Memorandum

U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

Subject: Honda briefing at ODI, September 4, 2003 **Date:** October 2, 2003

From: *Bob Young* - ODI

To: Public File, PE03-039 Honda Briefing Materials

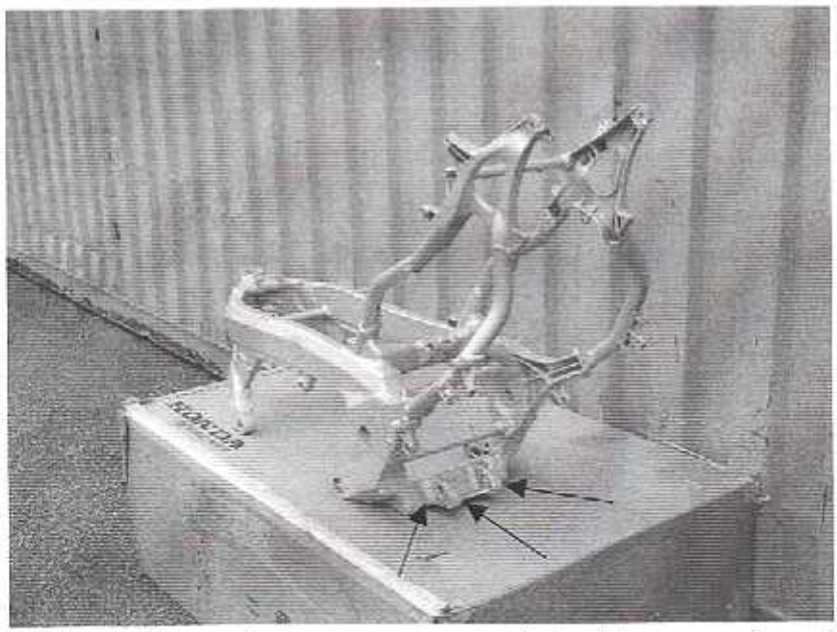
1.0 INTRODUCTION

On September 26, 2003 Honda provided ODI with the documents it used during its September 4th agency briefing. Included with these documents was the company's request that nine pages be treated by the agency as confidential business information and withheld from public access. NHTSA's Office of Chief Counsel (NCC) is currently evaluating that request. Material submitted without a request for confidential treatment is attached to this memo.

Honda requested the September 4th meeting to discuss lower crossmember failures on certain 2002/2003 model year GL1800's. This issue was (is) the subject of the National Highway Traffic Safety Administration (NHTSA) Office of Defect Investigations (ODI) Preliminary Evaluation (PE) 03-039. We opened this investigation after becoming aware of crossmember separations and resulting rear suspension collapse involving these motorcycles.

2.0 THE SUBJECT CROSSMEMBER

The following photograph shows the subject crossmember location.



Both the rear suspension lower linkage and the centerstand are attached to this crossmember and, should it separate from the frame, the rear suspension collapses (although the swing arm is still fully attached to the frame and its lateral positioning is fully maintained), the rear tire contacts the plastic fender liner, and the crossmember and/or centerstand drags on the ground.

3.0 A REAL-WORLD FAILURE

Prior to meeting with Honda, ODI gathered information concerning a failure in the Washington DC metro area. We interviewed the owner and inspected his 2003 GL1800. Here's what we learned:

On May 23, 2003 at about 5:00AM, the owner of a 2003 Honda GL1800, VIN 1HFSC47073A202741, built at Honda's Marysville, Ohio assembly plant in June 2002, was riding with his fellow Blue Knight chapter members on the inner loop of the Washington Beltway. They were traveling about 70mph on their way to Knoxville, TN. While approaching the Woodrow Wilson Bridge, he (and some others in his group) hit a pothole, damaging some of their motorcycles' wheels. He, alone, however, had a crossmember separation. The back of the bike dropped, the rear tire was pressed against the inner fender and sparks flew from the dragging crossmember and centerstand as he guided the bike toward the shoulder. He managed to stop the bike without further incident. Subsequently, a Honda field service representative inspected it. Initially, he recommended replacing the frame but a couple of days later Honda decided to offer the owner a "buyback" and exchanged the damaged bike for a new 2003 GL1800.

On August 13, 2003 ODI inspected the damaged machine and found the following:

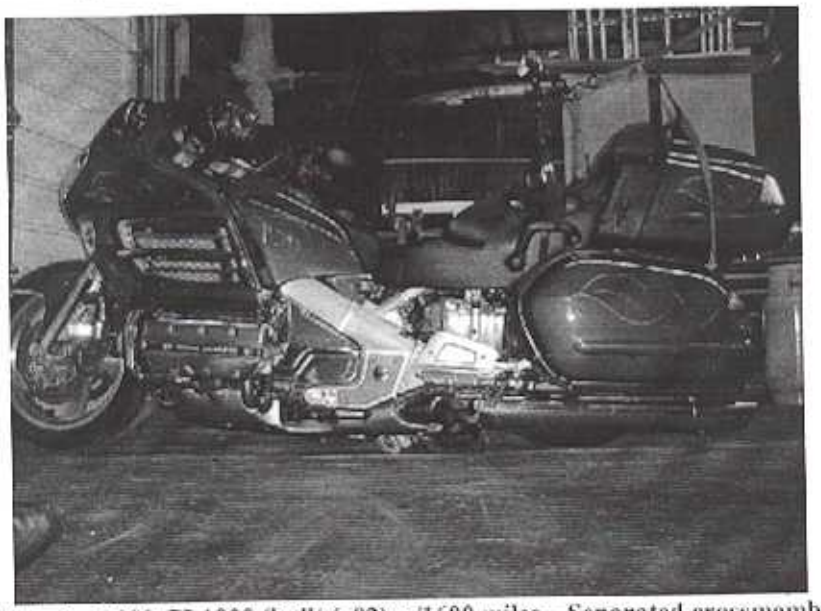


Photo 1 – 2002 GL1800 (built 6-02) w/1600 miles – Separated crossmember

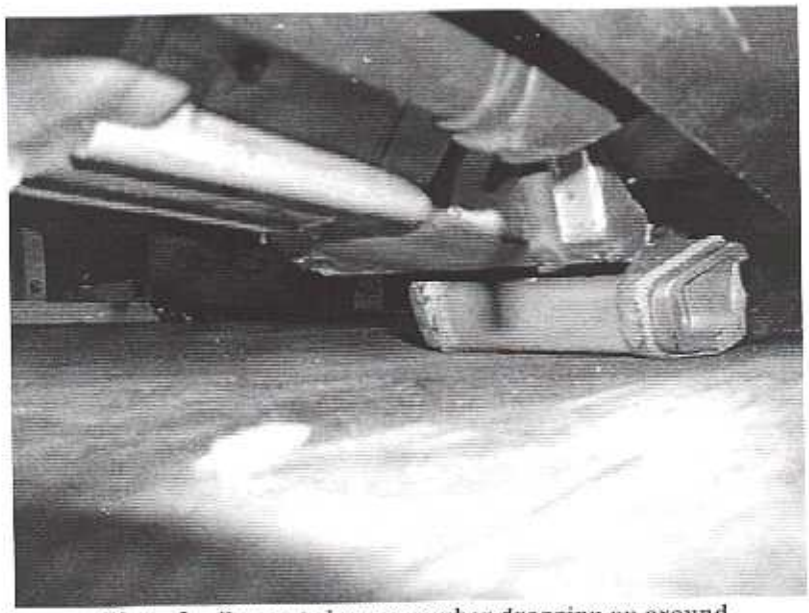


Photo 2 – Separated crossmember dragging on ground

Photo 3 – Separated crossmember and centerstand dragging on ground

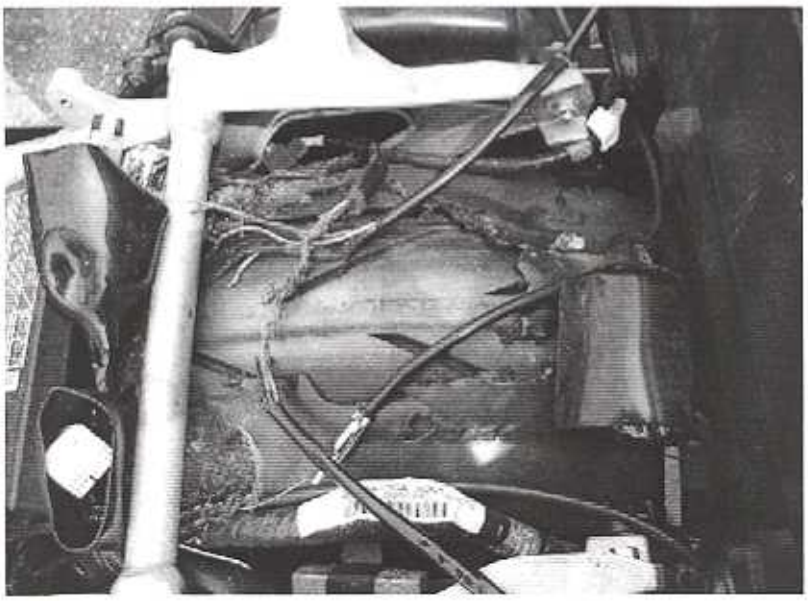


Photo 4 – Inner fender and speaker wires damaged due to tire contact (seat removed)

4.0 A REPLACEMENT FRAME, THE CROSSMEMBER, AND ITS WELDS

ODI also inspected the replacement frame, built in May 2003, intended for the motorcycle described in Section 3.0. This afforded us the unique opportunity to fully view the subject crossmember and its welds. The frame shown was never installed as Honda elected to replace the damaged machine with a new 2003 model.

The following photos show the crossmember and welds on the replacement frame.

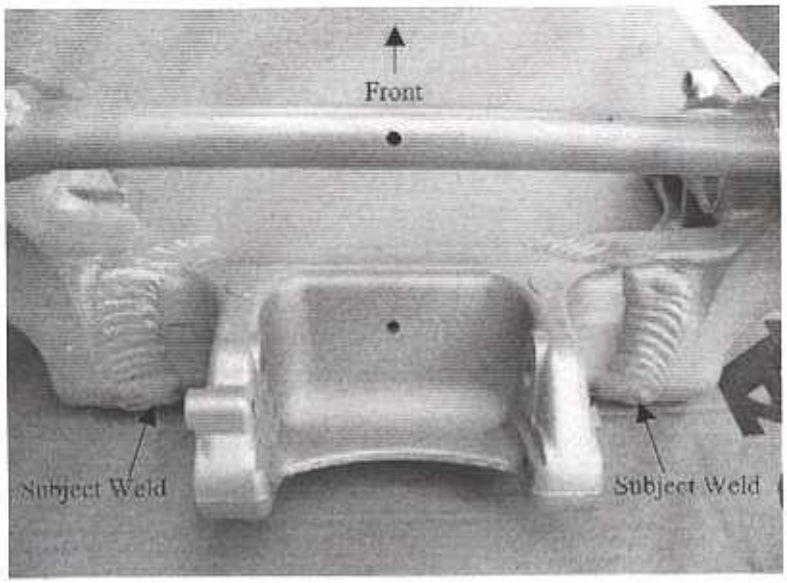


Photo 5 – Subject crossmember

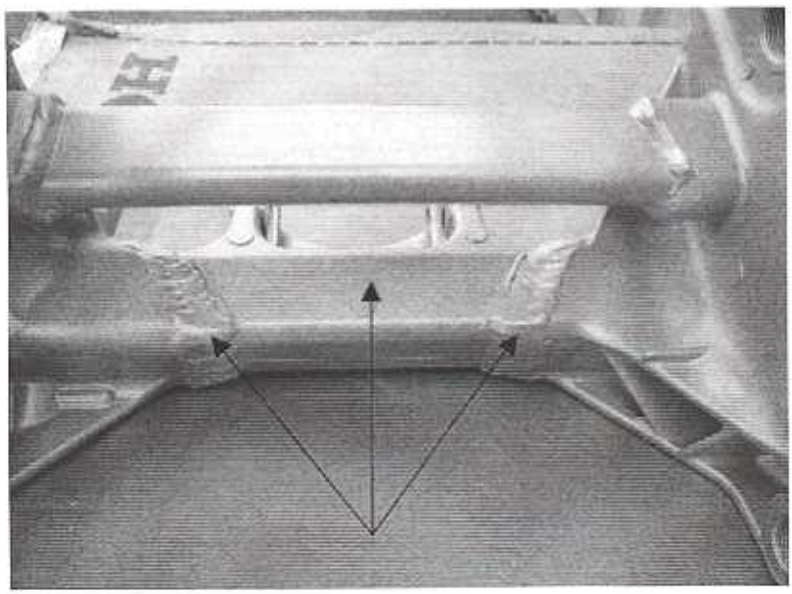


Photo 6 – Subject crossmember & Welds

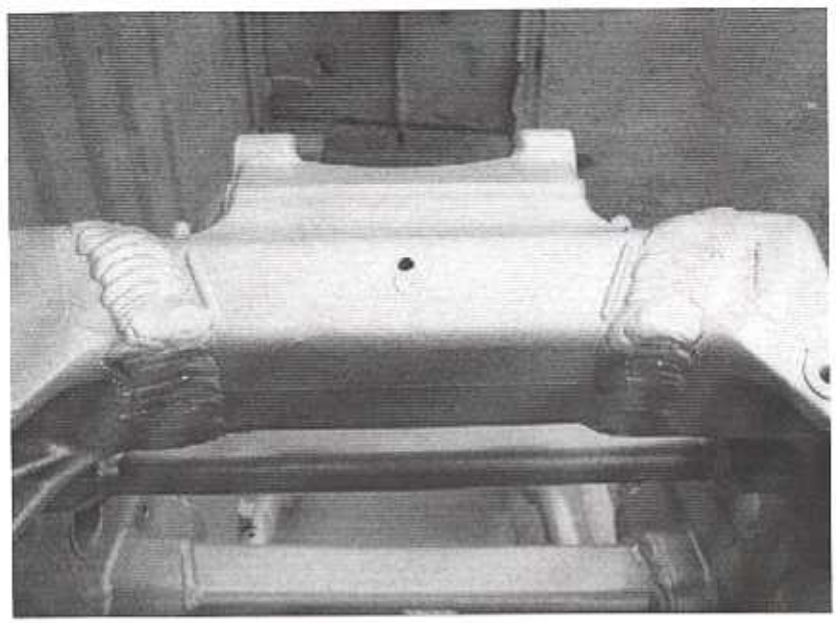


Photo 7 – Subject crossmember & Welds – Bottom View

5.0 HONDA'S BRIEFING

Honda's September 4th Agency briefing was organized into eight sections: 1) Inspection of both cracked and separated crossmember welds, 2) Honda's investigation of the cause, 3) Causation Summary, 4) Failure Predictability, 5) Safety Analysis, 6) Countermeasure Verification, 7) Probable Build Date Range affected by the problem, and 8) Investigation of Units outside the suspect build date range.

Honda's request that certain documents related to items 1, 2, 3, 5, and 6 be granted confidential treatment by the agency is being considered.

The confidentiality request and the "non-confidential" documents are found in Attachment 1.

6.0 HONDA'S SAFETY-RELATED RECALL

On September 16, 2003 Honda formally notified the Agency (Attachment 2) that the problem is safety-related and that it would conduct a safety recall (03V-350) to remedy those Myr 2002 and 2003 GL1800 "Gold Wing" model motorcycles it believed were built with crossmember welds not meeting its specifications. Honda will notify owners of the affected bikes by mail this week. The owner notification is Attachment 3.

6.1 Recall Remedy

While the recall notification sent to the Agency by Honda describes a remedy (i.e., the existing crossmember welds, *if not cracked*, will be reinforced with additional TIG welds applied by a person certified to perform TIG. TIG, otherwise known as Gas Tungsten Arc Welding (GTAW), is commonly used in high quality welding processes). On October 4, 2003, NHTSA received a complete "recall package" from Honda (Attachments 4 and 5) that includes a service bulletin. Page two of the bulletin tells the dealer, "If your inspection identifies a crack or cracks in or on either the Left or Right lower crossmember frame welds, **STOP** – call your DSM [District Service Manager] or TechLine for further instructions." As of October 7, 2003, Honda has not formally notified us of what action it will take to correct cracked crossmember welds that cannot, for whatever reason, be reinforced.

The Agency does not dictate to the manufacturer what form the remedy must take…manufacturers are responsible for crafting effective remedies. If the remedy does not appear to be effective (based on reports of remedy failures, for example), the agency may reopen the investigation and could request that a new remedy be provided.

Attachment 1

Honda's
September 4, 2003
NHTSA Briefing Materials
(Includes Confidentiality Request)

HONDA

American Honda Motor Co., Inc.
919 Torrance Boulevard
Torrance, CA 90501-2746
Phone (310) 783-2000

September 26, 2003

Office of the Chief Counsel
U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety
Administration
400 Seventh Street, S.W.
Washington, DC 20590

Re: PE03-039

Dear Chief Counsel:

Enclosed herewith is a Request for Confidentiality for your consideration. This material is related to the above-referenced matter.

Please advise me of your decision on this matter at your earliest convenience.

Sincerely,

AMERICAN HONDA MOTOR CO., INC.

William R. Willen
Managing Counsel
Product Regulatory Office

WRW:ke

Enclosure

cc: Richard P. Boyd

AFFIDAVIT IN SUPPORT OF REQUEST OF CONFIDENTIALITY

I, William R. Willen being duly sworn, depose and say:

1) That I am Managing Counsel of the Product Regulatory Office of the American Honda Motor Co., Inc., and that I am authorized by American Honda Motor Co., Inc., and Honda Motor Co., Ltd., to make the following representations to the National Highway Traffic Safety Administration on behalf of American Honda Motor Co., Inc.;

2) That certain information contained in pages 4 through 9 and pages 20 through 22 of the meeting presentation material attached herein, is confidential and proprietary data and is being submitted with the claim that it is entitled to confidential treatment under 5 U.S.C. 552(b)(4) (as incorporated by reference in and modified by S505(d)(1) of Title 5 of the Motor Vehicle Information and Cost Savings Act). American Honda is informed and believes that the disclosure of this information would result in significant competitive damage to the companies in that it contains proprietary information relating to Honda's production process;

3) That I have personally inquired of the responsible Honda Motor Co., Ltd. and Honda R&D Co., Ltd. (Honda), employees who have authority in the normal course of business to release the information for which a claim of confidentiality has been made to ascertain whether such information has ever been released outside Honda;

4) That based upon the responses to such inquiries, to the best of my knowledge and belief, the information for which Honda has claimed confidential treatment has not been, and is not intended to be, released by Honda, to any person, organization or government agency or body outside Honda, its subsidiaries, affiliates, or contracted vendors;

5) Based on information and belief, none of the documents listed in the presentation materials have been released outside of the governmental entities to which they were supplied;

6) That I make no representations beyond those contained in the affidavit and in particular I make no representations as to whether this information may have become available outside of Honda and its subsidiaries, because of unauthorized or inadvertent disclosure except as stated in Paragraph 4; and

7) That the information contained in the enumerated paragraphs of this affidavit is true and accurate to the best of my information, knowledge and belief.

William R. Willen

Subscribed and sworn to before me, this 26 day of September, 2003.

MARICELA R. FUNE
Commission # 1271251
Notary Public - California
Los Angeles County
My Comm. Expires Jul 21, 2004

NOTARY PUBLIC

GL1800 Lower Cross Pipe Issue

1 Confirmation of actual parts

2 Investigation of cause

3 Summary of cause

4 Predictability

5 Safety analysis

6 C/M verification

7 Suspect range

8 Investigation of units outside of the range

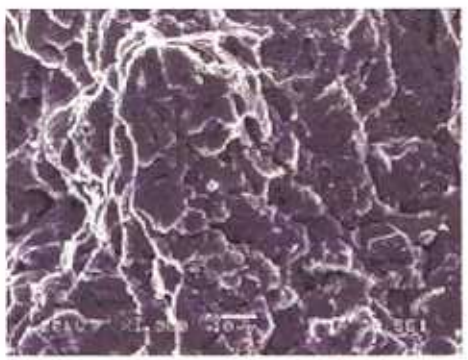
September 04, 2003

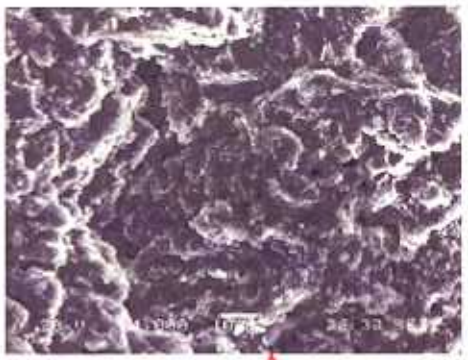
1. Confirmation of actual parts –①

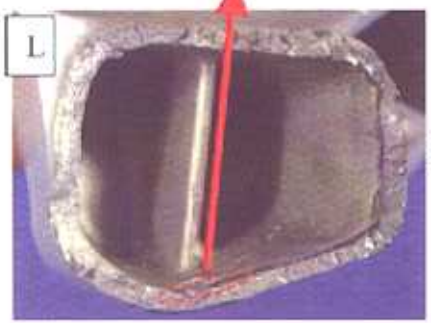
Analysis of broken surface

1 . Breakage originated from the inside of the welded area.

2 . Breakage was caused by a one-time impact. (Not fatigue broken)







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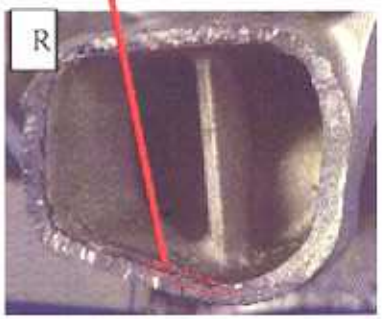
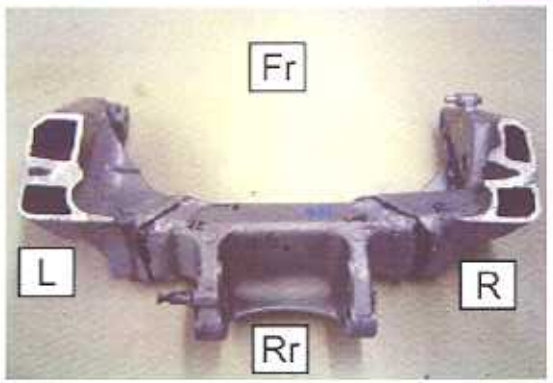


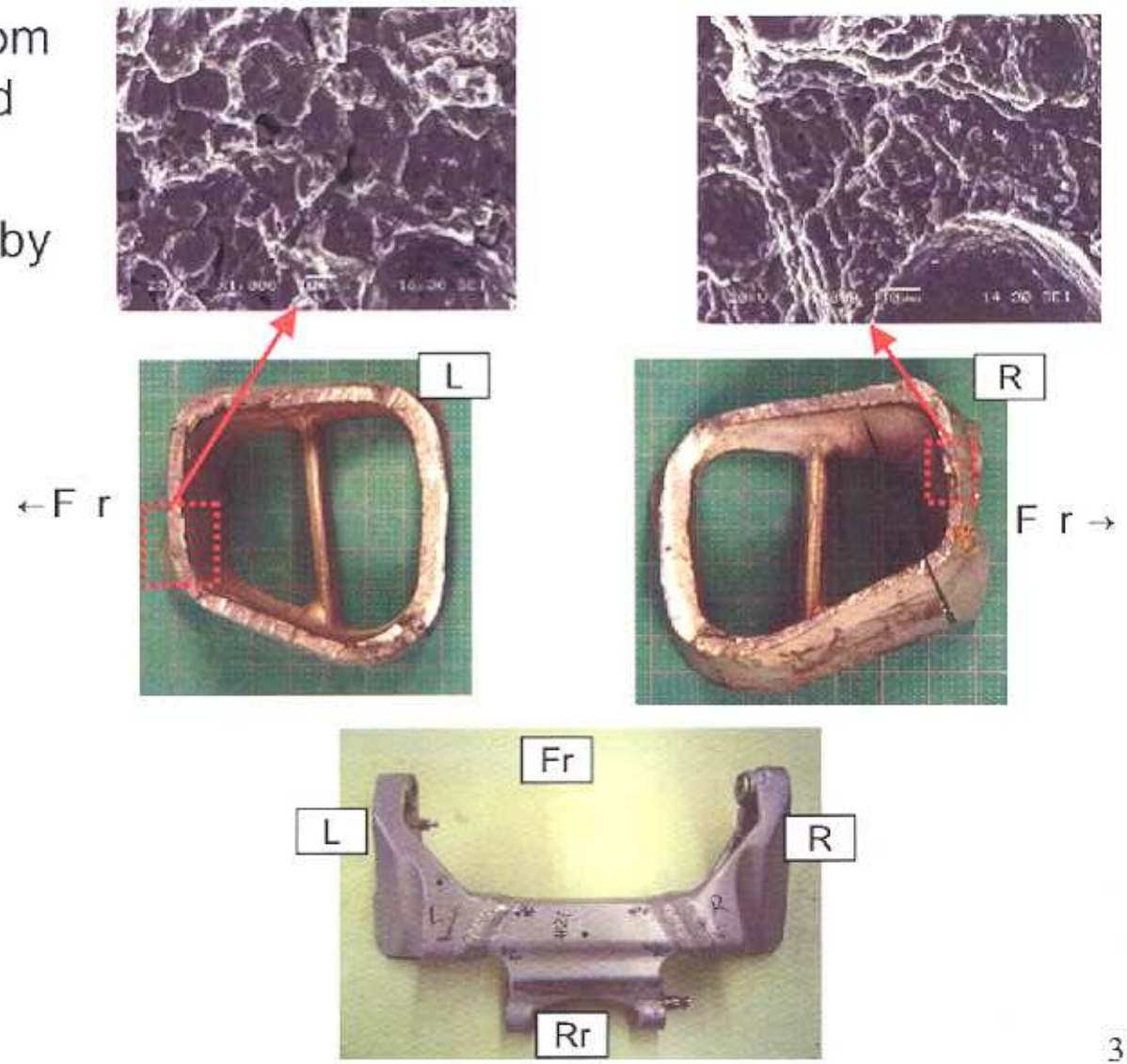


1. Confirmation of actual parts –②

Analysis of Crack surface

1 . Breakage originated from the inside of the welded area.

2 . Breakage was caused by a one-time impact.
(Not fatigue crack)

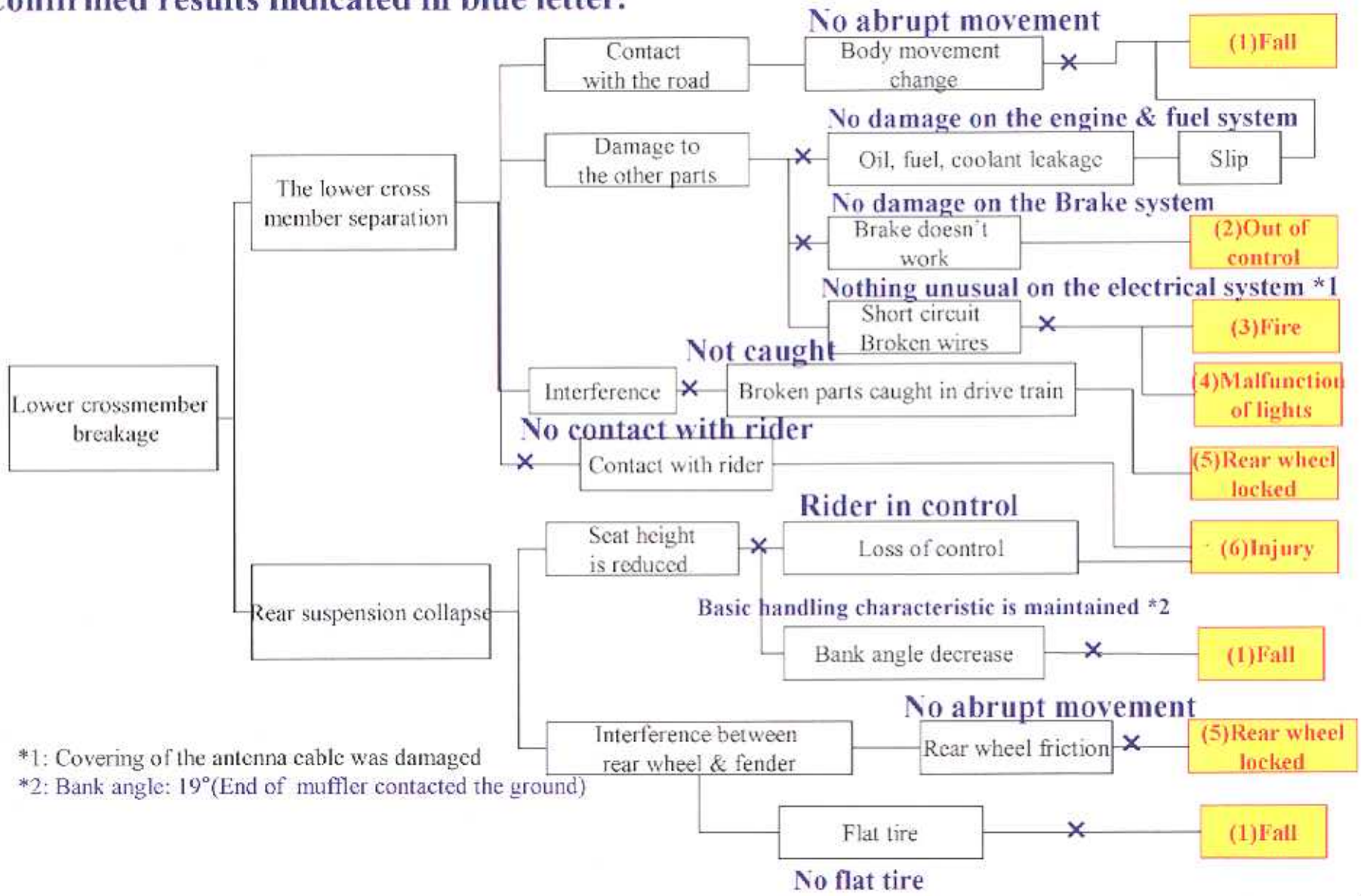


4. Predictability

Because there is no functional problem, customers cannot detect a problem until breakage occurs.

5. Safety Analysis—①-1

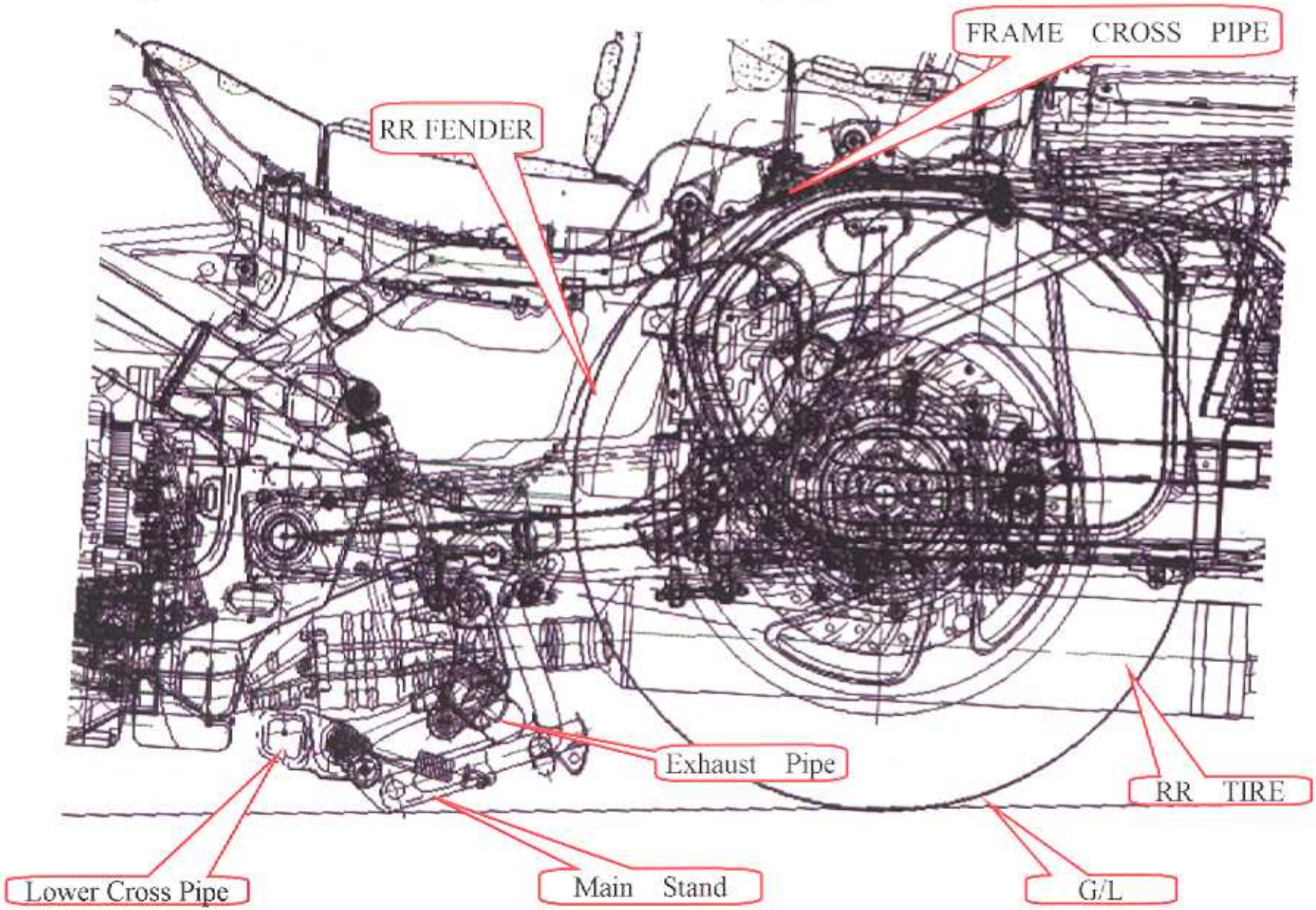
Confirmed results indicated in blue letter.



*1: Covering of the antenna cable was damaged
*2: Bank angle: 19°(End of muffler contacted the ground)

5. Safety Analysis—①-2

【Tire position when the lower cross pipe breakage】



5. Safety Analysis—②

■Summary

Even if the lower cross pipe breaks and rear tire contacts fender:

1. The vehicle can stop safely & under control.

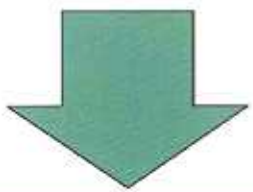
At the moment of separation the rider will feel a slight shock however, safety is not affected as there will be no fall or loss of control.

The ability to stop the vehicle safely is not compromised even when the rear tire is in contact with the fender.

2. No separation related system failures will occur.

Braking, electrical, and fuel systems are not compromised.

3. No accident or injury has been reported.



This is not a safety issue

5. Safety Analysis—③

■Recreation test for the lower cross pipe breakage

Purpose : To confirm that the rear tire does not lock and result in loss of control when the lower cross pipe is broken and the rear tire is in contact with the fender.

Test Condition : One rider (75kg) + Weight of Passenger (75kg) + Cargo Weight (30kg)

Contents of the videotape.

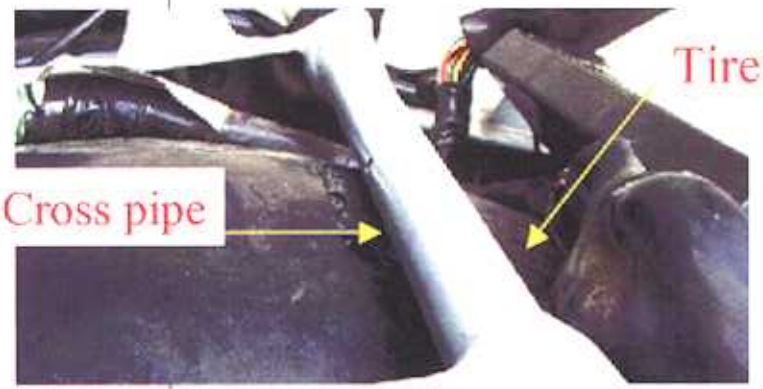
Running test when the lower cross pipe is broken.

1. STD vehicle's running condition while passing through a ramp
2. Recreating broken lower cross pipe at the same running condition, to show body motion at the moment of separation until motorcycle is stopped.

- To show maneuverability in a straight and turning condition to avoid danger after the separation.

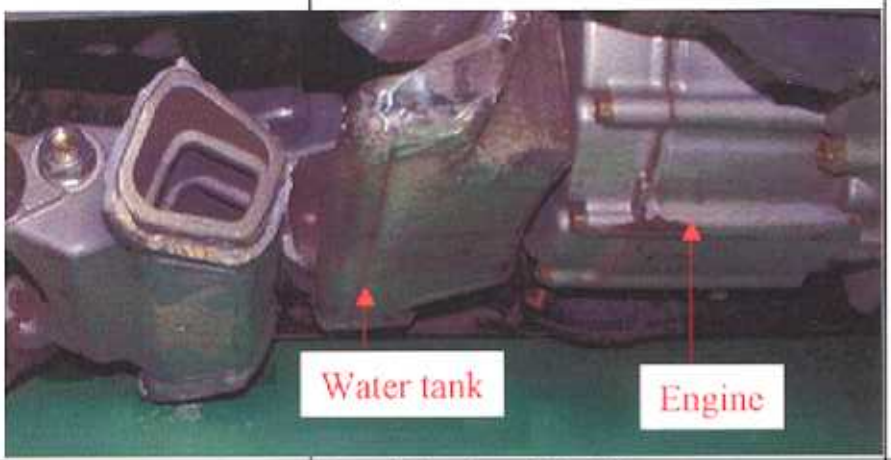
5. Safety Analysis—④

	potential problem	Phnomenon	Result
①	Fall	A puncture caused by interference between the rear tire and fender.	The fender is made of plastic and no sharp parts are in contact with rear tire. The cross pipe is cylindrical.
	The lower cross pipe contacts on the ground.	The clearence between the pipe and the load surface is approximately 42mm; no contact. The bottom of the centerstand interferes with the road surface, but it does not impede running due to its curved shape.	No abrupt movement



5. Safety Analysis—⑤

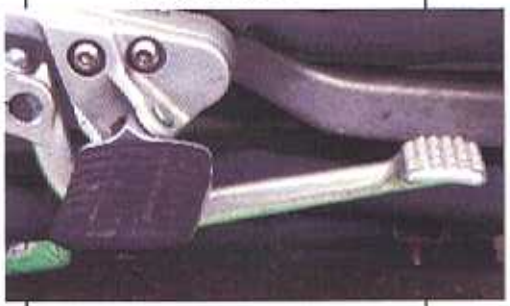
	Potential problem		Phenomenon	Result
②	fall	Slip by leakage of oil or coolant	The cross pipe hangs down out of place, but it does not come off nor cause any damage to the engine case and water tank.	No damage on the engine and cooling system.
		Bank angle decrease From the video of breakage test	dynamic bank angle is 19° Normal running and turning are still possible	Bank angle is slightly reduced.



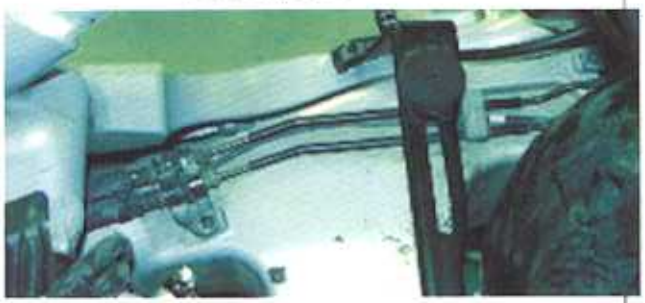
5. Safety Analysis—⑥

	Potential problem		Phenomenon	Result
②	Loss of control	Failure of drive train, transmission or braking system.	No interference to related components	No damage to any related components
③	Fire	Electrical harness, open circuit and short circuit	No harness open circuit or short circuit after separation and prior to stopping	Electrical system is normal
④	lights inoperative	Lights become inoperative before stopping.		

Pedal area

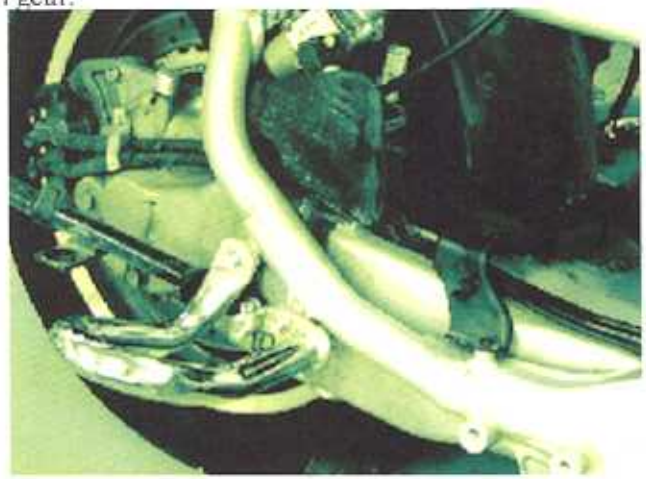
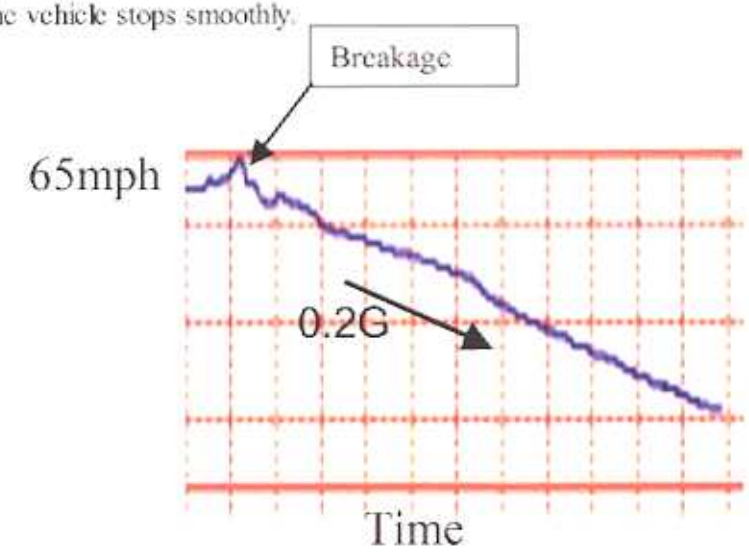


Brake pipe



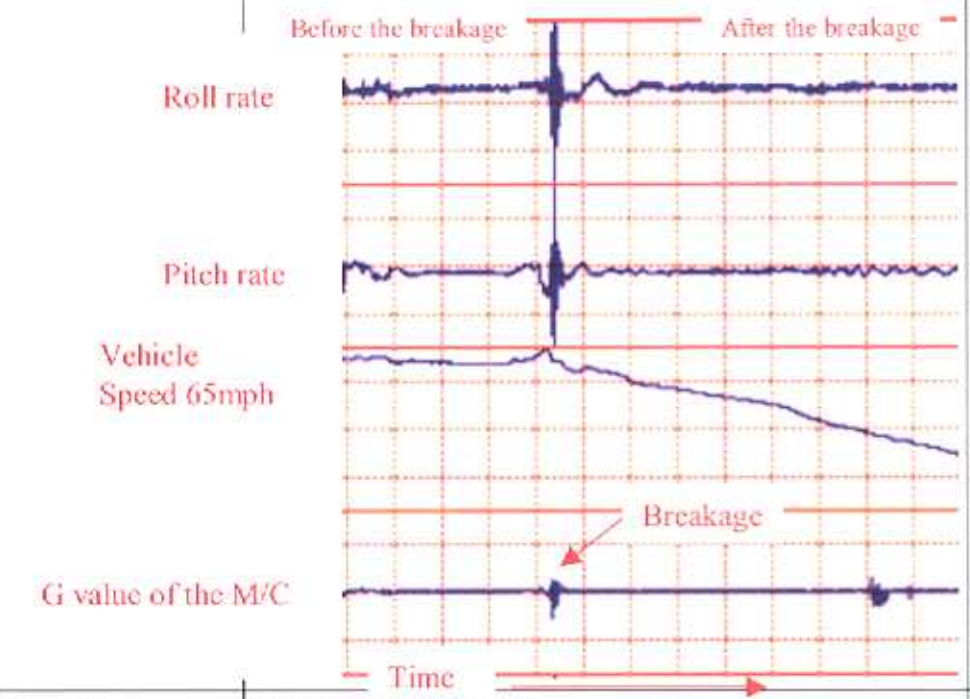
Caliper area

5. Safety Analysis— ⑦

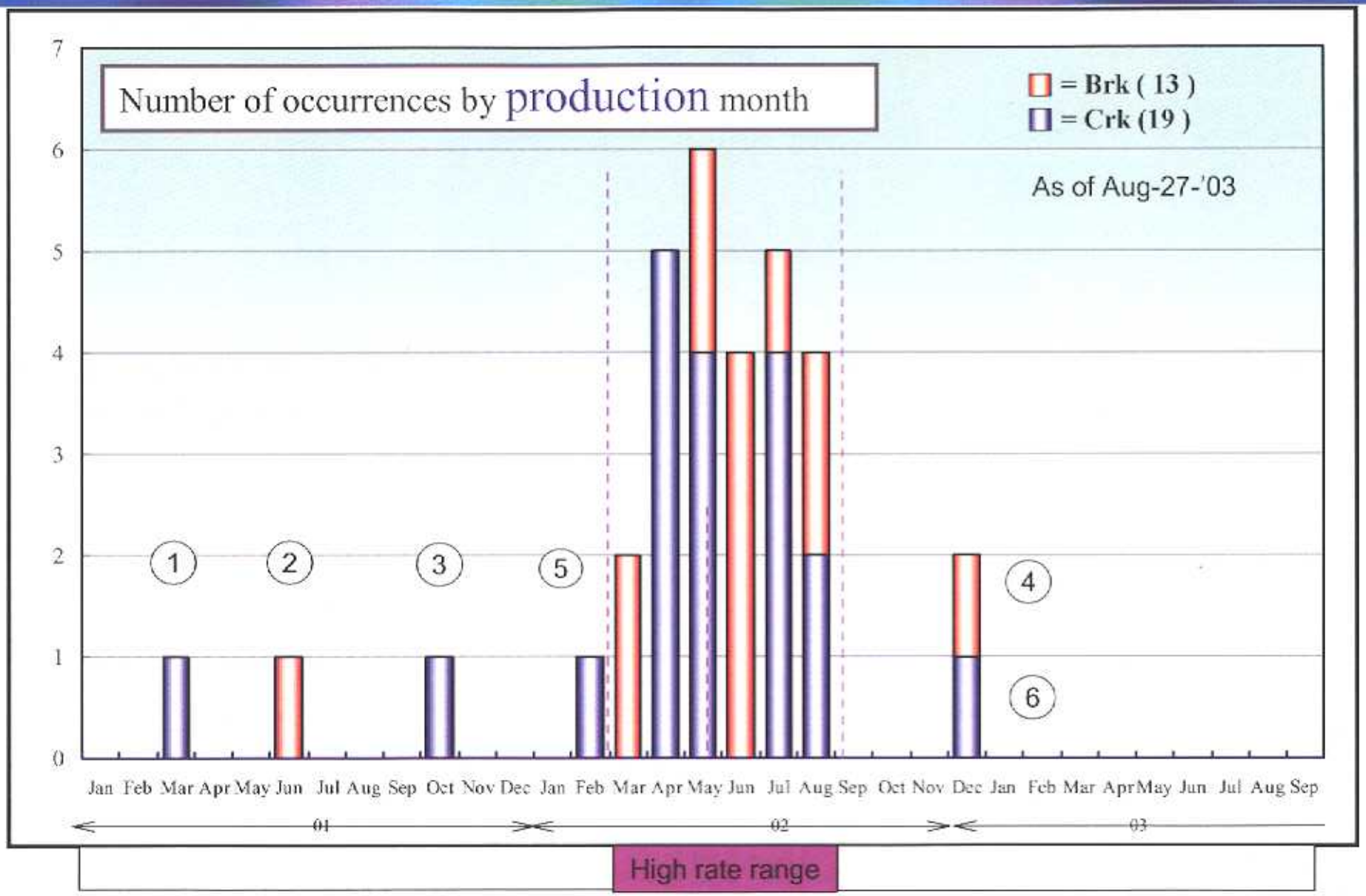
	Potential problem		Phenomenon	Result
⑤	Lock of the rear wheel	In case any broken parts are caught in the rear wheel, they may cause a lock..	①No parts are caught in the rotating unit, no damage of the swing arm, drive shaft, and final gear. 	No rear wheel lock occurs.
		Rear tire lock caused by interference from contact with fender.	During interference, the tire is not locked. The speed reduction is smooth, and the vehicle stops smoothly. 	

5. Safety Analysis—⑧

	Potential problem		Phenomenon	Result
⑥	Injury of the rider	Possibility of the rider being thrown from the bike by the shock of the cross pipe failure.	Very slight shock at the moment of failure. No significant difference in pitch rate and roll rate of body before and after the failure.	Rider remains on motorcycle.
		Parts dislodged from motorcycle can cause injury to the rider.	No parts are dislodged.	No injury to rider.



8 . Investigation of units outside of the range —①



8. Investigation of units outside of the range —②

	1	2	3	4	5	6
Mfg	Mar/'01	Jun/'01	Oct/'0 1	Dec/'02	Feb/'02	Dec/'02
State	LA	FL	NE	MI	PA	NY
Mile	50,067	1,416	27,634	3,445	17900	9387
Crk/Brk	Crk	Brk	Crk	Brk	Crk	Crk
Object	Unk	Pothole	Unk	Pothole		
Size	Unk	8"(depth)	Unk	(It felt big)		
MPH	Unk	35	Unk	20-25		
Riding		Single	Single	Single		
Weight of Rider						
Check result	Crack found at the seat rail.		Crack found at the seat rail.		Under investigation	

We believe the six cases experienced sudden large impact.

The End

Attachment 2

Honda's September 2003 Recall Notice to NHTSA

HONDA

American Honda Motor Co., Inc.
1919 Torrance Boulevard
Torrance, CA 90501-2746
Phone (310) 783-2000

September 16, 2003

Mr. Kenneth Weinstein,
Associate Administrator
Office of Safety Assurance
NATIONAL HIGHWAY TRAFFIC SAFETY
ADMINISTRATION
400 Seventh St., S.W.
Washington, DC 20590

Dear Mr. Weinstein:

On September 9, 2003, Honda Motor Co., Ltd. determined that a defect relating to motor vehicle safety exists in the frame of the motorcycles listed below. The following information is submitted pursuant to the requirements of 49 CFR 573.5.

573.5(c)(1)

Name of Manufacturer: Honda of America Manufacturing, Inc. (HAM)

Manufacturer's Agent: William R. Willen
American Honda Motor Co., Inc. (AHM)
1919 Torrance Blvd.
Torrance, CA 90501-2746

573.5(c)(2)

Identification of potentially affected vehicles:

Make/Model	Description	VINs/Dates of Manufacture
Honda GL1800	Certain 2002-2003 model year	1HFSC470*2A111803 – 1HFSC470*2A113582 1HFSC470*3A200001 – 1HFSC470*3A204860 Mar. 1, 2002 to Sept. 10, 2002
Honda GL1800A	Certain 2002-2003 model year	1HFSC474*2A102394 – 1HFSC474*2A102823 1HFSC474*3A200001 – 1HFSC474*3A201126 Mar. 1, 2002 to Sept. 10, 2002

Description of the basis for the determination of the recall population:
Based on manufacturing records, potentially improper welds are limited to a seven-month period in 2002. Process changes applied to the production line corrected the welding for vehicles manufactured after the affected range.

573.5(c)(3)

Total number of vehicles potentially affected: 8,196

573.5(c)(4)

Percentage of affected vehicles that contain the defect: Unknown

573.5(c)(5)

Defect description:

Certain frame welds do not meet manufacturing specifications. High loads created when riding on rough road surfaces or through potholes can cause the affected welds to crack. In the worst case, the welded area could break, resulting in rear suspension collapse or lower cross member separation. No rear-wheel lockup, crashes or injuries have been reported.

573.5(c)(6)

Chronology:

Jul. 8, 2002	AHM received a dealer report of a broken GL1800 frame.
Aug. 8, 2002	AHM's customer relations department received a second broken frame report.
Aug. 27, 2002	HAM completed a material analysis of the first broken frame, which was caused by a large impact.
Sep. 10, 2002	A welding process change was applied to production. AHM and HAM continued to watch the market.
Jan. 21, 2003	AHM received the first report of cracked frame welds.
Mar. 31, 2003	AHM received a dealer report of a third broken frame.
May 11, 2003	AHM asked HMC to expedite the investigation.
Jul. 22, 2003	AHM requested a meeting with NHTSA.
Sep. 4, 2003	Honda meeting with NHTSA.
Sep. 9, 2003	HMC determined that a safety-related defect exists.

573.5(c)(8)(i)

Program for remedying the defect:

Dealers will inspect and repair all frames within the affected range. The repair will consist of reinforcing welds, which will be done free of charge.

573.5(c)(8)(ii)

The estimated date to begin sending notifications to owners: Oct. 6, 2003

The date that dealers were notified: Sep. 11, 2003

The estimated date of completion of the notification: Oct. 6, 2003

573.5(c)(9)

Representative copies of all notices, bulletins and other communications:

A copy of the dealer service bulletin and text of the final customer notification letter will be submitted to your office as soon as possible.

573.5(c)(10)

Proposed owner notification letter submission:

A draft of the owner notification letter will be submitted to your office as soon as possible.

Sincerely,

AMERICAN HONDA MOTOR CO., INC.

William R. Willen
Managing Counsel
Product Regulatory Office

WRW:ke

Attachment 3

Honda's
October 2003
Recall Notice to Owners

TEXT OF CUSTOMER LETTER

October 2003

IMPORTANT SAFETY RECALL NOTICE

Dear Gold Wing 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?

Honda Motor Co., Ltd. has decided that a defect relating to motor vehicle safety exists in certain 2002 and 2003 model year Gold Wings (GL1800/A). Certain frame welds do not meet manufacturing specifications. High loads created when riding on rough road surfaces or through potholes can cause the affected welds to crack. In the worst case, the welded area could break without warning, resulting in lower cross member separation and rear suspension collapse. This could result in a crash. However, no rear wheel lockup, crashes or injuries have been reported.

What should you do?

Call any authorized Honda motorcycle dealer and make an appointment to have your frame repaired. The dealer will coordinate scheduling with you. The affected welds will be reinforced according to a factory-prepared welding manual, free of charge.

Who to contact if you experience problems.

If you are not satisfied with the service you receive from your Honda dealer, you may write to:

American Honda Motor Co., Inc.
Motorcycle Customer Support
Mail Stop 100-4W-5B
1919 Torrance Blvd.
Torrance, CA 90501-2746

If you believe that American Honda or the dealer has failed or is unable to remedy the defect in your motorcycle, without charge, within a reasonable period of time (60 days from the date you first contact the dealer for a repair appointment), you may submit a complaint to:

Administrator
National Highway Traffic Safety Administration
400 Seventh Street, SW
Washington, DC 20590

Or call the toll-free Safety Hotline at (888) 327-4236.

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

Our records show that you are the current owner of a 2002 or 2003 GL1800 involved in this recall. If this is not the case, or the name/address information is not correct, please fill out and return the enclosed, postage-paid Information Change Card. We will then update our records.

If you have questions.

If you have any questions about this notice, or need assistance with locating a Honda dealer, please call Motorcycle Customer Support at (866) 784-1870. You may also visit our Web site at *www.hondamotorcycle.com* and click on "find a dealer" to locate a Honda dealer who can assist you.

We apologize for any inconvenience this campaign may cause you.

Sincerely,

American Honda Motor Co., Inc.

Honda Motorcycle Division

Attachment 4

Honda's
October 3, 2003
Recall "Package" Documents

HONDA

American Honda Motor Co., Inc.
1919 Torrance Boulevard
Torrance, CA 90501-2746
Phone (310) 783-2000

October 3, 2003

NVS-214jry
PE03-039

Mr. Richard P. Boyd, Chief
MHTD Division
Office of Defects Investigation
U.S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, DC 20590

Dear Mr. Boyd:

Enclosed are materials prepared for the GL1800 frame weld recall.

- Recall service bulletin
- Frame weld inspection chart
- Recall dealer procedure manual
- Frame welding manual
- Welding template kit

Also enclosed is a letter to GL1800 owners whose frames are not affected by the recall.

If you have questions, please contact me.

Sincerely,

AMERICAN HONDA MOTOR CO., INC.

William R. Willen
Managing Counsel
Product Regulatory Office

Enclosures

HONDA

Service Bulletin

American Honda Motor Co., Inc.

SAFETY RECALL

2002-2003 GL1800/A
Frame Weld

American Honda is conducting a Safety Recall on affected 2002-2003 GL1800/A Gold Wings to reinforce frame welds.

Some units within the affected VIN range may have lower crossmember frame welds that do not meet original manufacturing specifications. Under certain conditions, some existing unreinforced welds can crack, or fail.

The repair procedure consists of adding additional TIG welding to the frame where the lower cross member joins the side rails.

AFFECTED UNITS

2002

GL1800 (Non-ABS):
1HFSC470*2A111803 thru 1HFSC470*2A113582

GL1800A (ABS):
1HFSC474*2A102394 thru 1HFSC474*2A102823

2003

GL1800 (Non-ABS):
1HFSC470*3A200001 thru 1HFSC470*3A204860

GL1800A (ABS):
1HFSC474*3A200001 thru 1HFSC474*3A201126

(*) = Check digit

NOTE: Trikes and vehicles with sidecars attached are excluded from this Safety Recall.

CUSTOMER NOTIFICATION

American Honda has sent a letter to owners of all affected 2002-2003 GL1800/A Gold Wings informing them they must bring their motorcycles to a Honda motorcycle dealer to have the Safety Recall procedure performed.

Your assistance is needed to ensure that your GL1800/A customers are informed of this Safety Recall. For your reference, the text of the customer letter is reproduced on page 4 of this bulletin. The repair must be performed on any affected motorcycle brought to your dealership.

DEALER INVENTORY

DO NOT sell any affected 2002-2003 GL1800/A until the repair has been completed. All new or used affected units in your inventory **must** be repaired before release to the customer.

INSPECTION

Before you begin this repair, check if the unit has already had the repair performed.

If the unit has been repaired, you should find a punch mark on the lower right hand corner of the VIN plate (see IDENTIFICATION).

If the unit has not been repaired, determine if the lower crossmember frame welds are cracked.

- If your inspection identifies a crack or cracks in or on either Left or Right lower crossmember frame welds, **STOP** – call your DSM or TechLine for further instructions.
- If your inspection reveals no cracks, proceed to REPAIR PROCEDURE.

NOTE: Verification of repair can also be found in the Dealer Responsibility Report and on the Honda Interactive Network (iN). If you have any questions about verification, please contact TechLine **before** proceeding.

REPAIR PROCEDURE OVERVIEW

IMPORTANT: For complete Dealer and Welder Repair procedures, refer to the following items:

- **2002-2003 GL1800/A Frame Weld Safety Recall Dealer Booklet** (S0510)
- **Frame Weld Inspection Chart** (S0513)

You **MUST** provide your TIG welder with the following items:

- **2002-2003 GL1800/A Frame Weld Safety Recall Welding Manual** (S0511)
- **Welding Template Box** (S0512)

All of the above items were shipped to you with this Service Bulletin. If you need additional copies of the *Dealer Booklet*, *Welding Manual*, *Welding Template Box*, or *Frame Weld Inspection Chart*, you may order them at no cost from DDS at (440) 572-0725.

For your reference, a brief repair procedure overview is provided below.

Disassembly Overview

You will be removing the following components from the vehicle as instructed in the *Dealer Booklet*:

- Handlebar weights
- Rear view mirrors
- Swingarm pivot covers
- Rider foot pegs
- Seat
- Side covers/Engine side covers
- Fairing pockets
- Fairing molding
- Meter panel
- Top shelter
- Battery
- Fuel tank
- Main wiring harness ground
- Front lower fairing
- Front exhaust pipe protector
- Muffler/exhaust pipe
- Antenna Whip(s)
- Coolant reserve tank
- Center stand

NOTE: You will need to remove any accessories that may contact the ground during the Welding and Re-assembly procedures.

IMPORTANT: You **MUST** cover the following with RED duct tape for welder identification purposes:

- Negative (-) and positive (+) battery cables
- Fuel return hose end
- Fuel feed hose end
- Main wiring harness ground
- Alternator
- Exhaust ports

Welding Overview

A qualified TIG welder will weld the frame following the procedures in the *2002-2003 GL1800/A Frame Weld Safety Recall Welding Manual*.

Re-assembly Overview

You will be inspecting the new TIG welds, painting the frame, and re-assembling the vehicle as detailed in the *Dealer Booklet* and *Frame Weld Inspection Chart* (S0513).

REPAIR IDENTIFICATION

After you have completed the disassembly, welding, painting, and re-assembly procedures, make a punch mark on the lower right hand corner of the VIN plate, as shown below.

PARTS INFORMATION

You do not need to order this kit. Initial parts kits will be automatically allocated by American Honda based on the number of units invoiced to your dealership. You will be notified when kits are available for open ordering.

Frame Parts Kit (Weld)
P/N: 18390-MCA-305, H/C: 7620982

This kit includes:

- Fiber washer (8)
- Exhaust gasket (6)
- Muffler packing (3)
- Shock linkage seal (2)
- Fuel feed hose O-ring (1)

NOTE: One kit will be required for each vehicle.

WARRANTY INFORMATION

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 TechLine has provided you with different claim filing instructions, please file your claim per those instructions. You should not file two claims.

Template # P12A

Template reimbursement includes:

18390-MCA-305 (1) Frame Parts Kit (Weld)

$2.00 materials reimbursement for paint

Flat Rate Time: 5.5 hours
(Includes disassembly, transport to and from welder, painting and re-assembly, and 1.0 hour for removal/reinstallation of accessories.)

Sublet for Welding

Be sure to select the following on your template claim:

1. Sublet Involved – Yes
2. Sublet Description – Welding
3. Invoice Number – from invoice
4. Amount – from invoice

TEXT OF CUSTOMER LETTER

October 2003

IMPORTANT SAFETY RECALL NOTICE

Dear Gold Wing 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?

Honda Motor Co., Ltd. has decided that a defect relating to motor vehicle safety exists in certain 2002 and 2003 model year Gold Wings (GL1800/A). Certain frame welds do not meet manufacturing specifications. High loads created when riding on rough road surfaces or through potholes can cause the affected welds to crack. In the worst case, the welded area could break without warning, resulting in lower cross member separation and rear suspension collapse. This could result in a crash. However, no rear-wheel lockup, crashes or injuries have been reported.

What should you do?

Call any authorized Honda motorcycle dealer and make an appointment to have your frame repaired. The dealer will coordinate scheduling with you. The affected welds will be reinforced according to a factory-prepared welding manual, free of charge.

Who to contact if you experience problems.

If you are not satisfied with the service you receive from your Honda dealer, you may write to:

American Honda Motor Co., Inc.
Motorcycle Customer Support
Mail Stop 100-4W-5B
1919 Torrance Blvd.
Torrance, CA 90501-2746

If you believe that American Honda or the dealer has failed or is unable to remedy the defect in your motorcycle, without charge, within a reasonable period of time (60 days from the date you first contact the dealer for a repair appointment), you may submit a complaint to:

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If you have questions.

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We apologize for any inconvenience this campaign may cause you.

Sincerely,

American Honda Motor Co., Inc.

Honda Motorcycle Division

HONDA

2002-2003 GL1800/A Frame Weld Safety Recall

Frame Weld Inspection Chart

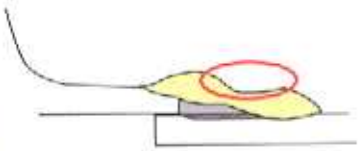
Refer to Service Bulletin GL1800/A #14

IMPORTANT:
If you find any No Good welds, call your DSM or TechLine at (800) 421-1900 for further instructions.

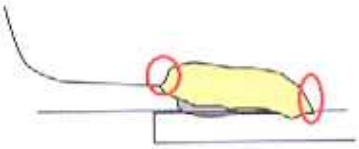
2002-2003 GL1800/A Safety Recall:

No Good Welds

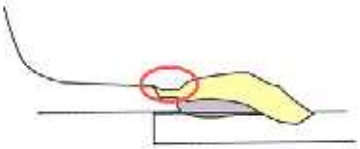
1 Concave Weld



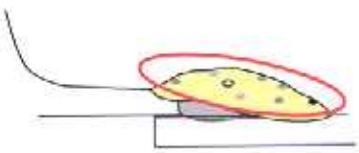
2 Cold Weld



3 Under Cut Weld

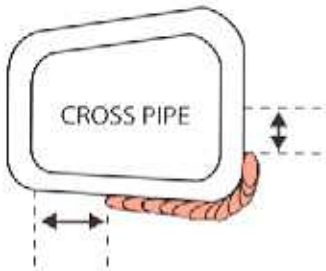


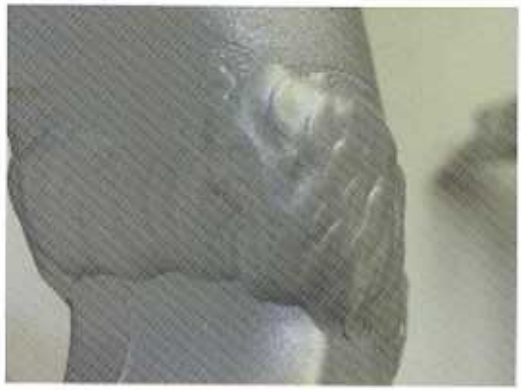
4 Dirty Weld



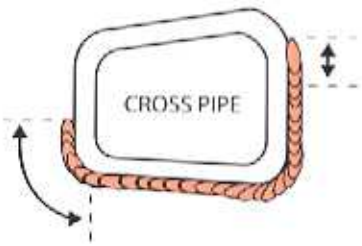
Frame Weld Inspection Chart

5 Too Short Weld

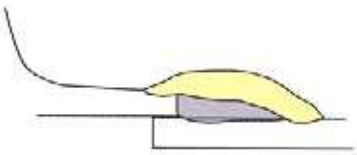


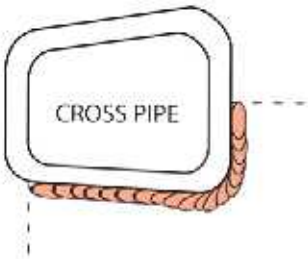


6 Too Long Weld



Good Welds





2002-2003 GL1800/A Frame Weld Safety Recall

Dealer Procedures*

GOLDWING

*Refer to Service Bulletin GL1800/A #14

HONDA

GL1800 Frame Preparation/Disassembly

SERVICE INFORMATION

This booklet covers the Disassembly, Welding, and Re-assembly procedures necessary for this Safety Recall. If you have Inspection or Warranty questions, see **Service Bulletin GL1800/A #14.**

Follow the procedures in this booklet carefully to prepare the GL1800/A for frame welding.

If there are any Genuine Honda or aftermarket accessories installed on the vehicle that will interfere with the procedures in this booklet, you must remove them first.

A Few Words About Safety

The service and repair information in this manual is intended for use by qualified, professional technicians. Attempting to use it without the proper training, tools, and equipment could cause injury to you or others. It could also damage the vehicle or create an unsafe condition.

⚠ WARNING

Failure to properly follow instructions and precautions can cause you or others to be seriously hurt or killed.

Follow the procedures and precautions in this manual carefully.

Because this manual is intended for the professional service technician, we do not provide warnings about many basic shop safety practices (e.g., hot parts - wear gloves). If you have not received shop safety training, or do not feel confident about your knowledge of safe servicing practices, we recommend that you do not attempt to perform the procedures described in this manual.

Some of the most important general service safety precautions are given on the following page. However, we cannot warn you of every conceivable hazard that can arise in performing the required procedures. Only you can decide whether or not you should perform a given task.

Important Safety Precautions

- Make sure you have a clear understanding of all basic shop safety practices.
- Read all the instructions before you begin, and make sure you have the tools and skills required to perform the tasks.
- Wear proper eye protection, gloves, safety shoes, and other protective wear when needed.
- Be sure the engine and exhaust system are cool before working in those areas.
- To prevent fire or explosion, keep all cigarettes, sparks, and flames away when working around gasoline or batteries, and never drain or store gasoline in an open container.
- Make sure the vehicle is securely supported anytime you lift it on a hoist or stand.

Tools and Supplies

- Phillips screwdriver
- Flat-head screwdriver
- Hex wrench (5 and 6 mm)
- Open-end wrench (10 and 14 mm)
- Rachet
- Medium length rachet extension
- Socket (8, 10, 12, and 14 mm)
- Torque wrench
- Needle nose pliers
- Shop towel
- Red duct tape (will be used by welder for safety identification)

Parts Needed

Frame Parts Kit (Weld)
P/N: 18390-MCA-305
H/C: 7620982

Parts kit includes the following parts:

- Fiber washer (8)
- Exhaust gasket (6)
- Muffler packing (3)
- Shock linkage seal (2)

1. REMOVE THE FUEL TO APPROXIMATELY 1/4 TANK.

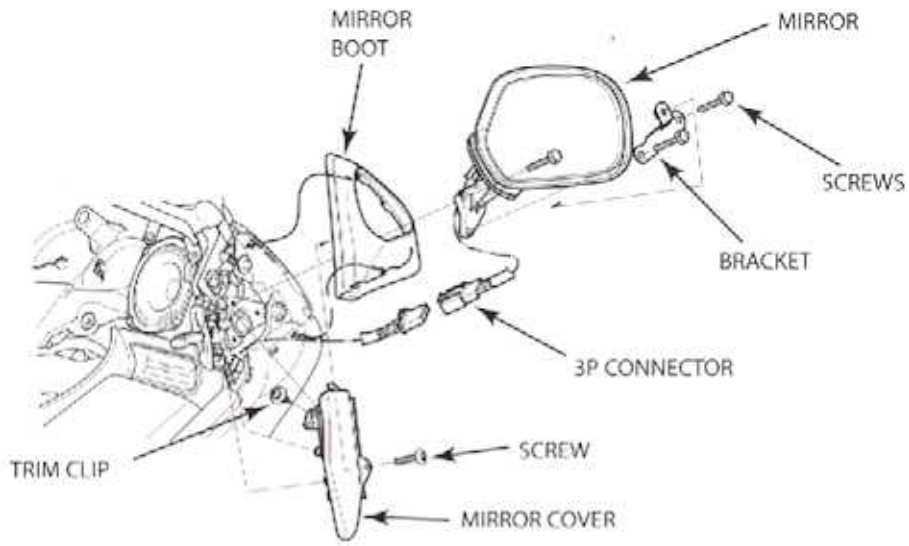
2. SET THE REAR SHOCK SPRING PRELOAD TO "0".

3. REMOVE THE HANDLEBAR WEIGHTS

Hold the handlebar weight and remove the mounting screw and the weight (both sides).

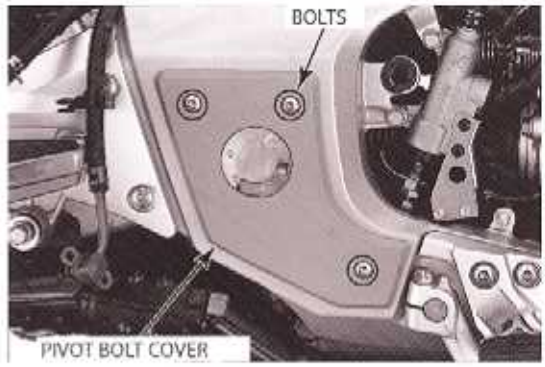
4. REMOVE THE REAR VIEW MIRRORS

Remove the right mirror boot from the front fairing.
Remove the trim clip, screw, and mirror cover.
Remove the three screws, bracket, and mirror.
Disconnect the turn signal light 3P connector.
Repeat for the left side.



5. REMOVE THE SWINGARM PIVOT COVERS.

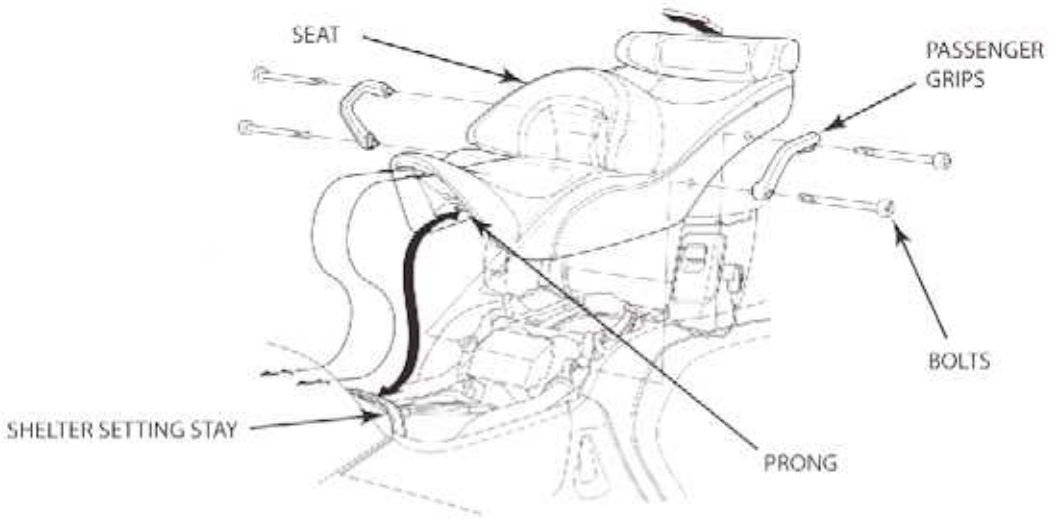
Remove the mounting bolts and remove the swingarm pivot covers from both sides.



6. REMOVE THE RIDER FOOT PEGS

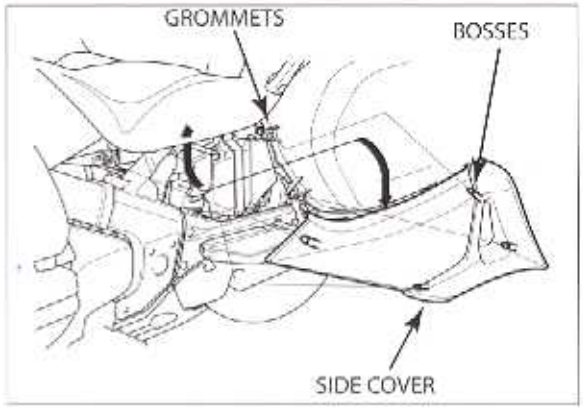
7. REMOVE THE SEAT

Remove the four bolts and passenger grips.
Raise the rear of the seat and remove the seat by sliding it rearward.



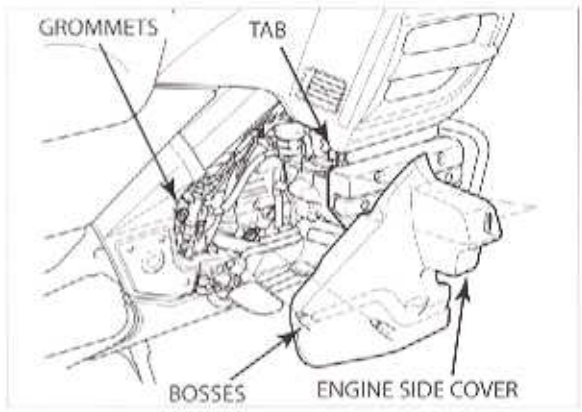
8. REMOVE THE SIDE COVERS

Remove the side cover by releasing the four bosses from the grommets, being careful not to dislodge the gromments. Repeat for the other side.



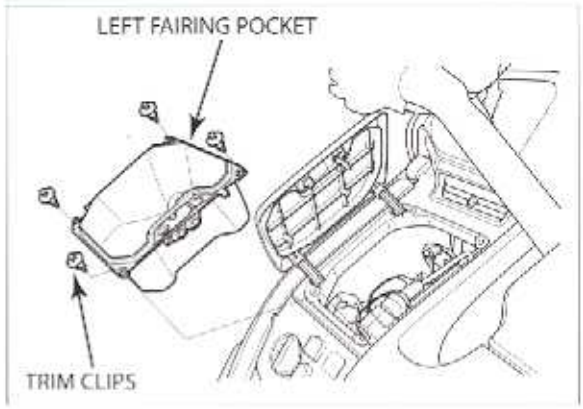
9. REMOVE THE ENGINE SIDE COVERS

Release the two bosses from the grommets, free the front portion from the tab of the injector cover, and remove the engine side cover. Repeat for the other side.

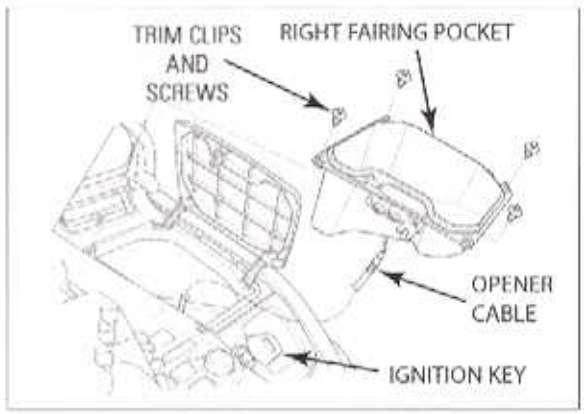


10. REMOVE THE FAIRING POCKETS

Push the opener button and open the left fairing pocket lid.
Remove the four trim clips by pushing the center pins in, and remove the fairing pocket.



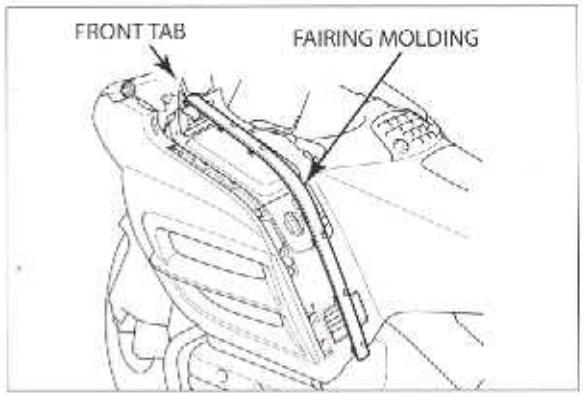
Insert the ignition key into the lock cylinder and open the right fairing pocket lid by turning the key clockwise.
Remove the two screws. Remove the two trim clips by pushing the center pins in.
Disconnect the opener cable and remove the right fairing pocket.



11. REMOVE THE FAIRING MOLDING

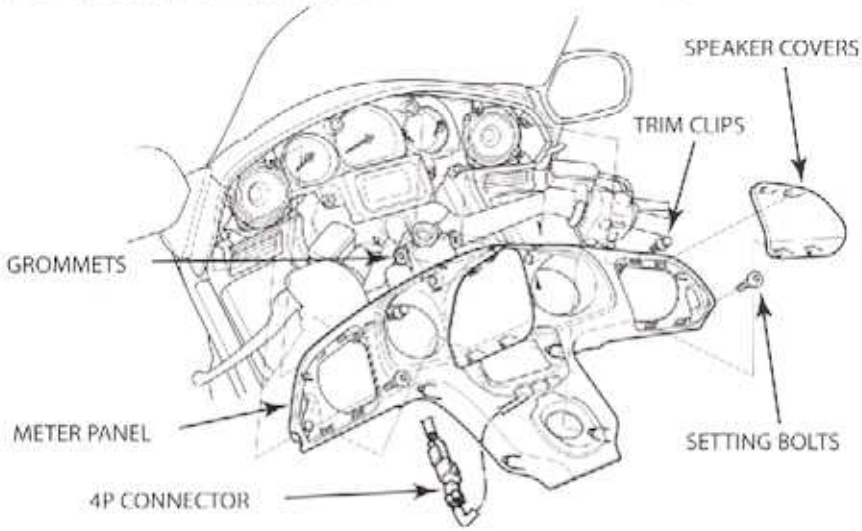
Carefully release the left front tab first, then release the other tabs and remove the fairing molding.

Repeat for the right side.



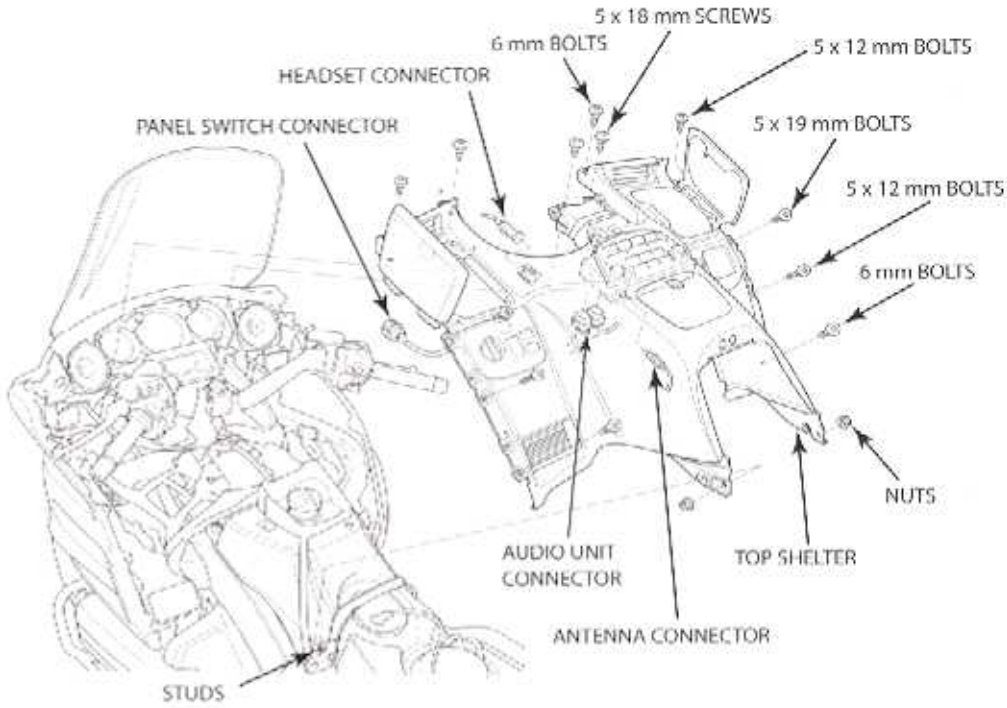
12. REMOVE THE METER PANEL

Remove the speaker covers by releasing the four tabs for each cover. Be careful not to dislodge the grommets.
Remove the two trim clips and setting bolts.
Release the four bosses from the grommets, disconnect the multi-display control switch 4P connector and remove the meter panel.



13. REMOVE THE TOP SHELTER

Remove the headset connector from the holder.
Remove the two 5 x 18 mm, four 5 x 12 mm, two 5 x 19 mm and four 6 mm setting bolts.
Remove the two nuts and remove the rear ends of the top shelter from the studs.
Disconnect the left panel switch assembly, antenna and audio unit connectors, and remove the top shelter.



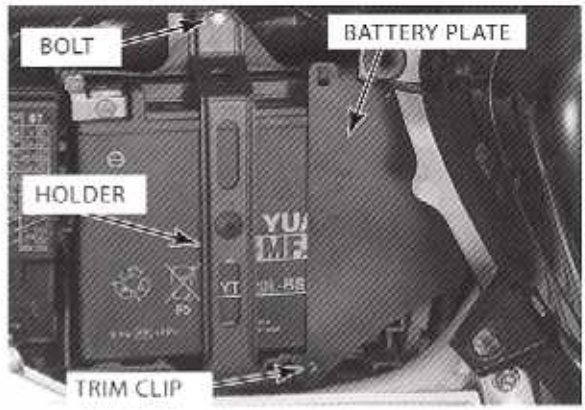
14. REMOVE THE BATTERY

Remove the trim clip and battery plate.

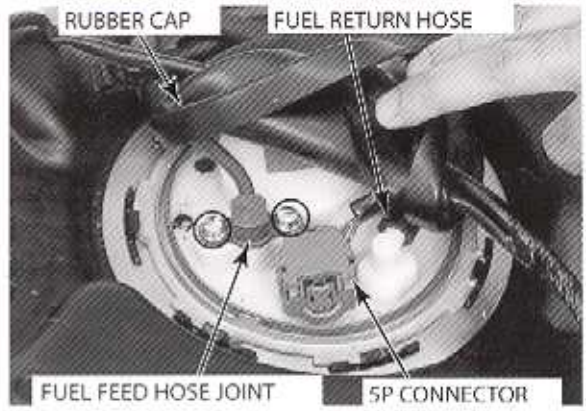
Remove the bolt and lower the battery holder. With the ignition switch turned to "OFF," disconnect the negative (–) cable first, then disconnect the positive (+) cable.

Apply RED duct tape to both the negative and positive cable leads.

Remove the battery from the battery case.



15. REMOVE THE FUEL TANK

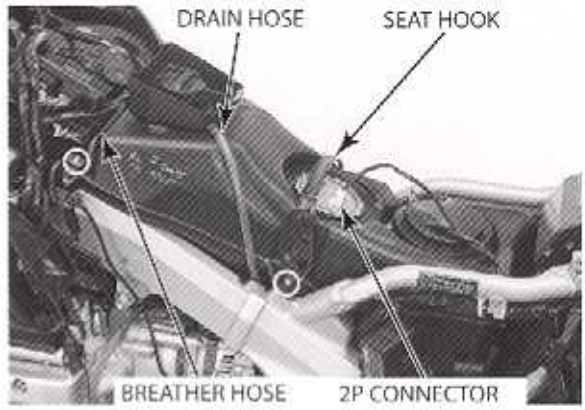


Pull off the rubber cap.
Disconnect the 5P connector and fuel return hose from the fuel pump.
Plug the fuel return hose with an 8 mm bolt and cover it with **RED** duct tape to prevent fuel line contamination.
Remove the two fuel feed hose joint bolts.
Cover the fuel feed hose joint with a clean shop towel.
Cover the fuel feed hose end with **RED** duct tape to prevent fuel line contamination.
Hold the flats of the hose joint and pull it up straight, being careful not to damage the fuel pump joint.
Catch the fuel using an approved gasoline container.

Disconnect the following:
- fuel level sensor 2P connector
- fuel tank tray drain hose
- fuel tank breather hose

Remove the fuel tank.

Tilt the fuel tank to the right and remove it from the left side of the motorcycle.

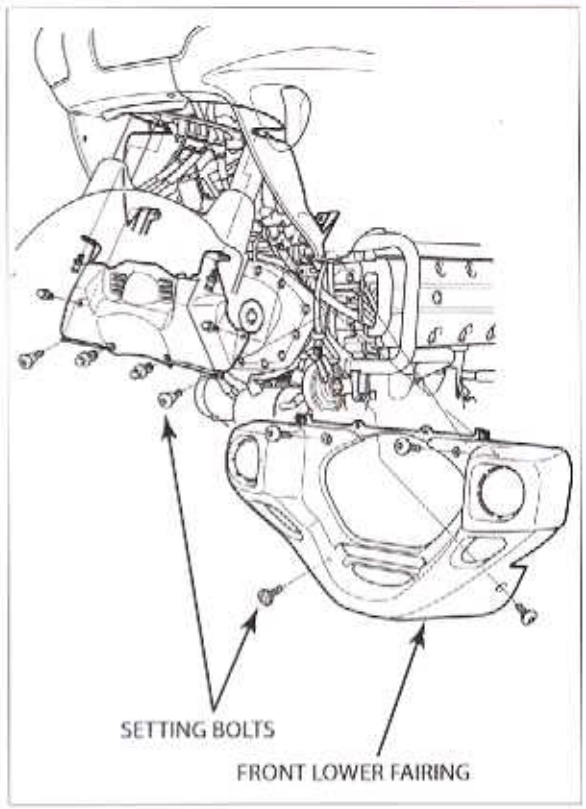


16. REMOVE THE MAIN WIRING HARNESS GROUND.

Apply **RED** duct tape to the main wiring harness ground cable end.

17. REMOVE THE FRONT LOWER FAIRING

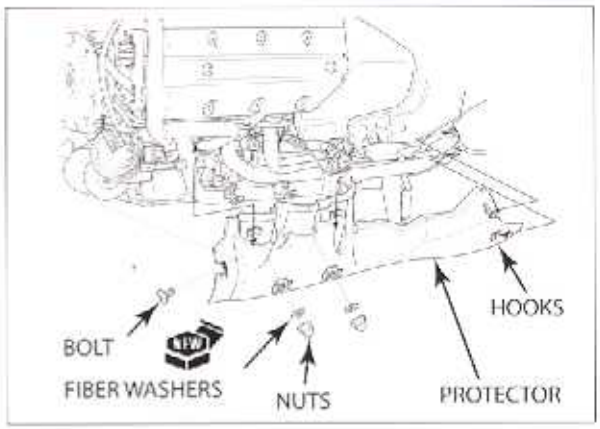
Remove the four setting bolts and front lower fairing.



18. REMOVE THE FRONT EXHAUST PIPE PROTECTOR

Perform the following procedure for both the left and right exhaust pipe protectors.
Remove the bolt, two nuts, and four fiber washers. Do not lose the hook rubbers on the tabs.

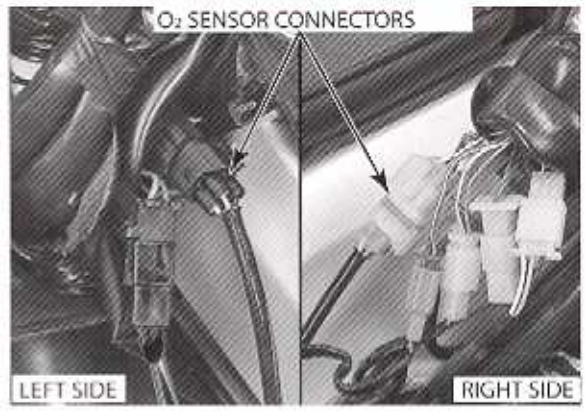
Remove the lower portion of the protector from the studs, release the four hooks from the tabs and remove the protector.



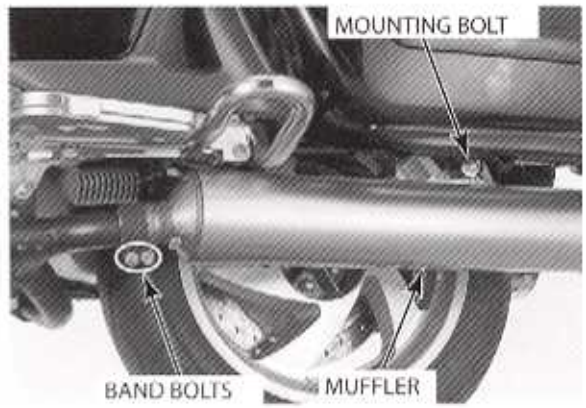
19. COVER THE ALTERNATOR WITH RED DUCT TAPE

20. REMOVE THE MUFFLER/EXHAUST PIPE

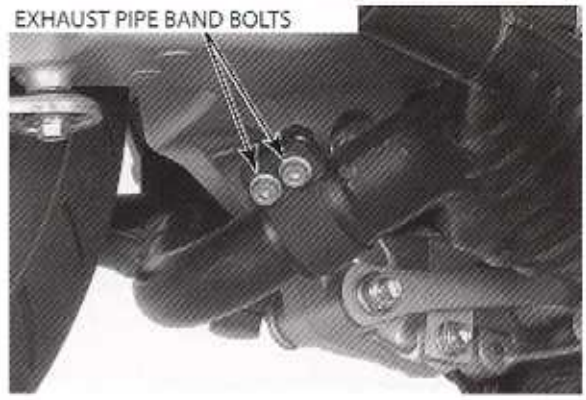
Loosen the rear brake master cylinder reservoir bolt.
The following instructions are for both the left and right sides.
Remove the left and right O_2 sensors from the head pipes and disconnect them from the wiring harness.
Do not lose the hook rubbers on the tabs.



Remove the bolt and rear exhaust pipe protector while releasing the two hooks from the tabs. Do not lose the hook rubbers on the tabs.
Loosen the muffler band bolts.
Remove the mounting bolt, washer, and muffler.
Put on gloves, then remove the muffler gasket.
Remove the other side rear exhaust pipe protector and muffler.

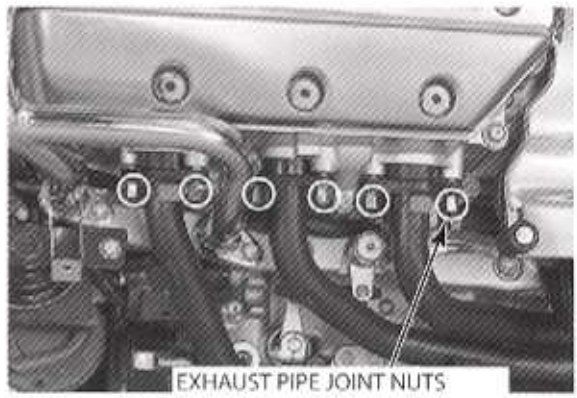


Loosen the exhaust cross-over pipe band bolts.



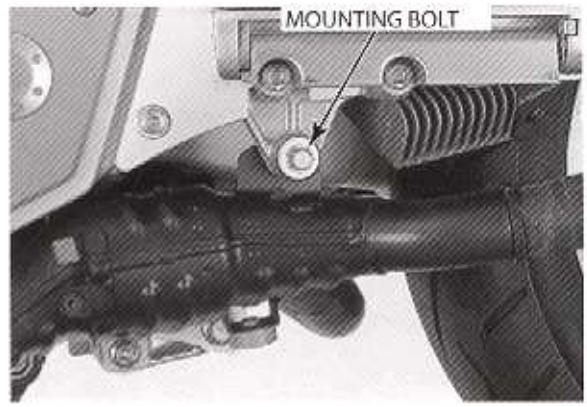
Remove all exhaust pipe joint nuts.

Do not damage the O_2 sensors while removing the exhaust pipes.



To protect your hands from exhaust gaskets, put on gloves. Using two people, remove both exhaust pipe mounting bolts, washers, and exhaust pipes. Remove the exhaust pipe joint gaskets. Separate the exhaust pipes and remove the gasket.

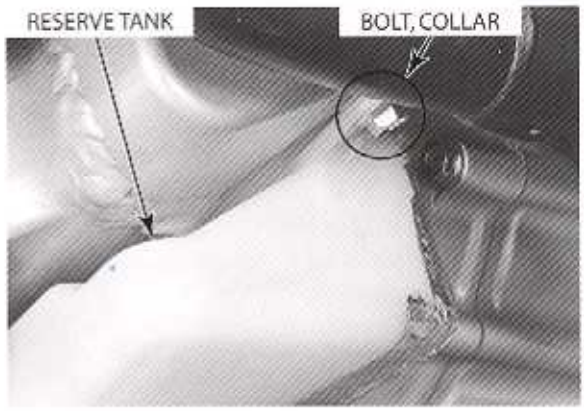
Apply RED duct tape to the exhaust ports. Make sure you cover them completely.



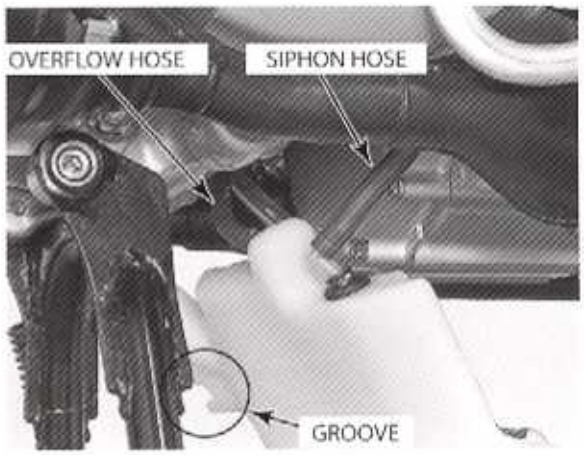
21. REMOVE THE ANTENNA WHIP(S)

22. REMOVE THE COOLANT RESERVE TANK

Remove the reserve tank mounting bolt and collar.
Remove the reserve tank from the frame.

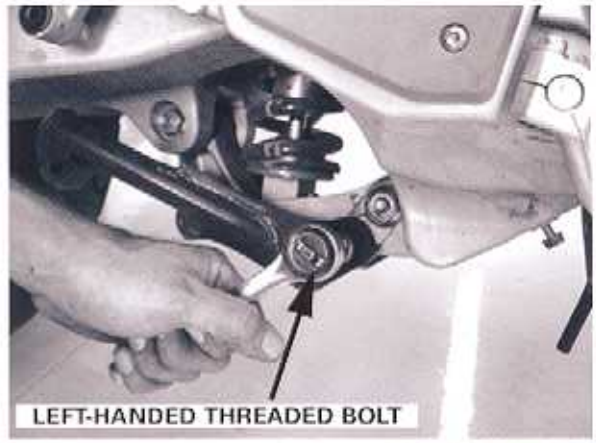


Disconnect the siphon hose and overflow hose and remove the reserve tank.

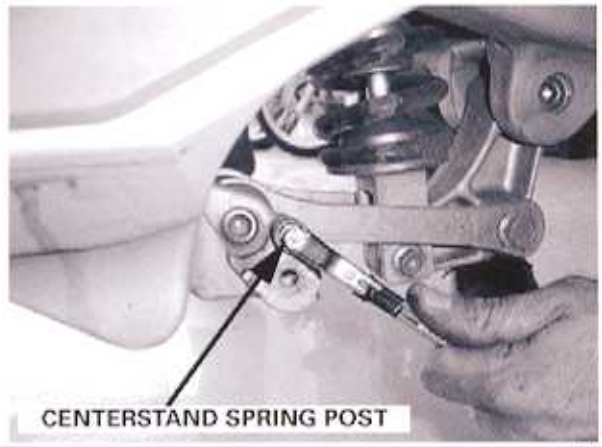


23. REMOVE THE CENTERSTAND

Place the motorcycle on its sidestand. Using a 14 mm socket, remove the **left-handed threaded bolt** securing the right side of the centerstand. Remove the hex bolt from the left side and remove the center stand.



Remove the centerstand spring post.



IMPORTANT: Make sure you leave the key in the ignition. The welder will use the key to lock the forks during the welding procedure.

- If you are going to weld the frame at the dealership, proceed to the GL1800 FRAME WELDING MANUAL section.

- If you are subletting the GL1800 frame welding to an off-site welder, hand the **GL1800 Frame Welding Manual** and the **Welding Templates** to the welder at the time of unit delivery.

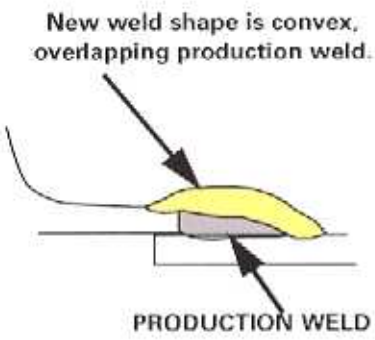
IMPORTANT: Before you begin the **RE-ASSEMBLY** procedures in this section, you **MUST** inspect the new TIG welds.

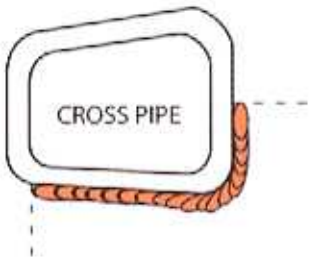
If you find any **No Good** welds during your inspection, call your DSM or TechLine at (800) 421-1900 for further instructions.

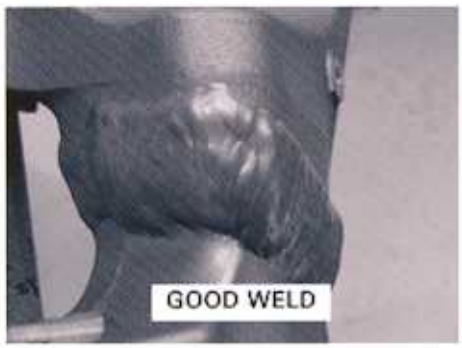
Thoroughly read and study the following **TIG WELD IDENTIFICATION** section. Knowing how to accurately identify the quality of a TIG weld is very important and will assist in the correct and accurate fulfillment of this Safety Recall.

"GOOD" AND "NO GOOD" TIG WELD IDENTIFICATION

This section shows you how to accurately identify **GOOD** TIG welds.

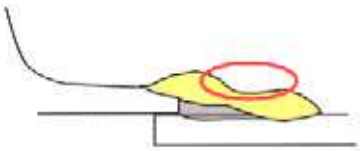


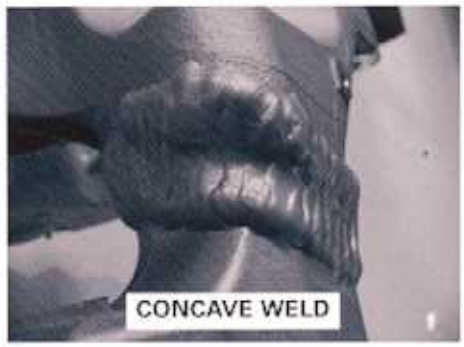




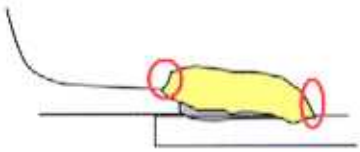
This section shows you how to accurately identify the following types of **NO GOOD** TIG welds: **Concave Weld**, **Cold Weld**.

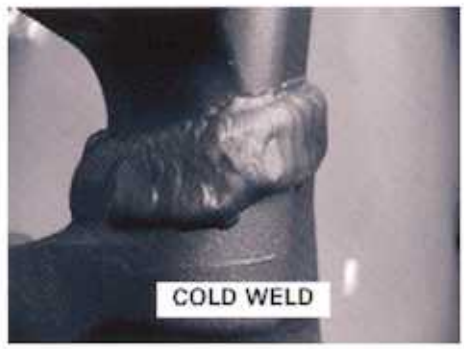
CONCAVE WELD





COLD WELD

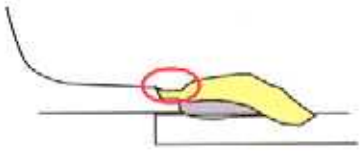




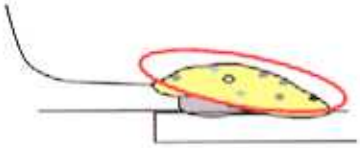
Proceed to page 4 for more NO GOOD TIG weld descriptions.

This section shows you how to accurately identify the following types of **NO GOOD** TIG welds: **Undercut Weld**, **Dirty Weld**.

UNDERCUT WELD

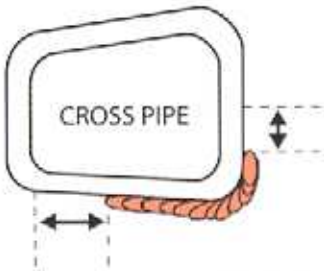


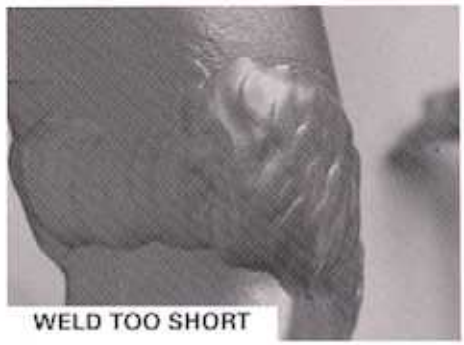
DIRTY WELD



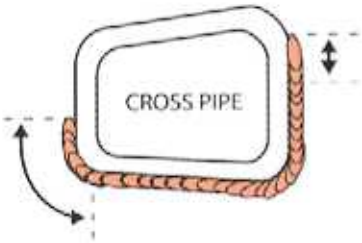
This section shows you how to accurately identify the following types of **NO GOOD** TIG welds: **Weld Too Short**, **Weld Too Long**.

WELD TOO SHORT





WELD TOO LONG



DUST SEAL REMOVAL/INSTALLATION

1. **USING COMPRESSED AIR, BLOW OUT ANY METAL SHAVINGS LEFT OVER FROM THE WELDING PROCEDURE**

2. **USING AT LEAST TWO PEOPLE, GENTLY LAY THE VEHICLE DOWN ON ITS RIGHT SIDE ON APPROPRIATE PADDING**
   Lock the handlebars to the left before you lay the vehicle down. Make sure you place thick, non-abrasive padding (such as furniture blankets) on the ground before you lay the vehicle on its side. No painted parts should be contacting the ground or the padding.

3. **INSPECT THE WELDS, REFERRING TO THE WELD INSPECTION SECTION**
   If you find any No Good welds, call your DSM or TechLine at (800) 421-1900 for further instructions.

4. **REMOVE THE SHOCK LINK-TO-FRAME NUT**

5. REMOVE THE DUST SEALS (BOTH SIDES) AND INSTALL NEW ONES

Make sure you clean any residual grease from the needle bearings. Lubricate the needle bearings with new **ProHonda Moly 60 Paste** (P/N: 08734-0001, H/C: 2963866).

6. INSTALL THE SHOCK LINK

Tighten the shock link-to-frame nut to the specified torque.

TORQUE: 64 N·m (6.5 kgf·m, 47 lbf·ft)

WELD PAINTING

1. USING APPROPRIATE MATERIALS, MASK THE AREA SURROUNDING THE WELDS

NOTE: Make sure the area to be painted is free of grease, oil, or dirt.

2. PAINT THE WELDS

Use either of the following commercially available paint products.

Plasti-kote
1542 Burnished Silver M

Dupli-color
DAL 1679 Silver Metallic

RE-ASSEMBLY

IMPORTANT: Do not install the centerstand until 24 hours after the welding procedure was completed. This will give the welds time to cure.

1. USING AT LEAST TWO PEOPLE, RAISE THE VEHICLE AND PLACE IT ON ITS SIDESTAND.

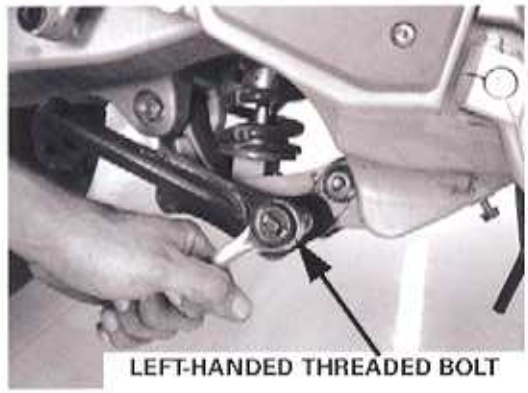
2. INSTALL THE CENTERSTAND

Place the motorcycle on its sidestand.
Install the centerstand spring post and tighten.

Install the centerstand and secure it using the hex bolt on the left side and the **left-handed threaded bolt** on the right side.

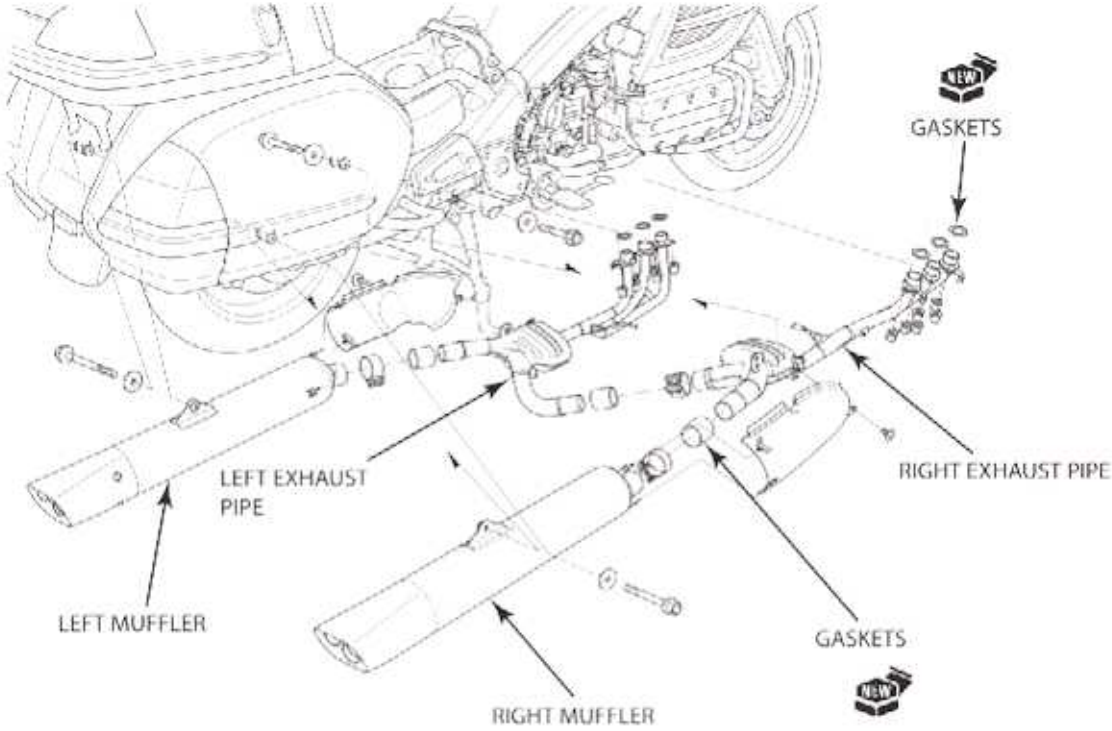
Use **HondaLock 2** (P/N: 08713-0002, H/C: 2963833) on the left-handed threaded bolt.
Tighten the bolts to the specified torque.
TORQUE: 39 N·m (4.0 kgf·m, 29 lbf·ft)


CENTERSTAND SPRING POST

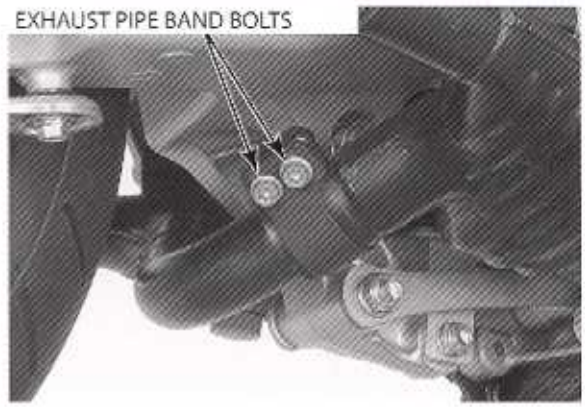

LEFT-HANDED THREADED BOLT

3. INSTALL THE EXHAUST

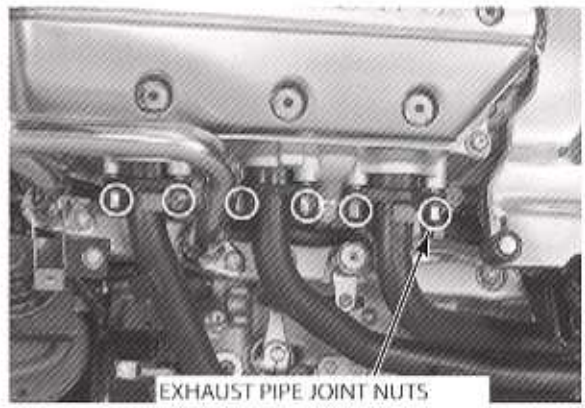
Wearing gloves, install both exhaust pipes with new gaskets provided in the parts kit. Loosely tighten all nuts and bolts.



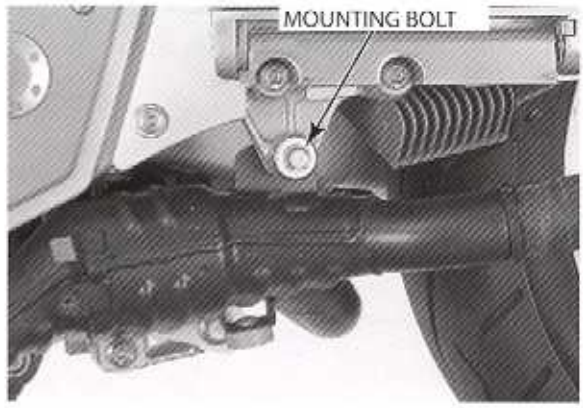
Tighten the exhaust pipe band bolts.
TORQUE: 26 N·m (2.7 kgf·m, 20 lbf·ft)



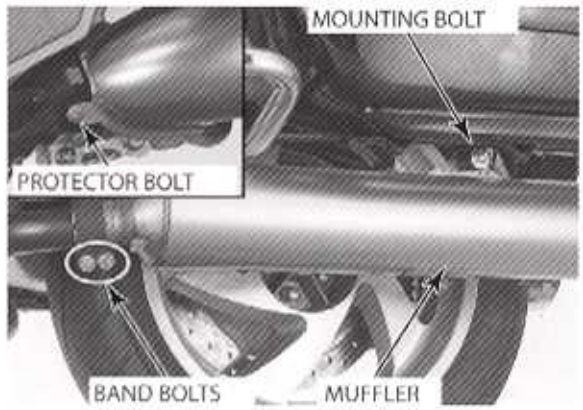
Tighten the exhaust pipe joint nuts.
TORQUE: 12 N·m (1.2 kgf·m, 9 lbf·ft)



Tighten the exhaust pipe mounting bolts.
TORQUE: 26 N·m (2.7 kgf·m, 20 lbf·ft)



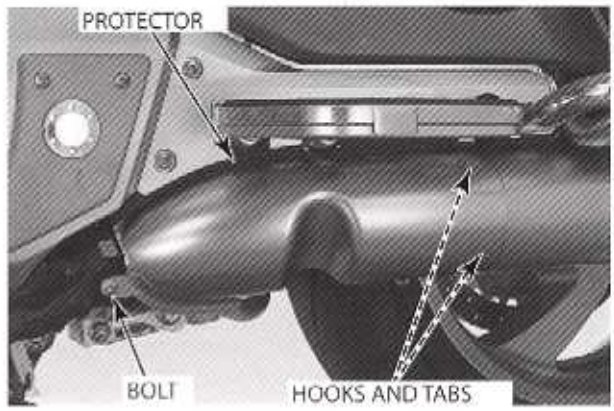
Tighten the muffler band bolts.
TORQUE: 26 N·m (2.7 kgf·m, 20 lbf·ft)



4. INSTALL THE REAR EXHAUST PIPE PROTECTORS

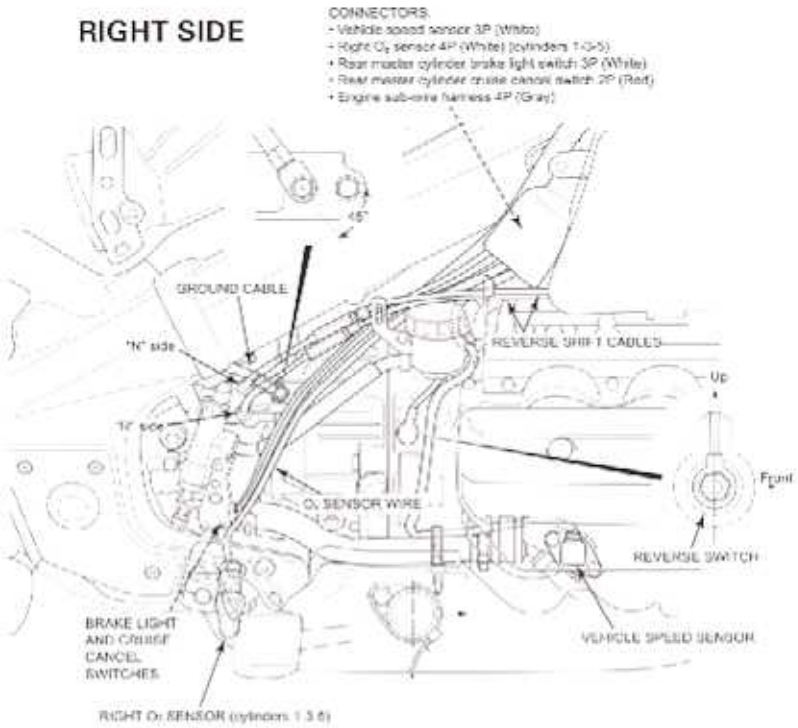
Make sure the hook rubbers are on the tabs, then install the rear exhaust protectors. Tighten the bolt to the specified torque.

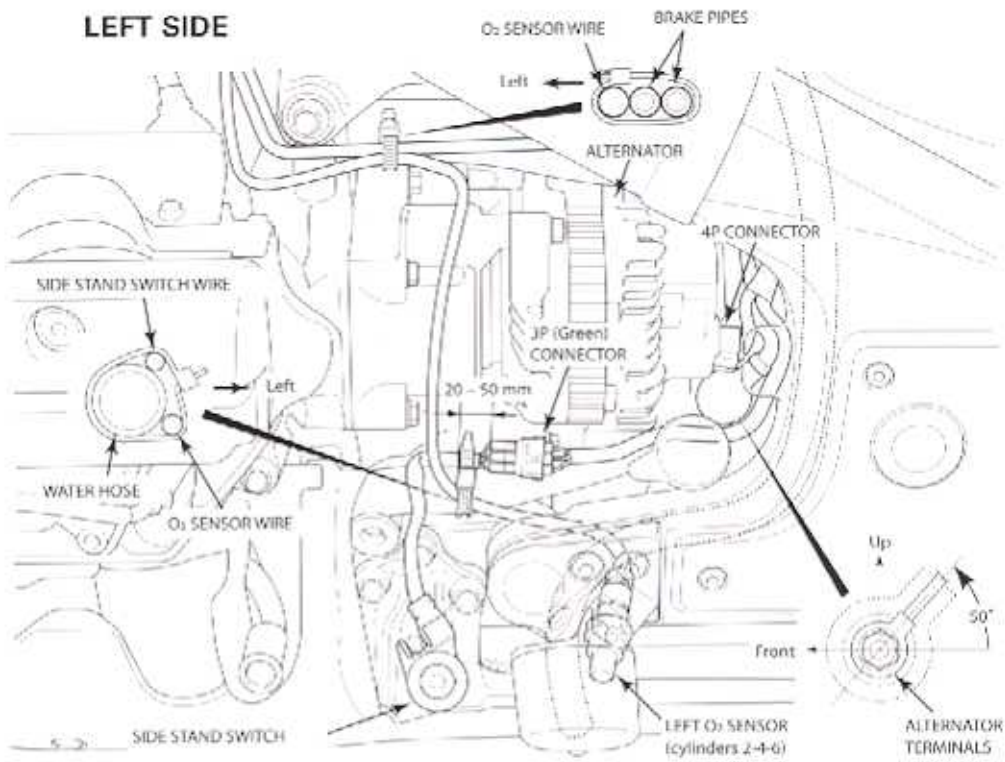
TORQUE: 14 N·m (1.4 kgf·m, 10 lbf·ft)



5. ROUTE THE O_2 SENSOR WIRES

Install and route the sensor wires and secure with the wire bands in the areas shown.

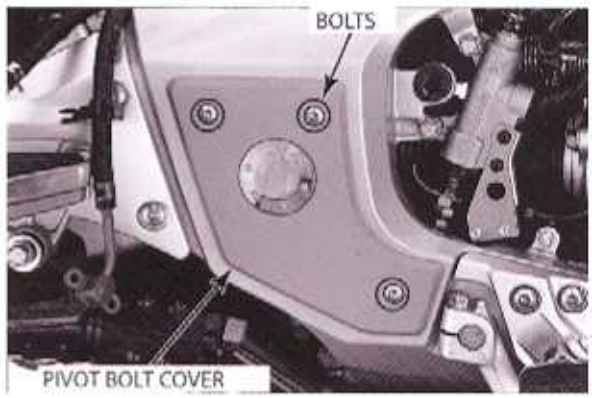



LEFT SIDE
O2 SENSOR WIRE
BRAKE PIPES
Left
ALTERNATOR
4P CONNECTOR
SIDE STAND SWITCH WIRE
3P (Green) CONNECTOR
Left
20 – 50 mm
WATER HOSE
O2 SENSOR WIRE
Up
50°
Front
SIDE STAND SWITCH
LEFT O2 SENSOR (cylinders 2-4-6)
ALTERNATOR TERMINALS

6. INSTALL THE RIDER FOOTPEGS

7. INSTALL THE SWINGARM PIVOT COVERS

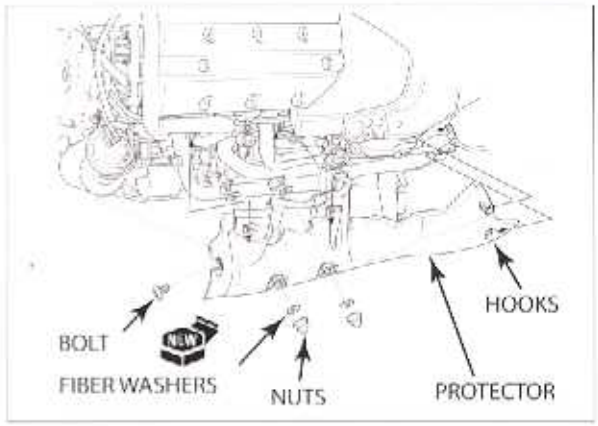
Install the mounting bolts and tighten securely.



8. INSTALL THE FRONT EXHAUST PIPE PROTECTOR

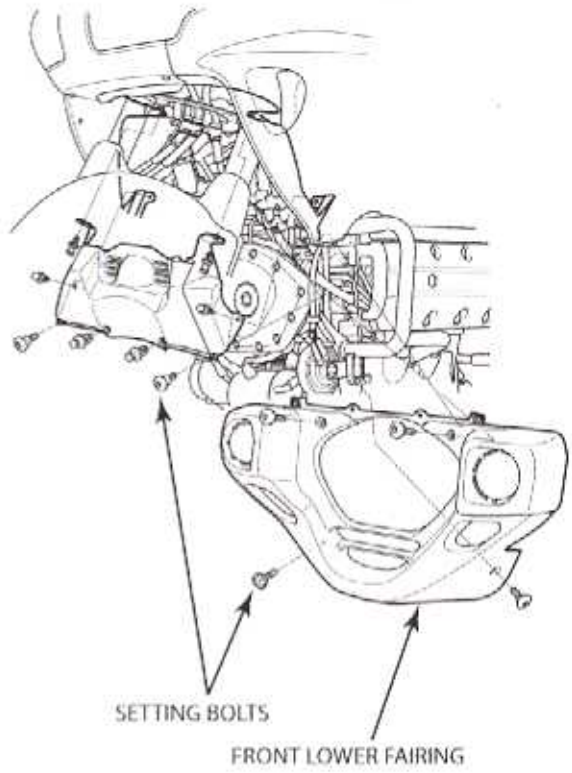
Make sure the hook rubbers are on the tabs. Insert the four hooks into the tabs, then install the lower portion of the protector on the studs.

Using new fiber washers provided in the parts kit, install the bolt, two nuts, and four fiber washers.



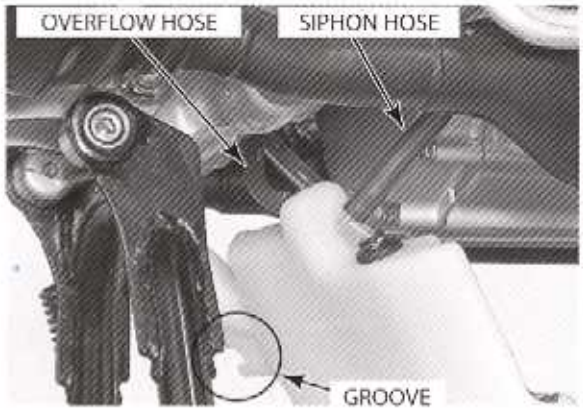
9. INSTALL THE FRONT LOWER FAIRING

Install the four setting bolts and front lower fairing.

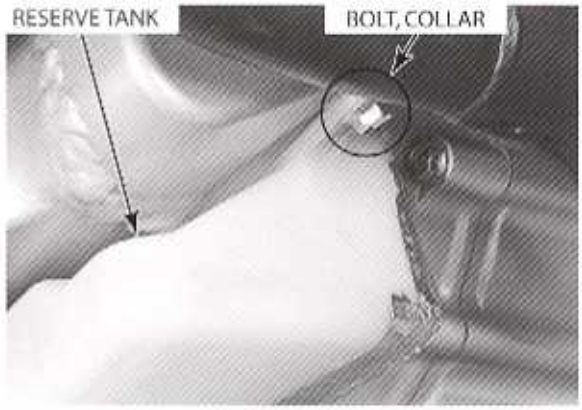


10. INSTALL THE COOLANT RESERVE TANK

Connect the siphon hose and overflow hose. Install the reserve tank by hooking the groove into the frame properly.

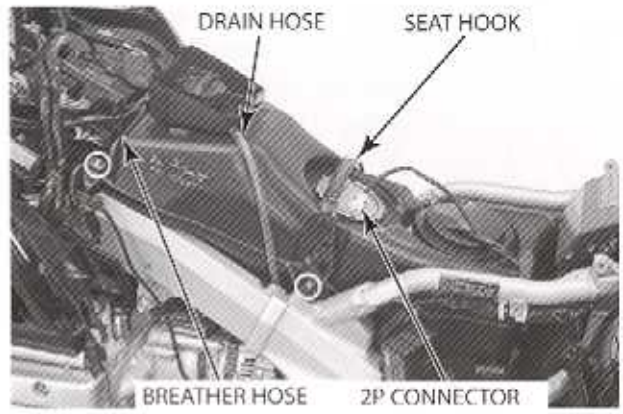


Install the collar and mounting bolt. Tighten the bolt securely.

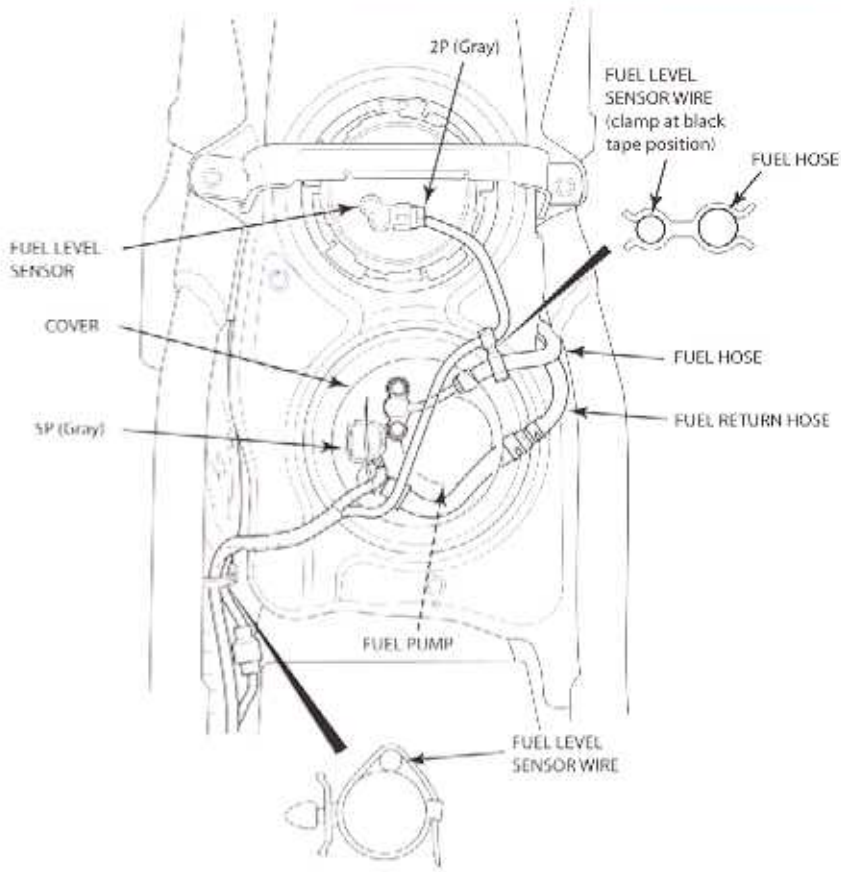


11. INSTALL THE FUEL TANK

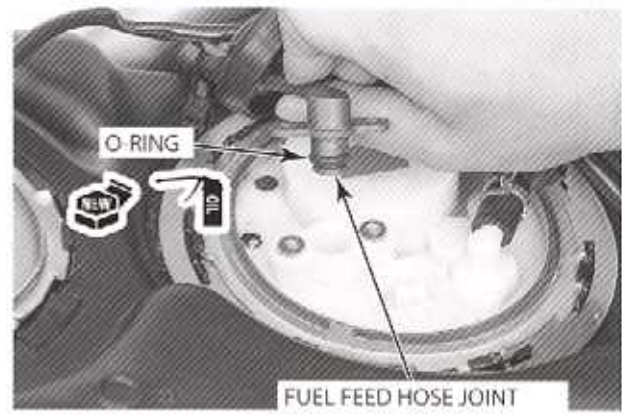
Tilt the fuel tank to the right and install it from the left side of the motorcycle.
Install the two washers, four bolts, and seat hook.
Connect the following:
- fuel level sensor 2P connector
- fuel tank tray drain hose
- fuel tank breather hose



Route the hoses and wires according to the illustration.



Remove the 8 mm bolt from the fuel return hose and connect the hose to the fuel pump. Secure the hose with the spring clip.
Remove the shop towel covering the fuel feed hose joint.
Remove the duct tape from the fuel feed hose.
Coat a new O-ring with engine oil and install it into the fuel feed hose joint groove. Install the hose joint into the fuel pump by pushing it straight down, being careful not to damage the fuel pump joint. Install and tighten the hose joint bolts.



TORQUE: 10 N·m (1.0 kgf·m, 7 lbf·ft)

Connect the 5P connector to the fuel pump.

12. INSTALL THE BATTERY

Install the wiring harness main ground.

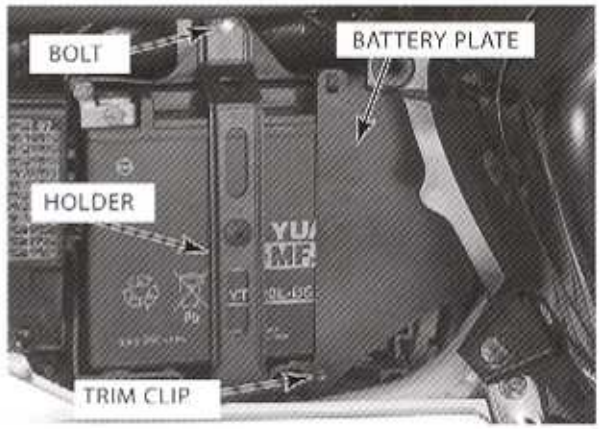
Install the battery in the case.
Install and secure the battery holder with the bolt.
Install the battery plate and trim clip.

With the ignition switched to "OFF," connect the positive (+) cable first, then connect the negative (-) cable.

After connecting the battery cables, coat the terminals with grease.

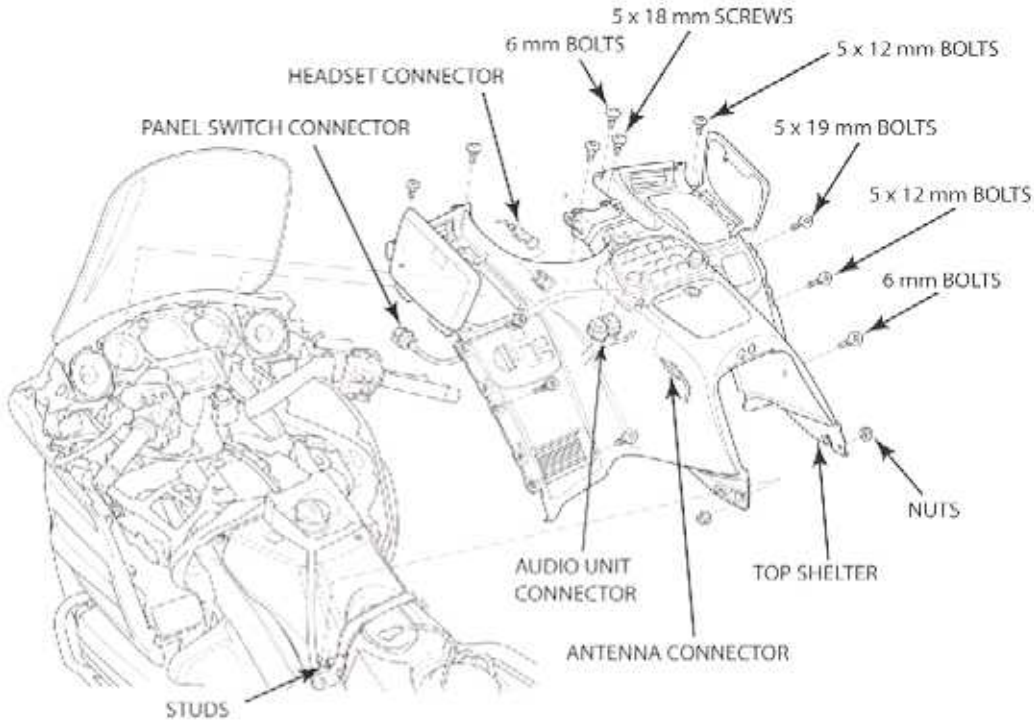
Turn the ignition and engine stop switch to "ON" and check that there is no fuel leakage from the fuel return or fuel feed hoses.

Install the rubber cap over the fuel pump.



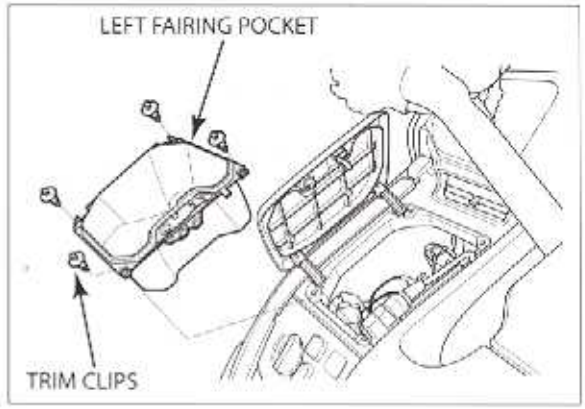
13. INSTALL THE TOP SHELTER

Connect the left panel switch assembly, antenna and audio unit connectors.
Install the rear ends of the top shelter on the studs and secure with the two nuts.
Install the two 5 x 18 mm, four 5 x 2 mm, two 5 x 19 mm and four 6 mm setting bolts. Tighten the bolts securely.
Place the headset connector in the holder.

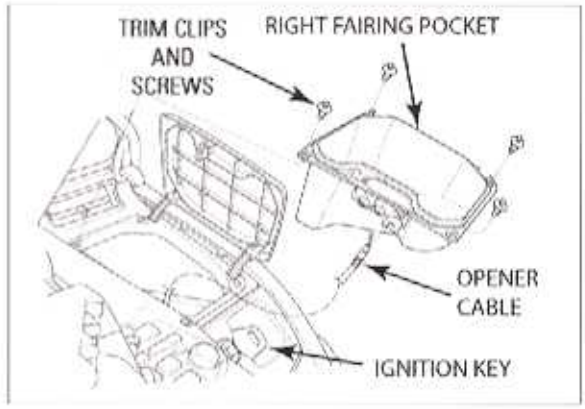


14. INSTALL THE FAIRING POCKETS

Push the opener button and open the left fairing pocket lid.
Install the fairing pocket and secure with the four trim clips.

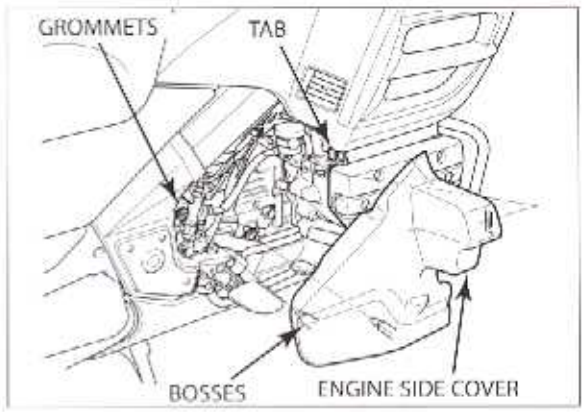


Insert the ignition key into the lock cylinder and open the right fairing pocket lid by turning the key clockwise.
Connect the opener cable and install the fairing pocket. Secure the fairing pocket using two screws and two trim clips.



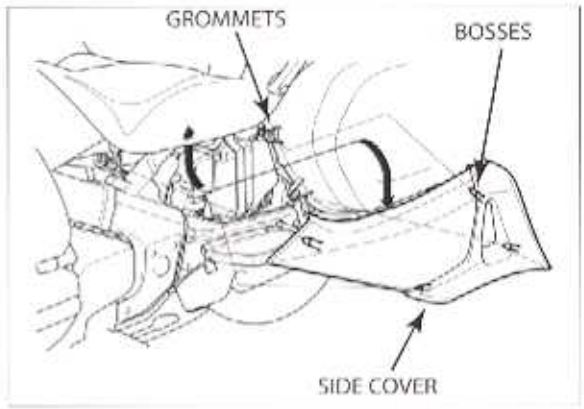
15. INSTALL THE ENGINE SIDE COVERS

Install the engine side cover from the lower side while aligning the slot with the tab of the injector cover. Insert the bosses into the grommets. Repeat for the other side.



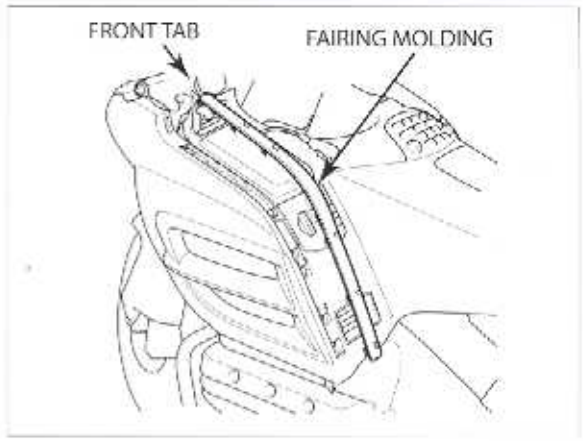
16. INSTALL THE SIDE COVERS

Being careful not to dislodge the grommets, install the side cover by inserting the four bosses into the grommets. Repeat for the other side.



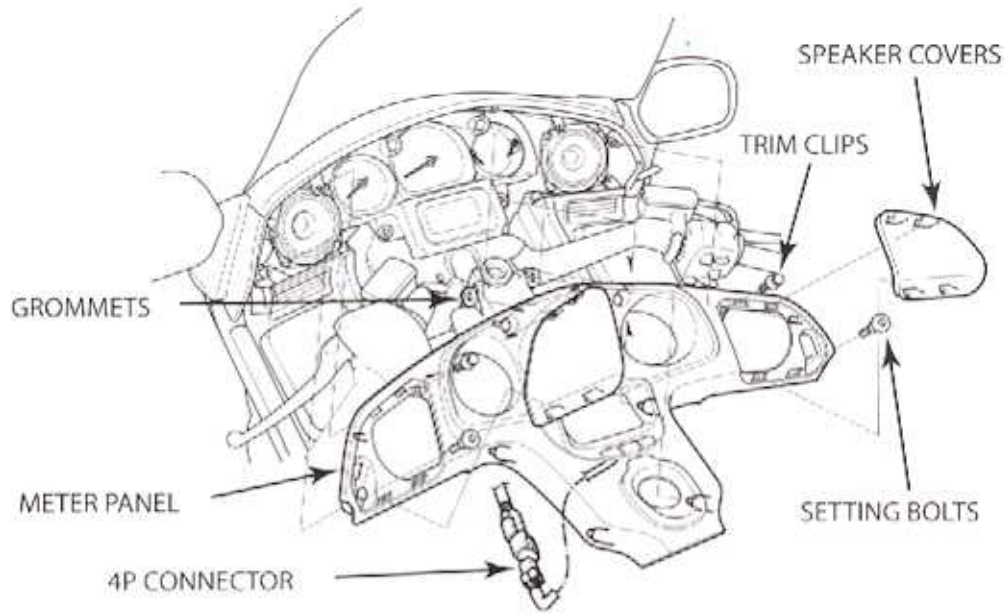
17. INSTALL THE FAIRING MOLDING

Being careful not to damage the tabs, install the fairing molding by gently pressing the bottom tab first, then the other tabs. Repeat for the right side.



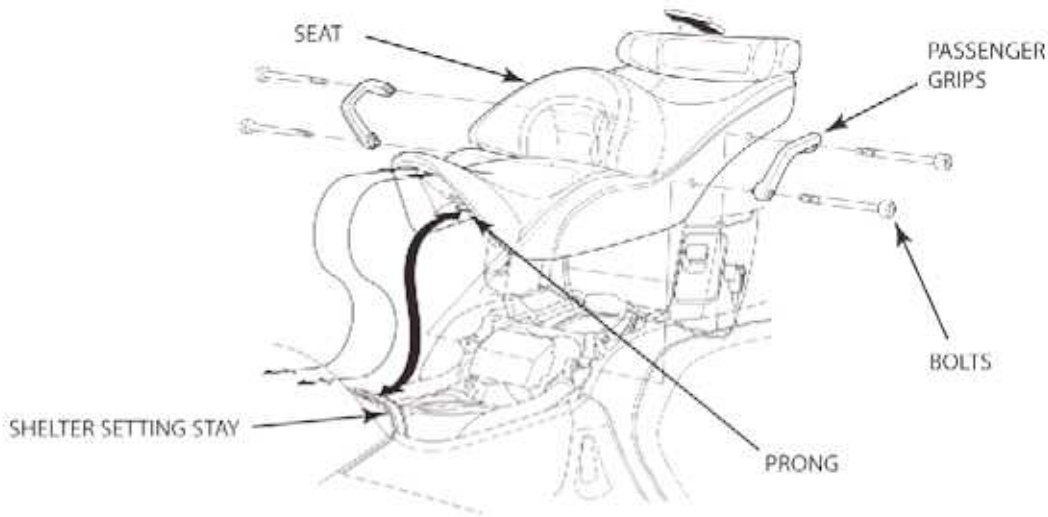
18. INSTALL THE METER PANEL

Being careful not to dislodge the grommets, install the meter panel by aligning the four bosses with the holes and two tabs with the slots. Install the speaker covers by aligning the four tabs. Install the two trim clips and setting bolts.



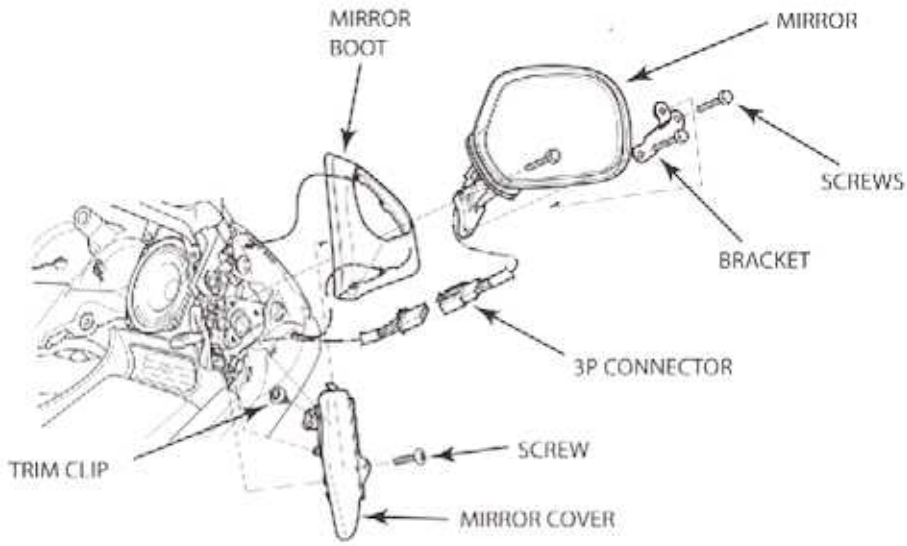
19. INSTALL THE SEAT

Install the seat while inserting the tabs under the top shelter and the prong under the shelter setting stay. Push down the rear of the seat. Install the passenger grips and tighten the four bolts securely.



20. INSTALL THE REARVIEW MIRRORS

Connect the turn signal light 3P connector.
Install the three screws, bracket and mirror.
Install the trim clip, screw, and mirror cover.
Install the mirror boot from the front fairing.
Repeat for the left side.



21. INSTALL THE HANDLEBAR WEIGHTS

Install the handlebar weight and secure with the mounting screw. Use **HondaLock 1** (P/N: 08713-0001, H/C: 2963825) on the mounting screw. Repeat for the other side.

22. INSTALL THE ANTENNA WHIP(S)

23. INSTALL ACCESSORIES

If removed, reinstall any Genuine Honda or after-market accessories to their original configuration.

24. CHECK PROPER OPERATION

Check proper operation of the throttle, brakes, clutch, radio, accessories, and all functions of the LH and RH handlebar switches.

25. COMPLETE THE WARRANTY INFORMATION

Refer to Service Bulletin GL1800/A #14 to submit warranty information.

S0510
PRINTED IN USA

2002-2003 GL1800/A Frame Weld Safety Recall

Frame Welding Manual

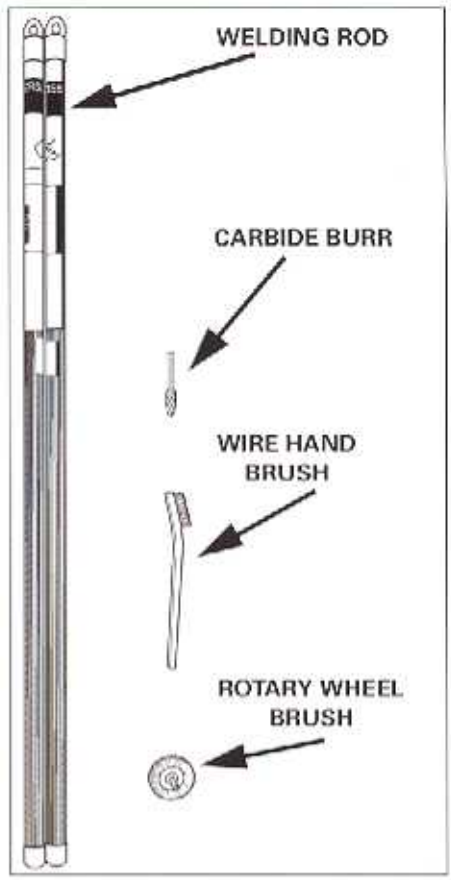
GOLDWING

HONDA

GL1800 Frame Welding Procedures

(American Honda Motor Co., Inc. recommended procedures)

IMPORTANT: Read this entire booklet before welding.



Tools and Supplies

The following tools and supplies can be purchased from a local supplier. We are including Mc Master-Carr Book 109 part numbers for your convenience.

- Furniture blankets (or other thick, non-abrasive padding)
- Appropriate welding safety equipment
- TIG Welder capable of 200 Amps
- Pneumatic die grinder
- Aluminum TIG welding rod #5356
  3/32" Welding Wire } We recommend Lincoln #5356.
  1/8" Welding Wire }
- New, non-contaminated 2" Stainless rotary wheel brush
  Mc Master-Carr #7077A37
- Ø1/2"x1.0" Carbide Burr (Tree-style with radius end)
  Mc Master-Carr #4295A32
- New, non-contaminated stainless steel wire hand brush
  Mc Master-Carr #4800A52
- Acetone

Templates Needed (from the Honda dealer)

- Grinding Template
- Ground Clamp Bracket
- Grind Depth/Weld Height Gauge

Job Time Allowed
3.0 hours

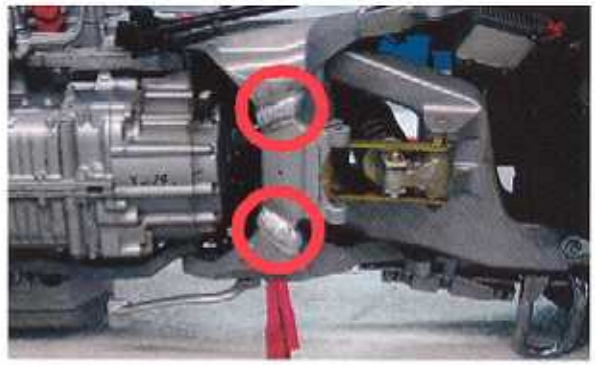
Job Overview

This job consists of the following steps:

A. **Work Area Preparation**: Carefully laying the motorcycle on its **RIGHT** side.
B. **Grind Layout**: Using a template to mark correct grinding locations on frame.
C. **Grinding**: Grinding existing production weld per grinding location marks.
D. **TIG Welding**: Adding weld material to existing production weld.

When right side is finished, repeating steps A-D for the other side of the motorcycle.

IMPORTANT: Only work on one side of the motorcycle at a time. DO NOT attempt to work on both sides of the motorcycle simultaneously.



You will be welding at the locations shown above.

Step A: Work Area Preparation

1. Place thick, non-abrasive padding (such as furniture blankets) on the ground to protect the vehicle when you lay it on its side.

2. Lock the handlebars to the **left**, using the key in the ignition.

3. **Using two people**, gently lay the vehicle down on its **RIGHT** side **on the padding**, keeping the handlebars turned all the way to the left until the handlebar end touches the padding.

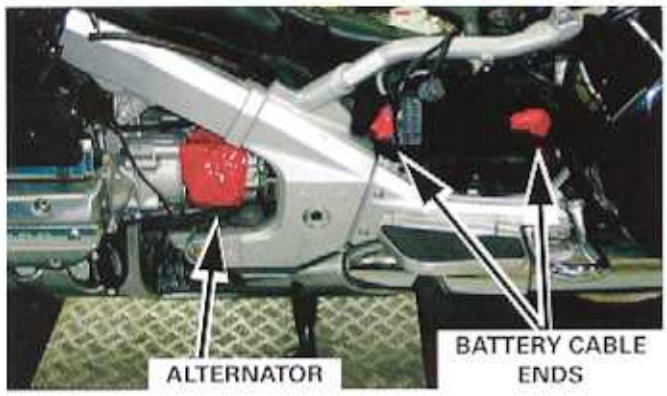
   The vehicle should be laying on the padding, with its engine guard, saddlebag guard, and handlebar end resting on the padding – no painted parts should be contacting the padding.

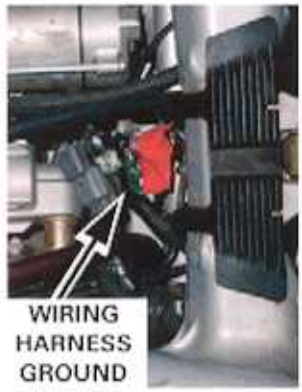
Before Welding

Before welding, ensure the dealer has done the following:

- All fuel lines are sealed and duct taped.
- Battery is removed and cable ends are duct taped.
- Main wiring harness ground is removed and duct taped.
- Alternator is covered.

This is to ensure your safety and the quality of the weld.

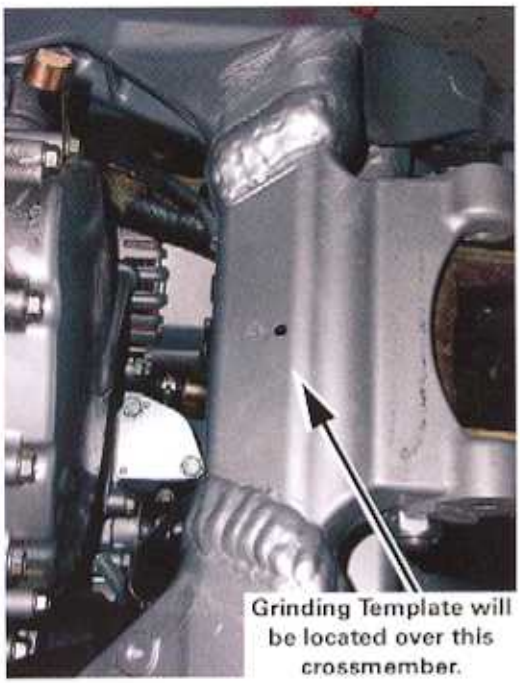




4. Proceed to **Step B: Grind Layout**.

Step B: Grind Layout

The illustrations below show the proper Grinding Template placement.



Grinding Template will be located over this crossmember.

Place Grinding Template on crossmember as shown.

1. With the Grinding Template in the correct position, mark along the edges of the template as shown. Make sure you mark the entire length of the template. **DO NOT mark past the edges of the template.**

Length of grinding mark: 3.5" (Grind depth should be uniform.)


Mark along both edges of the template.


Mark should look similar to above.


Grind Length = 3.5"
DO NOT exceed this length.

2. Proceed to **Step C: Grinding**.

Step C: Grinding

1. Using a Ø1/2"-1.0" Carbide Burr (Tree-style with radius end) grinding wheel, grind the existing weld along the layout marks to a uniform depth until the supplied Grind Depth Gauge fits as pictured.

IMPORTANT: If using lubricant to prevent clogging, do not spray directly on the weld – spray on the bit.

Make sure you grind on both sides of the cross-member and to the full length of the grind mark.

Finished grind should look similar to below.

Measure the grind depth along the length of the grind with the Grind Depth Gauge as pictured.

2. Using a new, non-contaminated 2" stainless steel stiff wire wheel and a pneumatic die grinder, clean the area around the grind, removing **ALL** of the powder coat from the welding zone.

3. Use acetone or an equivalent to clean any grease, oil, or remaining dirt from the welding zone.

4. Proceed to **Step D: TIG Welding**.

Step D: TIG Welding

Welding Specifications:

- TIG welder capable of 200 Amps
- 180 Amp ±5, 200 V AC
- 100% Argon gas
- AC polarity
- Wave balance = 5 (or middle setting on your TIG welder)
- High frequency to continuous mode
- Use Aluminum TIG welding rod #5356 (3/32"or 1/8") – We recommend Lincoln #5356.

IMPORTANT: Use ONLY #5356 Aluminum TIG welding rod for this repair. DO NOT make substitutions.

NOTE: Make sure all of your welding equipment is in good operating condition, including your ground clamps, tungsten, ceramic cup, etc.

Grounding the Frame

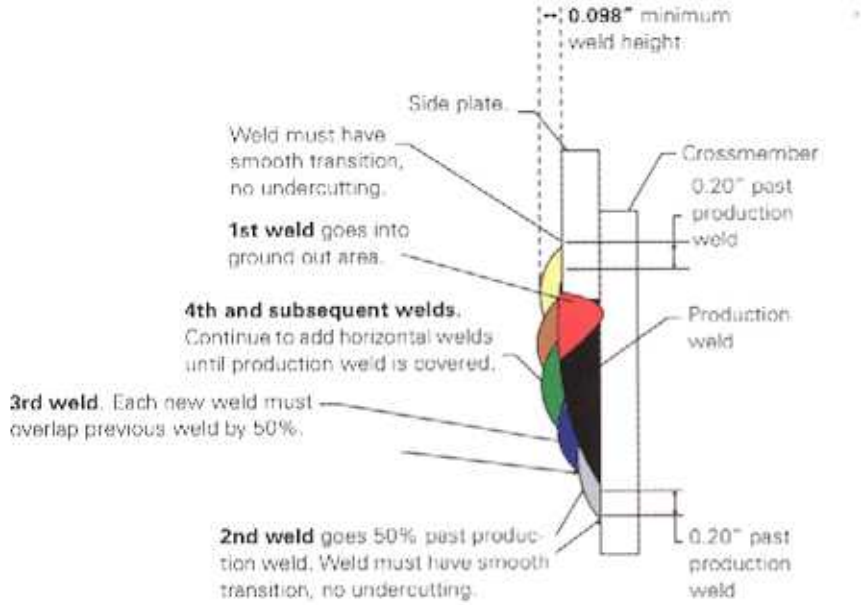
1. Ground your welding equipment to the vehicle using the supplied grounding bracket as shown.

IMPORTANT: DO NOT start your weld. Proceed to the next page for a Weld Overview.

Weld Overview

The illustrations below show the correct weld techniques. Please follow these directions carefully.

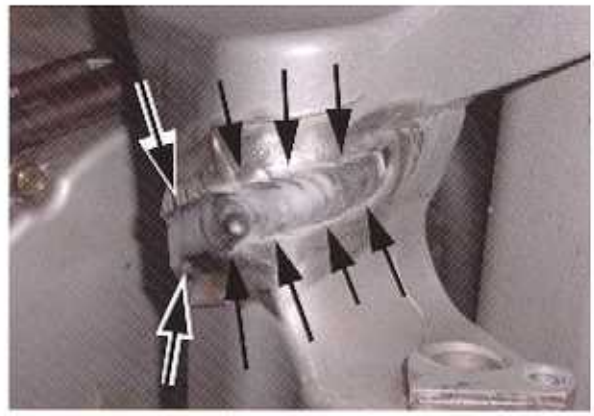
NOTE: You will be **increasing** the size of the welds.
We estimate you will use 9 1/2' of 3/32" rod or 6' of 1/8" rod.



Welding beads with no wash applied.

TIG Welding Procedures

1. Your first weld will be a root weld in the ground out zone as shown.

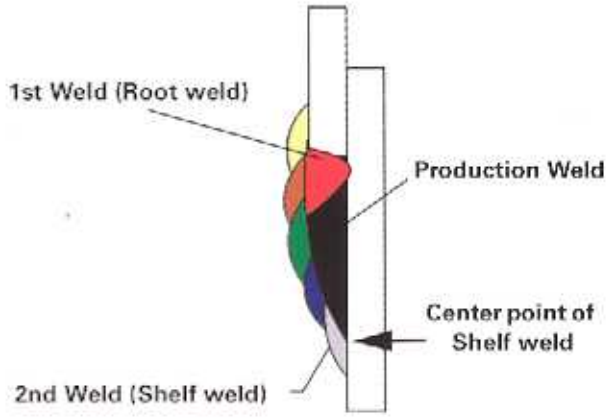


After finishing each weld, clean the welding zone with a stiff wire hand brush.

NOTE: See next page for 2nd weld location.

2. **The 2nd weld acts as a shelf for the remaining horizontal welds.** The center of this shelf weld must be located on the edge of the production weld (50% on the production weld, 50% on the casting).

   Refer to the illustration at right for the correct aiming point and placement of the weld.



3. Now weld as many beads as necessary to cover the entire welding zone as shown.

   NOTE: Make sure all of the original production weld is entirely covered with new weld.

   Remember to clean the welding zone with a stiff wire hand brush between each bead.

4. Using the Weld Bead Height Gauge, make sure your weld is as shown. If the weld bead does not touch the Weld Gauge, you must add additional rod during the next step (wash bead) to attain the correct weld bead minimum height.

5. **Using additional welding rod**, run one continuous wash bead over all the horizontal beads, making sure to cover the start/stop point of all the beads by at least 2/3 bead overlap.

   Thoroughly clean the entire welding zone with a stiff wire hand brush.

6. **Using at least two people**, raise the motorcycle and place it on its side stand. Reposition the furniture blankets or padding. **Using at least two people**, carefully lay the motorcycle on its **LEFT** side.

7. **Now follow Steps A-D for the other side of the motorcycle.**

8. **Remove the ground bracket from the vehicle.**

9. After you have completed the TIG Welding procedure for the other side of the motorcycle, proceed to **Step E: Vehicle Preparation/Retum.**

WASH BEAD

Step E: Vehicle Preparation/Return

- If you are a welder, contact the dealer to have the motorcycle returned.
- Please keep the entire welding kit you received from the dealer for future jobs.
- If you are a dealer, refer to the RE-ASSEMBLY Section.

S0511
PRINTED IN USA

October 13, 2003

HONDA
American Honda Motor Co., Inc.
1919 Torrance Boulevard
Torrance, CA 90501-2746

Dear Honda Gold Wing Owner,

You may have heard from a dealer, fellow Gold Wing Rider or another source that American Honda along with the National Highway Traffic Safety Administration (NHTSA) has been investigating reports of frame cracking on some GL1800 Gold Wings. As a result of this joint investigation, a recall campaign was initiated. I am glad to report that *your Gold Wing is not part of this campaign.* I want you to know about it so that if you hear of a "recall", you will not be confused or think it pertains to your motorcycle.

The Vehicle Identification Numbers (VINs) of motorcycles that *are affected* are:

'02 ABS Model: From VIN: 1HFSC474*2A102394 Thru VIN: 1HFSC474*2A102823
Non ABS Model: From VIN: 1HFSC470*2A111803 Thru VIN: 1HFSC470*2A113582
'03 ABS Model: From VIN: 1HFSC474*3A200001 Thru VIN: 1HFSC474*3A201126
Non ABS Model: From VIN: 1HFSC470*3A200001 Thru VIN: 1HFSC470*3A204860

We will be taking care of those motorcycles with true Honda Care. We are conducting this recall at no expense to owners of the affected Gold Wing motorcycles. The recall procedure will be to add TIG welding to the frame where the lower cross member meets the side rails. This is TIG welding that your Gold Wing already has and we want the affected motorcycles to have, too. And yes, before you wonder, these welds are on the 2004 Gold Wing.

Owners of motorcycles that are included in this recall were notified first and dealers too have received the information they need. Required parts are already on hand and work is under way. When next you visit your local Honda Dealer you may see these activities in progress. If conducting this work impacts the service work you need from your Honda Dealer, we apologize for any inconvenience and hope you will understand.

Of course, if at any time you have any concerns, questions or any information regarding your frame that you believe we should know, we encourage you to contact us. To provide you with the best service experience possible our GL1800 customer's toll free number remains open 8:30 AM to 5 PM PDT at 1-866-784-1870.

I want to stress again that customer satisfaction is our priority. Thank you for your confidence.

Sincerely,

Ray Blank

American Honda Motor Co., Inc
Ray Blank, Vice President
Motorcycle Division

Attachment 5

Honda's
October 3, 2003
Recall "Package" Templates

DRAW SCRIBE MARKS ALONG EDGES INDICATED BY ARROWS (EITHER SIDE OF LW)
GROOVE DEPTH
UP
WELD HEIGHT