

ENVIRONMENTAL SOLUTIONS GROUP

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Elgin, IL 60120
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DEFECTS INVESTIGATION
RECALL MGMT DIV.

08V-038
(15 pages)

January 23, 2008

Mr. George Person
National Highway Traffic Safety Administration (NHTSA)
Office of Defects Investigation, NVS-211
1200 New Jersey Avenue S.E.
Washington, DC 20590

ELGIN
VACTOR
GUZZLER
JETSTREAM
RAVO

Subject: Elgin Sweeper CNG Broom Bear Sweepers on Sterling Actera Chassis

Dear Mr. Person,

We are submitting by electronic mail the PART 573 Defect and Noncompliance Report for the Elgin Sweeper CNG Broom Bear street sweeper mounted on Sterling Actera Chassis. Included with the 573 report are copies of our distributor notification, customer notification, and distributor repair bulletin.

If you should require any additional information regarding this submission, please feel free to contact me at 847-622-7069.

Sincerely,



William Byrnes
Director of Service Operations

Enclosures

Part 573 Defect and Noncompliance Report
Distributor Notification
Customer Notification
Customer Inspection Bulletin
Distributor Service Bulletin



Safety Defect and Noncompliance Report Guide for Vehicles
PART 573 Defect and Noncompliance Report³

On January 18, 2008, Elgin Sweeper Company decided that a defect which relates to motor vehicles 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: January 23, 2008

Furnish the manufacturer's Identification code for this recall (if applicable): _____

1. Identify the full corporate name of the fabricating manufacturer of the vehicle being recalled. If the recalled vehicle is imported, provide the name and mailing address of the designated agent as prescribed by 49 U.S.C. §30164.

Elgin Sweeper Company
1300 W. Bartlett Road
Elgin, IL, 60120

Identify the corporate official, by name and title, whom the agency should contact with respect to this recall.

William Byrnes
Director of Service Operations

Telephone Number: 847-622-7069 **Fax No.:** 847-622-7077

Name and Title of Person who prepared this report:

William Byrnes
Director of Service Operations
Federal Signal, Environmental Solutions Group



Signed: _____

I. Identify the Vehicle Models Involved in the Recall

2. Identify the Vehicles Involved in the Recall, *for each make and model or applicable vehicle line (provide illustrations or photographs as necessary to describe the vehicle), provide:*

Make(s): Elgin Sweeper Model Years Involved: 2006 to 2008 Model(s): Broom Bear (CNG)

Production Dates: Beginning: June 2006 Ending: January 2008

VIN Range: Beginning: H1718D Ending: H2040D

Vehicle Type: Street Sweeper: _____

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

None

Make(s): _____ Model Years Involved: _____ Model(s): _____

Production Dates: Beginning: _____ Ending: _____

VIN Range: Beginning: _____ Ending: _____

Vehicle Type: _____ Bodystyle: _____

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

Make(s): _____ Model Years Involved: _____ Model(s): _____

Production Dates: Beginning: _____ Ending: _____

VIN Range: Beginning: _____ Ending: _____

Vehicle Type: _____ Bodystyle: _____

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

Identify the approximate percentage of the production of all the recalled models manufactured by your company between the inclusive dates of manufacture provided above, that the recalled model population represents. For example, if the recall involved Widgets equipped with certain items for equipment from January 1, 1996 through April 1, 1997, then what was the percentage of the recalled Widgets of all Widgets manufactured during that time period. 100%

II. Identify the Recall Population

3. Furnish the total number of vehicles recalled potentially containing the defect or noncompliance.

Model	Year	Number of Vehicles Potentially Involved
<u>Elgin Broom Bear Sweeper</u>	<u>2006</u>	<u>1</u>
<u>Elgin Broom Bear Sweeper</u>	<u>2007</u>	<u>44</u>
<u>Elgin Broom Bear Sweeper</u>	<u>2008</u>	<u>21</u>

Total Number Potentially Affected by the Recall: 66

4. Furnish the approximate percentage of the total number of vehicles estimated to actually contain the defect or noncompliance: 100%

Identify and describe how the recall population was determined—in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled vehicles:

Elgin Sweeper Company began manufacturing Broom Bear Street Sweepers powered by Compressed Natural Gas (CNG) engines on Sterling Actera chassis beginning in June 2006. Physical observation of sweeping conditions and technical analysis indicated that the sweepers were being used in a manner that was not included in the original design criteria. Operators would pile leaves beneath the truck to a height that was significantly above the sweeper's ability to pick up. They would then back up through the pile which would pack debris in the exhaust pipe. Under heavy operating conditions, the exhaust temperatures can exceed 800 degrees (F). The exhaust temperatures could ignite the debris that is either packed in the exhaust pipe or trapped under the chassis. Therefore all Broom Bear sweepers with CNG engines mounted on Sterling Actera chassis between June 2006 and January 2008 are affected.

III. Describe the Defect or Noncompliance

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

Accumulated debris either packed into the exhaust pipe or trapped in front of the elevator assembly could ignite due to high CNG exhaust temperatures while sweeping. The exhaust

discharge is located under the passenger compartment of the chassis and in front of the rear axle.

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

The design of the exhaust outlet is not routed adequately to discharge high CNG exhaust temperatures away from any potential accumulating debris.

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

CNG exhaust temperatures can exceed 800 (F) degrees under sweeping conditions. There is a remote possibility that under certain sweeping conditions, lightweight debris such as leaves or litter could accumulate either in the exhaust pipe or in front of the rear axle. The hot CNG exhaust temperatures could ignite the debris. If this condition occurs, it could cause injury to the operator or personnel near the street sweeper. Elgin Sweeper has no reports of any injuries due to this operating condition.

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

Routine inspections under the street sweeper may reveal the accumulation of debris in front of the rear axle.

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

N/A

Identify the name and title of the chief executive officer or knowledgeable representative of the supplier:

N/A

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 a 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.

On November 19, 2007 Elgin Sweeper Dealer Haaker Equipment Company reported that Broom Bear (CNG) sweeper H1892D, mounted on a Sterling Actera chassis had caught fire on 16 November, 2007. At the time of this report, Haaker Equipment also reported two additional units had previously experienced the same problem prior to H1892D. The first occurrence was in August of 2007, and the second on October 26, 2007. There were no reported injuries as a result of these occurrences.

Elgin Sweeper began conducting a technical evaluation to determine the root cause of these fires. Elgin Sweeper dispatched personnel on December 12-13, 2007 to conduct an onsite analysis of the problem. The analysis included observing the sweepers while operating and the type of debris being swept. It was determined that the sweepers were being driven over piles of lightweight debris and leaves. This debris would accumulate either in the exhaust pipe or in front of the rear axle near the exhaust discharge pipe. Using the street sweeper in this manner was different than the design and intended use. As a result, it was determined that the exhaust discharge is located under the chassis and not routed to the side of the truck.

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

V. Identify the Remedy

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

Elgin Sweeper Company's remedy is documented in Elgin's Service Bulletin 0703167 "Exhaust Re-Route Broom Bear CNG Sweepers mounted on Actera Chassis" An Elgin Sweeper Dealer will repair these defects free of charge. A new exhaust pipe which routes the exhaust discharge away from under the chassis will be installed on the customer's vehicle. This new exhaust pipe is visually different from the original design and will distinguish an updated Broom Bear CHG sweeper on a Sterling Actera chassis from the original design.

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

The difference between the recall condition and the remedy is the addition of a new exhaust pipe. This is described in Elgin's Service Bulletin 0703167 "Exhaust Re-Route Broom Bear CNG Sweepers mounted on Actera Chassis" (attached). The addition of the pipe routes the exhaust away from the under the chassis, , and is visually different.

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 same new exhaust components that are being installed on customers' vehicles are now being installed on new Elgin Broom Bear sweepers with CNG engines mounted on Sterling Actera chassis.

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.

Initial mailing to Elgin Sweeper Dealers: January 28, 2008

Notification to customers: January 30-31, 2008

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.

ENVIRONMENTAL SOLUTIONS GROUP

1621 South Illinois Street
Streator, IL 61364
p. (815) 672-3171
f. (815) 673-1621
www.vactor.com

January 28, 2008

Dealer Name
Address
City, State, Zip

ELGIN
VACTOR
GUZZLER
JETSTREAM
RAVO

Re: URGENT SAFETY RECALL – ELGIN EXHAUST RE-ROUTE FOR BROOM BEAR CHG SWEEPERS MOUNTED ON ACTERA CHASSIS

RE: CNG powered Broom Bear street sweepers manufactured by Elgin Sweeper from June 2006 through January 2008. Elgin serial numbers H1718D through H2040D.

Dear Elgin Dealer,

A Safety Recall – Exhaust relocation Broom Bear sweepers mounted on Actera Chassis Service Bulletin #0703167 has been issued for Broom Bear street sweepers mounted on Sterling Actera chassis with CNG engines. The exhaust discharge pipe is located under the passenger compartment of the chassis. When sweeping certain types of debris such as lightweight litter and leaves, debris could accumulate in front of the rear axle and in the exhaust discharge pipe. In remote circumstances under heavy sweeping conditions, the exhaust temperature can exceed 800 (F) degrees and the debris could catch fire. Personnel operating or near the machine could be injured if this condition occurs. All Elgin Broom Bear street sweepers manufactured from June 2006 through January 2008 mounted on Sterling Actera chassis with CNG engines must be repaired per the repair instructions in Service Bulletin #0703167. Your customers have been informed of this recall. Customers should routinely inspect the sweeper for accumulated debris near or in the exhaust discharge pipe and in front of the rear axle before during and after operation. You may be contacted by customers for assistance with this inspection. Please show the customer how to perform the inspection if you are asked for assistance.

Elgin Sweeper has developed a solution for this for this problem with Field Repair Kit #1091931. These parts will be available to order when the customer receives the notification. Any units that may be affected will be repaired at no charge to the customer. Customers will be asked to contact you to schedule the repair. We anticipate this repair to take approximately 2 hours. Please use the attached Recall Service Bulletin that will provide instructions for making the necessary repairs to reroute the exhaust discharge pipe on the Broom Bear street sweeper.

Please contact the Elgin Service Department at 1-815-672-3171, if you have any questions regarding this notice.

Thank you for your support on this upcoming Broom Bear sweeper recall.

Sincerely,

Mario Martinez
Service Manager, Elgin Sweeper

Attachments:

Service Bulletin #0703167 Recall – Exhaust Relocation Broom Bear CNG sweepers on Actera
Chassis
Copy of Customer Mailing

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1300 W. Bartlett Road
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www.elginsweeper.com

January 29, 2007

Customer name
Customer Address 1
Customer Address 2

ELGIN

VACTOR

GUZZLER

JETSTREAM

Elgin Broom Bear (CNG) Sweeper Serial Numbers:

Dear Elgin Customer:

RAVO

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

REASON FOR RECALL

Elgin Sweeper has determined that a defect which relates to motor vehicle safety exists in certain Broom Bear sweepers with Compressed Natural Gas (CNG) fuel systems manufactured from June 2006 through January 2008. Sweeping debris may build up in front of the rear axle and in the exhaust discharge pipe. Under heavy sweeping conditions, the CNG exhaust temperatures can exceed 800 (F) degrees. The exhaust temperature could ignite the debris. Personnel near the street sweeper could be injured and property damage could occur. All Elgin CNG Broom Bear sweepers mounted on Sterling Actera chassis June 2006 through January 2008 will need to be repaired to prevent this condition.

WHAT WE WILL DO

A safety recall has been issued for Elgin Broom Bear sweepers with CNG exhaust. Elgin Sweeper will repair this defect free of charge. We will install a new exhaust system that redirects the exhaust discharge away from the elevator system and debris.

WHAT YOU SHOULD DO

Routinely inspect the sweeper before, during, and after operation to ensure that debris is not accumulating in front of the rear axle or inside the exhaust discharge pipe. This area should be free of any debris.

Please contact your Elgin Sweeper dealer as soon as possible to arrange a service date so the dealer may order the necessary parts for the repair. Instructions for making this correction have been sent to your dealer and the parts are available. It will take approximately 2 hours to complete this repair. Please ask your dealer if you wish to know how much additional time will be needed to schedule and process your vehicle.

Federal regulations require that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten (10) days.

If you had this repair performed before you received this letter, you may be eligible to receive reimbursement for the cost of obtaining a pre-notification remedy of the problem associated with this recall. For more information contact Elgin Sweeper Customer Service Department at 1-877-DIAL-ESG (1-877-342-



5374).

Your Elgin Sweeper dealer is best equipped to obtain parts and provide service to ensure that your Broom Bear sweeper is corrected as promptly as possible. If, however, you take your sweeper to your dealer on the agreed service date, and they do not remedy this condition within six (6) days of that date, we recommend you contact Elgin Customer Service by calling 1-877-DIAL-ESG (1-877-342-5374).

We regret any inconvenience that this action may cause you. However, we are concerned about your safety. If your dealer fails or is unable to remedy this defect without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE, Washington, DC 20590, or call the toll-free Vehicle Safety Hotline at 1-888-327-4236; (TTY: 1-800-424-9153); or go to <http://www.safercar.gov>.

Sincerely,

Mario Martinez
Service Manager
Elgin Sweeper

cc: Elgin Dealer

**SAFETY RECALL
NOTICE**

ELGIN.

Ricker Machinery
909 7th Street
Oakland, CA 94607

Elgin Sweeper Company 1300 West Bartlett Road Elgin, Illinois, U.S.A. 60120-7529



1300 West Bartlett Road
 Elgin, Illinois 60120-7529
 Phone: (847) 741-5370
 Fax: (847) 622-7077

SERVICE BULLETIN

DATE: 01/21/2008

NUMBER: 0703167

SUBJECT: SAFETY RECALL
 Exhaust Re-Route Broom Bear CNG Sweepers
 mounted on Actera Chassis.

TO: All Dealer Principals, Service Managers,
 Parts Managers and Regional Managers
INTENT:

Install FSO 1091931 on Broom Bear CNG sweepers mounted on Sterling Acterra chassis as shown in the drawing supplied with the kit.

UNITS TO SERVICE:

Broom Bear CNG sweepers mounted on Sterling Actera chassis that are covered under warranty. Application for other units must have approval of Regional Service Manager.

WARRANTY COVERAGE:

A 2 hour warranty claim can be submitted for each unit that is fitted with FSO 1091931.

SPECIAL TOOLS:

Normal hand tools, air or electric Cut-off tool and a 4" exhaust pipe expander

PARTS REQUIRED:

Part No.	Qty.	Description
1091931	1	FSO Exhaust Kit

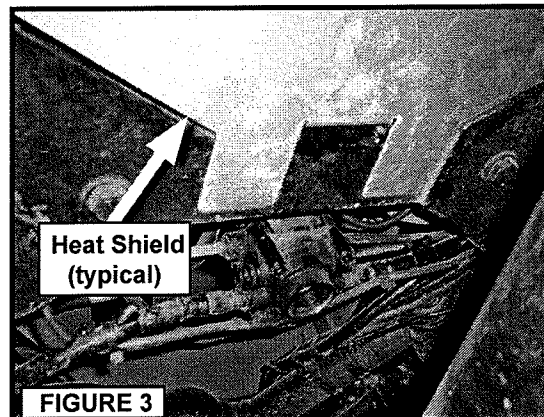
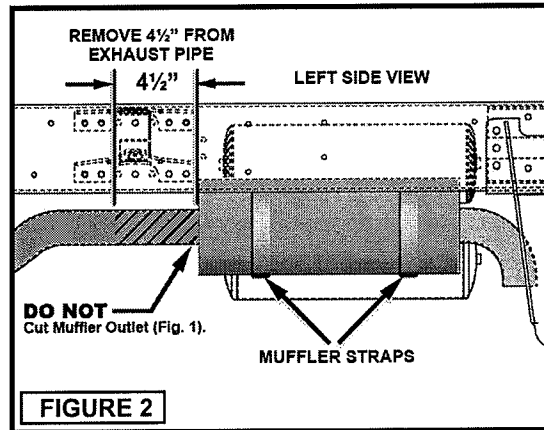
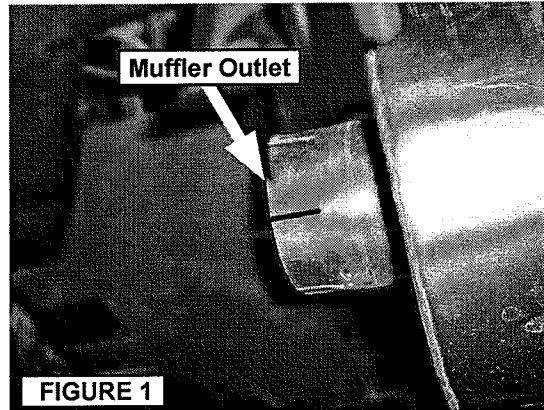
PARTS AVAILABILITY:
 01/15/08

PROCEDURE:

- Remove hydraulic valve cover.
- Remove tailpipe from muffler outlet (Fig. 1&6).
- Resize muffler outlet connection using a suitable expander or other tool (Fig. 1).
- Loosen muffler straps and exhaust pipe clamp.
- Slide muffler rearward.
- Cut 4-1/2" from end of exhaust pipe (Fig. 2).
- Re-install muffler and tighten straps.
- Install heat shield to the chassis cross member as shown using hardware supplied in the kit.

NOTE: It may be easier to remove Intermediate exhaust pipe to cut the pipe.
NOTE: There are two types of chassis cross members. Fig. 3 is a direct bolt-in to existing holes. Others (not shown) must be drilled for hardware.

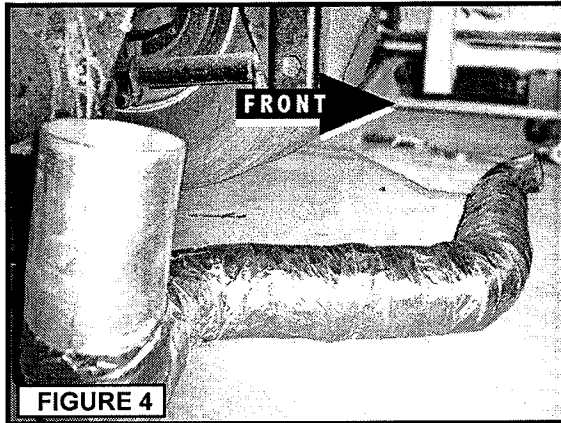
ALWAYS REFER TO THE SAFETY SECTION IN THE OPERATOR MANUAL BEFORE STARTING WORK.



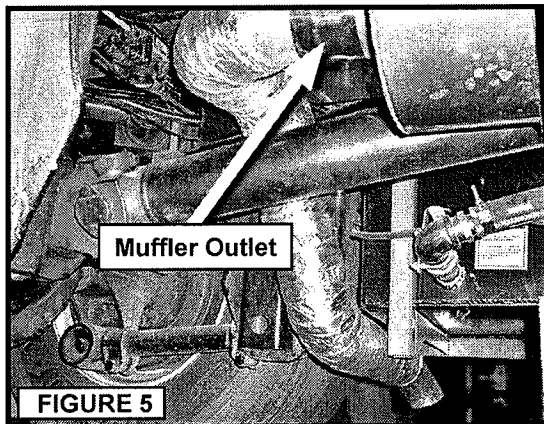
Operators and maintenance personnel should frequently review Elgin's website for Technical Tips and Updates regarding the operation and maintenance of Elgin products. (www.elginsweeper.com)

PROCEDURE: (Continued)

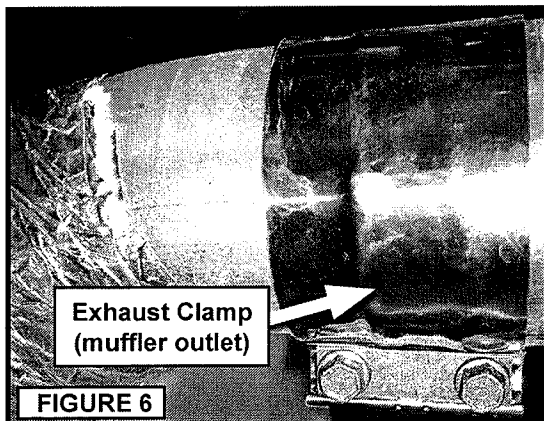
- Position FSO exhaust pipe beneath chassis with the outlet facing the front of the truck. (Fig. 4)



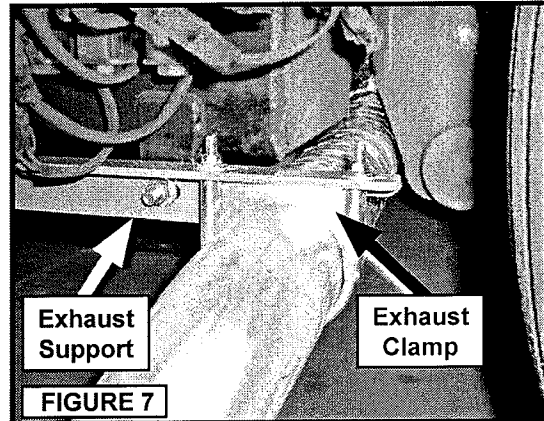
- Lift Pipe over driveshaft, rotate the pipe so pipe inlet aligns with the muffler outlet. (Exhaust outlet will be just below hydraulic valve cover and in front of the Left Rear Wheel (Fig. 5).



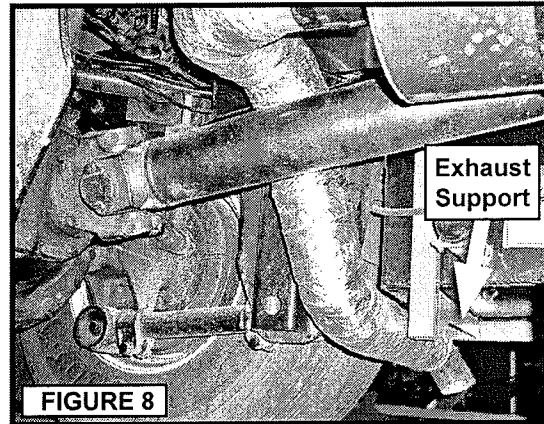
- Engage new exhaust pipe and clamp it to the muffler outlet. Leave clamp loose until final alignment is complete (Fig. 6).
- Attach the Exhaust Support to the Hydraulic Tank Bracket. (Fig. 7)



- Lift pipe into position shown and install Exhaust clamp (Fig. 7).



- Confirm exhaust pipe will not contact driveshaft or other sweeper components and tighten exhaust clamps securely (Fig. 6, 7 and 8).



- Re-install hydraulic valve cover (Fig. 9).
- Start sweeper engine and confirm that there are no exhaust leaks or component interference. Repair leaks, adjust as necessary to eliminate interference before returning sweeper to service.

