INFORMATION Redacted PURSUANT TO THE FREEDOM OF INFORMATION ACT (FOIA), 5 U.S.C. 552(B)(6)

MYUNDAI-KIA

October 27, 2010

Mr. Jeffrey L. Quandt Chief, Vehicle Control Division Office of Defects Investigation National Highway Traffic Safety Administration 1200 New Jersey Avenue, SE Washington, D.C. 20590

RE: NVS-213kmb, PE10-035

Dear Mr. Quandt:

This letter provides a response to your above referenced request for information, dated September 7, 2010.

Prior to responding to the request, Hyundai objects to NHTSA's boilerplate definition of "Document" as vague, incomprehensible, overly broad and unduly burdensome. Hyundai has made a good faith, reasonable attempt to search for materials responsive to each request in the time frame provided.

Request 1.

State the number of subject vehicles Hyundai has manufactured for sale or lease in the United States. Separately, for each subject vehicle manufactured to date by Hyundai, state the following:

- a. Vehicle identification number (VIN);
- b. Make;
- c. Model;
- d. Model Year;
- e. Date of manufacture;
- f. Date warranty coverage commenced; and
- g. The State in the United States where the vehicle was originally sold or leased (or delivered for sale or lease).

Provide the table in Microsoft Access 2000, or a compatible format, entitled "PRODUCTION DATA." See Enclosure 1, Data Collection Disc, for a pre-formatted table which provides further details regarding this submission.

Hyundai-Kia America Technical Center Inc. 6800 Geddes Road, Superior Township, MI 48198 TEL: 734-337-9499 FAX: 734-483-5919 www.hatci.com

HATCI is an authorized representative of both Hyundai Motor Company and Kia Motors Corporation; which are separate and distinct automotive manufacturers.

Response to Request 1.

161,946 MY 2011 Hyundai Sonata vehicles have been manufactured through October 8, 2010.

See ATTACHMENT "PRODUCTION DATA.mbd" for additional requested information.

Source: Hyundai Motor America Information as of October 12, 2010

Request 2.

State the number of each of the following, received by Hyundai, or of which Hyundai is otherwise aware, which relate to, or may relate to, the alleged defect in the subject vehicles:

- a. Consumer complaints, including those from fleet operators;
- b. Field reports, including dealer field reports;
- c. Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;
- d. Property damage claims;
- e. Third-party arbitration proceedings where Hyundai is or was a party to the arbitration; and
- f. Lawsuits, both pending and closed, in which Hyundai is or was a defendant or codefendant.

For subparts "a" through "d" state the total number of each item (e.g., consumer complaints, field reports, etc.) separately. Multiple incidents involving the same vehicle are to be counted separately. Multiple reports of the same incident are also to be counted separately (i.e., a consumer complaint and a field report involving the same incident in which a crash occurred are to be counted as a crash report, a field report and a consumer complaint).

In addition, for items "c" through "f," provide a summary description of the alleged problem and causal and contributing factors and Hyundai's assessment of the problem, with a summary of the significant underlying facts and evidence. For items "e" and "f," identify the parties to the action, as well as the caption, court, docket number, and date on which the complaint or other document initiating the action was filed.

Response to Request 2.

a. Consumer complaints, including those from fleet operators;

Two

b. Field reports, including dealer field reports;

Five

c. Reports involving a crash, injury, or fatality, based on claims against the manufacturer involving a death or injury, notices received by the manufacturer alleging or proving that a death or injury was caused by a possible defect in a subject vehicle, property damage claims, consumer complaints, or field reports;

None

d. Property damage claims;

None

a. Third-party arbitration proceedings where Hyundai is or was a party to the arbitration; and

None

f. Lawsuits, both pending and closed, in which Hyundai is or was a defendant or codefendant.

None

Source: Hyundai Motor America Information as of October 4, 2010

Request 3.

Separately, for each item (complaint, report, claim, notice, or matter) within the scope of your response to Request No. 2, state the following information:

- a. Hyundai's file number or other identifier used;
- b. The category of the item, as identified in Request No. 2 (i.e., consumer complaint, field report, etc.);
- c. Vehicle owner or fleet name (and fleet contact person), address, and telephone number;
- d. Vehicle's VIN;
- e. Vehicle's make, model and model year;
- f. Vehicle's mileage at time of incident;
- g. Incident date;
- h. Report or claim date;
- i. Whether a crash is alleged;
- j. Whether property damage is alleged;
- k. Number of alleged injuries, if any; and
- 1. Number of alleged fatalities, if any.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "REQUEST NUMBER TWO DATA." See Enclosure 1, Data Collection Disc, for a preformatted table which provides further details regarding this submission.

Response to Request 3.

See ATTACHMENT "REQUEST NUMBER TWO DATA.mdb" for requested information.

Source: Hyundai Motor America Information as of October 4, 2010

Request 4.

Produce copies of all documents related to each item within the scope of Request No. 2. Organize the documents separately by category (i.e., consumer complaints, field reports, etc.) and describe the method Hyundai used for organizing the documents.

Response to Request 4.

See ATTACHMENT A for requested consumer complaint information organized by file number. See ATTACHMENT B for requested field report information. Field reports are identified by VIN.

Source: Hyundai Motor America Information as of October 5, 2010 for Attachment A, October 4, 2010 for Attachment B.

Request 5.

State a total count of the following categories of claims, collectively, that have been paid by Hyundai to date that relate to, or may relate to, the alleged defect in the subject vehicles: warranty claims; extended warranty claims; claims for good will services that were provided; field, zone, or similar adjustments and reimbursements; and warranty claims or repairs made in accordance with a procedure specified in a technical service bulletin or customer satisfaction campaign.

Separately, for each such claim, state the following information:

- a. Hyundai's claim number;
- b. Vehicle owner or fleet name (and fleet contact person) and telephone number;
- c. VIN;
- d. Repair date;
- e. Vehicle mileage at time of repair;
- f. Repairing dealer's or facility's name, telephone number, city and state or ZIP code;
- g. Labor operation number;
- h. Problem code;
- i. Replacement part number(s) and description(s);
- j. Concern stated by customer; and
- k. Comment, if any, by dealer/technician relating to claim and/or repair.

Provide this information in Microsoft Access 2000, or a compatible format, entitled "WARRANTY DATA."

Response to Request 5.

Ten warranty claims.

See ATTACHMENT "WARRANTY DATA.mdb" for additional requested information.

Source: Hyundai Motor America Information as of October 8, 2010

Request 6.

Describe in detail the search criteria used by Hyundai to identify the claims identified in response to Request No. 5, including the labor operations, problem codes, part numbers and any other pertinent parameters used. Provide a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions applicable to the alleged defect in the subject vehicles. State, by make and model year, the terms of the new vehicle warranty coverage offered by Hyundai on the subject vehicles (i.e., the number of months and mileage for which coverage is provided and the vehicle systems that are covered). Describe any extended warranty coverage option(s) that Hyundai offered for the subject vehicles and state by option, model, and model year, the number of vehicles that are covered under each such extended warranty.

Response to Request 6.

The claims were identified by searching for warranty claims containing information for the steering column intermediate shaft (Steering Joint Assembly Part Number 56400-3Q000) and (Universal Joint and/or Coupling Assembly Operation Code 56400R00) and bolts (Bolt Part Numbers 56415-1C000 and 56415-3W000) for 2011 model year Hyundai Sonata vehicles.

Please see ATTACHMENT C for a list of all labor operations, labor operation descriptions, problem codes, and problem code descriptions that were associated with the warranty claims.

The Hyundai New Vehicle Limited Warranty period is limited to 60 months from the date of original retail delivery or date of first use, or 60,000 miles, whichever occurs first. Steering column intermediate shafts and universal joint connections are covered by the Hyundai New Vehicle Limited Warranty.

As all subject vehicles are 2011 model year vehicles for which the Hyundai New Vehicle Limited Warranty is in effect, no extended warranty information is applicable.

Source: Hyundai Motor America Information as of October 8, 2010

Request 7.

Produce copies of all service, warranty, and other documents that relate to, or may relate to, the alleged defect in the subject vehicles, that Hyundai has issued to any dealers, regional or zone offices, field offices, fleet purchasers, or other entities. This includes, but is not limited to, bulletins, advisories, informational documents, training documents, or other documents or communications, with the exception of standard shop manuals. Also include the latest draft copy of any communication that Hyundai is planning to issue within the next 120 days.

Response to Request 7.

Please see ATTACHMENT D for requested information.

Source: Hyundai Motor America Information as of October 13, 2010

Request 8.

Describe all assessments, analyses, tests, test results, studies, surveys, simulations, investigations, inquiries and/or evaluations (collectively, "actions") that relate to, or may relate to, the alleged defect in the subject vehicles that have been conducted, are being conducted, are planned, or are being planned by, or for, Hyundai. For each such action, provide the following information:

- a. Action title or identifier;
- b. The actual or planned start date;
- c. The actual or expected end date;
- d. Brief summary of the subject and objective of the action;
- e. Engineering group(s)/supplier(s) responsible for designing and for conducting the action; and
- f. A brief summary of the findings and/or conclusions resulting from the action.

For each action identified, provide copies of all documents related to the action, regardless of whether the documents are in interim, draft, or final form. Organize the documents chronologically by action.

Response to Request 8.

See ATTACHMENT E containing one Quality Information Report and attachment, ATTACHMENT F, ATTACHMENT G, and ATTACHMENT H for requested information. ATTACHMENT F, ATTACHMENT G, and ATTACHMENT H have been provided to the Office of Chief Counsel with a request for treatment as Confidential Business Information.

Source: Hyundai Motor Company Information as of October 20, 2010

Request 9.

Describe in detail the design, material composition, manufacture, quality control, supply, and installation of the subject components, including:

- a. All assembly processes related to the subject components, including graphic depictions (i.e., photographs and/or video footage) detailing each step in the vehicle assembly process related to the subject components;
- b. All "fool-proofing" features that help technicians avoid assembly mistakes (i.e., mechanisms to ensure that parts are assembled in the proper sequence and orientation, fasteners can only be inserted when there is adequate part engagement, etc.);
- c. Whether any thread dressing compound(s), such as a lubricant or thread locking agent, is used on any subject component fasteners;
- d. The target, maximum and minimum design torque specifications for subject component fasteners, both static and dynamic;
- e. The type(s) of tooling used to apply torque to subject component fasteners (i.e., DC electric or pneumatic power tools);
- f. Whether dynamic torque and/or angular displacement applied to subject component fasteners is monitored and/or recorded for each subject vehicle;
- g. The process for operations not completed in station on the assembly line, including whether there is an Automatic Line Stop procedure if the torque applied to a subject component fastener is not achieved at the respective assembly line station; and
- h. The frequency of static (audit) torque checks on subject component fasteners (every vehicle, samples or none).

Response to Request 9.

See ATTACHMENT F, ATTACHMENT G, and ATTACHMENT H for requested information. ATTACHMENT F, ATTACHMENT G, and ATTACHMENT H have been provided to the Office of Chief Counsel with a request for treatment as Confidential Business Information.

Source: Hyundai Motor Company Information as of October 20, 2010

Request 10.

Describe all modifications or changes made by, or on behalf of, Hyundai in the design, material composition, manufacture, quality control, supply, or installation of the subject components, from the start of production to date, which relate to, or may relate to, the alleged defect in the subject vehicles. For each such modification or change, provide the following information:

- a. The date or approximate date on which the modification or change was incorporated into vehicle production;
- b. A detailed description of the modification or change;
- c. The reason(s) for the modification or change;
- d. The part number(s) (service and engineering) of the original components;

- e. The part number(s) (service and engineering) of any modified components;
- f. Whether the original unmodified component was withdrawn from production and/or sale, and if so, when;
- g. When the modified component was made available as a service component; and
- h. Whether the modified component can be interchanged with earlier production components.

Also, provide the above information for any modification or change that Hyundai is aware of which may be incorporated into vehicle production within the next 120 days.

Response to Request 10.

See ATTACHMENT F, ATTACHMENT G, and ATTACHMENT H for requested information. ATTACHMENT F, ATTACHMENT G, and ATTACHMENT H have been provided to the Office of Chief Counsel with a request for treatment as Confidential Business Information.

Source: Hyundai Motor Company Information as of October 20, 2010

Request 11.

Produce one of each of the following:

- a. Exemplar samples of each design version of the subject components;
- b. Field return samples of the subject components exhibiting the subject failure mode; and
- c. Any kits that have been released, or developed, by Hyundai for use in service repairs to the subject components/assembly which relate, or may relate, to the alleged defect in the subject vehicles.

Response to Request 11.

- a. Exemplar samples have been shipped separately as ATTACHMENT I.
- b. Only a very few steering column intermediate shafts or bolts have been replaced, and they have been used for analysis by Hyundai and its suppliers. No field return samples are currently available to provide with this response.
- c. No kits have been released, or developed, by Hyundai for use in service repairs to the subject or related components/assembly which relate, or may relate, to the alleged defect in the subject vehicles;

Source for 11b: Hyundai Motor Company Information as of October 20, 2010

Source for 11a and 11c: Hyundai Motor America Information as of October 27, 2010

Request 12.

State the number of each of the following that Hyundai has sold that may be used in the subject vehicles by component name, part number (both service and engineering/production), model and model year of the vehicle in which it is used, and month/year of sale *(including the cut-off date for sales, if applicable)*:

- a. Subject components; and
- b. Any kits that have been released, or developed, by Hyundai for use in service repairs to the subject component/assembly.

For each component part number, provide the supplier's name, address, and appropriate point of contact (name, title, and telephone number). Also identify by make, model and model year, any other vehicles of which Hyundai is aware that contain the identical component, whether installed in production or in service, and state the applicable dates of production or service usage.

Response to Request 12.

See ATTACHMENT J for requested part sales information of subject components. No kits have been released or developed.

Source: Hyundai Motor America Information as of October 8, 2010

See ATTACHMENT K for requested part supplier information.

Source: Hyundai Motor Company Information as of October 20, 2010

Request 13.

Furnish Hyundai's assessment of the alleged defect in the subject vehicles, including:

- a. The causal or contributory factor(s);
- b. The failure mechanism(s);
- c. The failure mode(s);
- d. The risk to motor vehicle safety that it poses;
- e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject component was malfunctioning; and
- b. The reports included with this inquiry. Provide the assembly line station torque and/or static (audit) torque applied to the subject component fasteners in the subject EWR vehicle(s). Also, provide the complete repair history on the subject EWR vehicle(s) to date, including all repair work performed prior to entering service (i.e., at the assembly plant prior to final assembly, at the port prior to delivery to the selling dealer, etc.).

Response to Request 13.

a. The causal or contributory factor(s);

See ATTACHMENT F, ATTACHMENT G, and ATTACHMENT H for requested information. ATTACHMENT F, ATTACHMENT G, and ATTACHMENT H have been provided to the Office of Chief Counsel with a request for treatment as Confidential Business Information.

b. The failure mechanism(s);

See ATTACHMENT F, ATTACHMENT G, and ATTACHMENT H for requested information. ATTACHMENT F, ATTACHMENT G, and ATTACHMENT H have been provided to the Office of Chief Counsel with a request for treatment as Confidential Business Information.

c. The failure mode(s);

See ATTACHMENT F, ATTACHMENT G, and ATTACHMENT H for requested information. ATTACHMENT F, ATTACHMENT G, and ATTACHMENT H have been provided to the Office of Chief Counsel with a request for treatment as Confidential Business Information.

d. The risk to motor vehicle safety that it poses;

If the connection between the steering wheel and steering gear separates, the driver would lose the ability to steer the front wheels, which may increase the risk of a vehicle crash. Hyundai submitted a Part 573 defect information report to NHTSA on September 21, 2010 stating its decision to conduct a recall to inspect the subject vehicles for the alleged defect and to make repairs when necessary and is presently conducting recall 10V-426.

e. What warnings, if any, the operator and the other persons both inside and outside the vehicle would have that the alleged defect was occurring or subject component was malfunctioning; and

If the vehicle has an improper or loose steering column intermediate shaft universal joint connection, the occupants may hear noises when the steering wheel is turned or the driver may notice that the steering feels loose or less responsive. These are indications that the vehicle should be serviced.

f. The reports included with this inquiry. Provide the assembly line station torque and/or static (audit) torque applied to the subject component fasteners in the subject EWR vehicle(s). Also, provide the complete repair history on the subject EWR vehicle(s) to date, including all repair work performed prior to entering service (i.e., at the assembly plant prior to final assembly, at the port prior to delivery to the selling dealer, etc.).

See ATTACHMENT L for requested torque value information.

Source: Hyundai Motor Company Information as of October 20, 2010

No repairs were made at the assembly plant. See ATTACHMENT M for requested repair history information.

Source: Hyundai Motor America Information as of October 18, 2010

Please let me know if you have any questions about the information provided in this letter.

Sincerely,

RobertBahcock

Robert Babcock Senior Manager, Regulation and Certification Department

Attachments:

Two CDs, each containing: PRODUCTION DATA.mdb; REQUEST NUMBER TWO DATA.mdb; WARRANTY DATA.mdb; ATTACHMENT A Consumer Complaints.xls; ATTACHMENT B Field Reports (containing 5 Field Report pdf files and 8 jpg files); ATTACHMENT C Warranty Data Related Codes.xlw; ATTACHMENT D Field Service Information (containing 4 pdf files and 3 doc files); ATTACHMENT E Quality Information Report (containing 2 pdf files); ATTACHMENT F Yoke and Bearing Cap.ppt; (Attachment F has been provided to the Office of Chief Counsel with a request for treatment as Confidential Business Information.) ATTACHMENT G Upper U Joint Bolt Assembly.ppt; (Attachment G has been provided to the Office of Chief Counsel with a request for treatment as Confidential Business Information.) ATTACHMENT H Lower U Joint Bolt Assembly.ppt; (Attachment H has been provided to the Office of Chief Counsel with a request for treatment as Confidential Business Information.) ATTACHMENT J Part Sales Information.xls ATTACHMENT K Part Supplier Information.xls ATTACHMENT L Torque Values.ppt ATTACHMENT M Repair Histories (containing 2 pdf files)

Note: ATTACHMENT I Parts Shipped Separately

PE10-035 HYUNDAI – KIA 10-27-2010 ATTACHMENT **B PAGE 13 D PAGE** 36 **E PAGE 72 K PAGE 75 L PAGE 78 M PAGE 85**

PE10-035 HYUNDAI – KIA 10-27-2010 ATTACHMENT B Field Reports







Created by Joshua Graf on 03/29/2010 11:26:30 AM.

* Required Fields

Submitted by Joshua Graf on 04/02/2010. Finalized by Joshua Graf on 04/02/2010 11:05:21 AM.

This case was opened for 1 day.									
Dealer Code*	Model*	Year*	VIN	*		Mileage*	Prod. Date		Route to
KY005	Sonata (YF)	2011	5NPE	B4AC5BH		66	01/21/2010		FTS
Severity Code*	Priority*	CA Case	#	Tech. Case #	Assistance	е Туре		FSE	Name*
10	High	n/a		n/a	IQS			Joshu	ia Graf

Part Name	Part Number	P.C. Code#*	Diag Code#*	TREAD Cat.*
		СН04	n/a	01 Steering system

Target Date:	
03/29/2010	

Comment:

Subject*:

2011 YF - No steering control - Intermediate steering shaft FRFT

Condition*:

Customer states they were sitting at a stop light waiting to make a right hand turn. When the light turned green they tried to turn but they could not. The steering wheel would turn but the car went straight.

Vehicle History*:

PDI

Root Cause Analysis*:

•	When vehicle arrived at dealer
	the technician found the
	intermediate shaft detached
	from the steering rack shaft as
	shown here

 The intermediate shaft was on installed on the top splines shown here and the mounting bolt was tightened above the shaft it was never slid down to the groove shown here NOTE: The pinch/mounting bolt was tight when the vehicle arrived at the dealer
Corrective Action*:
Install the intermediate shaft onto the steering rack shaft in the correct location and torque mounting/pinch bolt
Reason(s) vehicle was not previously repaired:
n/a
Picture(s) and Attachment(s):

IMG_8472.JPG IMG_8465.JPG IMG_8471.JPG

Did this action resolve condition?	● Yes ○ No
Condition verified by personal inspection of company employee?	● Yes ○ No
Were Photos Taken?	● Yes ○ No
Parts Inspected?	● Yes ○ No
Parts Sent?	○ Yes ● No









Created by Rodney Helgeson on 03/18/2010 01:49:32 PM.

* Required Fields

Submitted by Rodney Helgeson on 03/19/2010. Finalized by Rodney Helgeson on 03/19/2010 01:56:01 PM.

This case was opened for 1 day.						
Dealer Code*	Model*	Year*	VIN*	Mileage*	Prod. Date	Route to
IL061	Sonata (YF)	2011	5NPEB4AC8BH	568	01/08/2010	FTS

Severity Code*	Priority*	CA Case #	Tech. Case #	Assistance Type	FSE Name*
7	Low	n/a	3877152	FPOR	Rodney Helgeson

Part Name	Part Number	P.C. Code#*	Diag Code#*	TREAD Cat.*
intermediate shaft bolt	56400-3Q000	CH04		01 Steering system

Target Date:	Comment:
03/18/2010	03/18/2010 bolt # 56415-1C000 is 12mm need 14 mm pinch bolt
	03/19/2010 Part hotline XVOR # 3879573
	04/19/2010 fed ex shipping # 9952 8769 5281 to hmma atten J.S. arrived 04/01/2010

Subject*:

2011 YF--STEERING RATTLES, INTERMEDIATE SHAFT BOLT LOOSE FRFT

Condition*:

Customer states when moving steering wheel, a rattle noise is coming from under the dash. Tech found upper intermediate shaft U-Joint bolt stripped, not tight

Vehicle History*:

IL061 Q10411 084262 2/18/2010 9 PRE-DELIVERY INSPECTION/SERVICE

Root Cause Analysis*:

pinch bolt cross treaded during assemble on the steering shaft assemble, 12mm bolt on intermediate shaft to steering gear

Corrective Action*:

dealer will replace intermediate steering shaft and pinch bolt (part taken from like vehicle at central region

Reason(s) vehicle was not previously repaired:

no parts available

Picture(s) and Attachment(s):













* Required Fields

Created by Arthur Anderson on 09/16/2010 08:21:08 PM.

Submitted by Arthur Anderson on 09/16/2010 08:33:47 PM. Finalized by Arthur Anderson on 09/16/2010 08:33:47 PM. This case was opened for 1 day. Dealer Code* Model* Year* VIN* Mileage* Prod. Date Route to MD020 Sonata (YF) 2011 5NPEC4AC3BH 12 07/30/2010 FTS Severity Code* Priority* CA Case # Tech. Case # Assistance Type FSE Name* High 7 IQS Arthur Anderson Part Name Part Number* P.C. Code#* Diag Code#* TREAD Cat.* Steering joint assembly 56400-3Q000 CH04 01 Steering system

Subject*:					
2011 YF Sonata noise when turning					
Condition*:					
During the PDI the technician heard a noise when turning.					
Vehicle History*:					
Dealer Claim Denair Penair Denair Operation					
Code Number Order Date Mileage Description					
MD020 252115 252115 09/07/2010 12JOINT AND/OR COUPLING ASSY-UNIVERSAL					
MD020 090110 251687 08/30/2010 8PRE-DELIVERY INSPECTION/SERVICE					
Root Cause Analysis*:					
One of the steering shaft joint caps was missing.					
Corrective Action*:					

Replace steering shaft.

Reason(s) vehicle was not previously repaired:

Picture(s) and Attachment(s):



Did this action resolve condition?	• Yes \bigcirc No
Condition verified by personal inspection of company employee?	\bullet Yes \bigcirc No
Were Photos Taken?	● Yes ○ No
Parts Inspected?	● Yes ○ No
Parts Sent?	○ Yes ● No



Created by Richard Palahunik on 03/08/2010 11:34:52 AM.

* Required Fields

Submitted by Richard Palahunik on 03/09/2010. Finalized by Richard Palahunik on 03/09/2010 04:55:44 PM.

This case was opened for 1 day.										
Dealer Code*	Model*	Year*	VIN*			Mileage*	Prod. Date		Route to	
PA065	Sonata (YF)	2011	5NPEC4AC6BH			234	01/26/2010		FTS	
Severity Code*	Priority*	CA Case	#	Tech. Case #	Assistance	е Туре		FSE	Name*	
10	High			3874327	IQS			Richa	rd Palahunik	

Part Name	Part Number	P.C. Code#*	Diag Code#*	TREAD Cat.*
JOINT ASSY-STRG	56400 3Q000	CH04	no	01 Steering system

 Target Date:
 Comment:

 03/08/2010

Subject*:

2011 YF SONATA STEERING INTERMEDIATE SHAFT universal joint

Condition*:

Customer stated steering is loose

Dealer reported intermediate steering shaft universal joint at base of column has separated.

Vehicle History*:

PA065 51135A 051135 2/23/2010 10 LATCH ASSY-FRONT DOOR(BOTH SIDE PA065 51135B 051135 2/23/2010 10 YF ECM UPDATE P0605/2105/2110 1 PA065 50915A 050915 2/17/2010 5 PRE-DELIVERY INSPECTION/SERVICE Vin Number : 5NPEC4AC6BH008574 (Sonata (YF) 2011) Year : 11 Short Model : 27472 Inventory Status : HI Port : MA Engine Number : G4KJAK010227 Cal Spec : A Accessory Code : 01 Production Date: 1/26/2010 Color Code : S3RY External: PHANTOM BLACK M Internal: BLACK Date Wholesale : 2/09/2010 Sold Dealer : Date Retailed : 3/06/2010 Retailed Dealer: PA065 CONICELLI HYUNDAI : Y Retail Flag Original Owner : ENDLICH, DOUGLAS E

Root Cause Analysis*:

undetermined

Corrective Action*:

Dealer to replace steering shaft assembly

Reason(s) vehicle was not previously repaired:

none

Picture(s) and Attachment(s):

Image: A control of the control of
Did this action resolve condition? \bullet Yes \bigcirc No
Condition verified by personal inspection of company employee? ○ Yes ● No
Were Photos Taken? ○ Yes ● No
Parts Inspected? O Yes No
Parts Sent? O Yes No

HYUNDAI MOTOR MANUFACTURED BY HYUNDAI MOTOR MANUFACTURING ALABAMA, LLC GVWR 4299 Ibs Jan/26/10 PAINT S3 GAWR FRONT 2425 lbs GAWR 2116 lbs TRIM RY THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S.A. FEDERAL MOTOR VEHICLE SAFETY, BUMPER, AND THEFT PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE 5NPEC4AC6BH V.I.N PASSENGER CAR



Created by Joshua Graf on 05/14/2010 09:46:21 AM.

* Required Fields

Submitted by Joshua Graf on 05/14/2010 10:16:05 AM. Finalized by Joshua Graf on 05/14/2010 10:16:05 AM.

			This	case was ope	ned for	1 day.				
Dealer Code*	Model*	Year*	VIN	e e e e e e e e e e e e e e e e e e e		Mileage*	Prod. Date		Route to	
IL030	Sonata (YF)	2011	5NPE	C4AC9BH		1,437	01/21/2010		FTS	
Severity Code*	Priority*	CA Case	#	Tech. Case #	Assistan	се Туре		FSE	Name*	
10	High	n/a		n/a	IQS			Joshu	ia Graf	
Dont Nomo	Da	ut Nu una la cu t			~# *	Diag Cada#*		~ _+ *		

Part Name	Part Number*	P.C. Code#*	Diag Code#*	TREAD Cat.*
Bolt	56415-1C000	CH04	n/a	01 Steering system

Target Date:	Comment:
05/14/2010	

Subject*:

2011 YF - Rattle in steering column

Condition*:

CUSTOMER STATES CAN HEAR/FEEL NOISE THRU STEERING COLUMN ON ROUGH ROADS OR BUMPS AT LOW SPEEDS

Vehicle History*:

		-						
IL030	93105B	193105	00	R	5/11/2010	1,437	10BA17R0	5/11/2010
IL030	189772	189772	00	R	2/23/2010	8	10BA08R1	2/26/2010
IL030	89772B	189772	00	R	2/23/2010	8	10BA05R1	2/26/2010
IL030	189367	189367	00	I	2/12/2010	4	PREDELIV	2/15/2010

Root Cause Analysis*:



PE10-035 HYUNDAI – KIA 10-27-2010 ATTACHMENT D Field Service Information
B H	IYUNI	Technical ואכ Bulletin	Service	Group Numbe	CAMPAI(r 10-01-03	GN 32
Subject S	TEERING COI	COLUMN INTERMEDIA	ATE SHAFT ON	Date S	SEPTEMBEF	R, 2010
(CAMPAIGN 097)				Model	2011 SOI	NATA (YF)
CIRCULATE	TO:	[] GENERAL MANAGER	[X] PARTS MANA	GER	[X] TECHN	ICIAN
[X] SERVICE	ADVISOR	[X] SERVICE MANAGER	[X] WARRANTY	MGR	[] SALES N	IANAGER
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IMPORT	ACC INFC CAM	ESS HYUNDAI MOTOF RMATION" SCREEN V PAIGNS.	AMERICA'S " AMERICA'S " AMERICA'S TO A WEBDCS TO	WARRA D IDEN	ANTY VEHI TIFY OPEN	CLE I
IMPORT	ANT: GDS INST CON	UNIT MUST BE UPDA RUCTIONS CAN BE F TACT GIT AMERICA A	TED TO VERSI OUND AT WWW T 1-888-437-03	ON 1.09 /.HMAS 08.	9.05. UPDA SERVICE.C	ATING OM OR
DESCRI	PTION:					
This bulle the steeri steering p connecte	etin provide ing column pinion splin d and that	es the recall Campaign 0 and the upper intermed ed shaft and the lower i both attaching bolts are	97 procedure fo liate shaft univer ntermediate sha tightened to the	r inspec sal joint ft U join specifie	cting to ensit t (U joint), a it are prope ed torque.	ure that nd the rly
	Steering o	column				
	MDPS ECU		Steering co	lumn-to U	Ligint bolt	
	Intermediat	e shaft		(Upper)		
		E.	Steering pin	ion spline	d shaft-to-	
			U join	t bolt (Lo	wer)	

Additionally, a procedure is provided to update the MDPS software.

VEHICLES AFFECTED:

Model: 2011MY Sonata (YF) 2.4L

Production Date Range: December 11, 2009 through September 10, 2010

VIN Range: 5NPEC4AC6BH000216 ~ 5NPEB4AC8BH151446

PARTS REQUIRED:

PART	FIGURE	REMARK
White paint pen Examples: - Markal Pro-Line HP 96960 - White - Other white touch up paint pens such as 00284-02011JR (YF Sonata White Pearl)	PRO-LINE HP END	Mark the steering shaft U-joint pinch bolt heads (upper and lower) after inspection. For information on local parts availability for Markal paint pens visit: http://www.markal.com
Steering column inter- mediate shaft P/N: 56400-3Q000	(1)	Inspect the threads in the upper and lower U- joints for damage.
Bolt, upper intermediate shaft universal joint. P/N: 56415-3W000		Inspect for damage and torque to spec: 39.8~47.0 lb-ft
Bolt, lower intermediate shaft universal joint. P/N: 56415-1C000		Inspect for damage and torque to spec: 23.9~27.5 lb-ft



STEERING COLUMN INSPECTION PROCEDURE - STEERING COLUMN TO U-JOINT

(UPPER END OF STEERING INTERMEDIATE SHAFT)

- 1. Inspect all 4 U-joint bearing caps. Turn the steering wheel to visually access them. Ensure they are properly fixed in the yoke by the four indentations. If the caps are loose, replace the steering intermediate shaft assembly.
- NOTE: If the shaft is replaced, submit a claim (in addition to the campaign claim) under normal warranty.
- 2. Visually check that the steering column and the U joint are properly connected as shown in the picture on the right.
- NOTE: Look to verify that the end of the steering shaft protrudes about 1/8" into the void of the U-joint (see image). It is not seated properly if it does not protrude slightly.







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3. If the steering column and the U joint are improperly connected as shown in the picture on the right, re-connect the U joint to the steering column according to the steps below. If properly connected, go to step 8.	INCORRECT B
NOTE: The steering column-to-U joint bolt (A) must be fastened through the groove (B) in the end of the steering column.	
 Remove the steering column-to-U joint bolt. 	
 5. Inspect the bolt for damage/ stripping/cross-threading. Inspect the corresponding threads in the U-joint. Replace both if damage is found. NOTE: If the bolt and intermediate shaft are replaced, submit a claim (in addition to the campaign claim) under normal warranty. 	

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in the U joint is aligned with the groove in the end of the steering column.	
 Insert the steering column-to-U joint bolt into the bolt hole and check that the bolt passes through the groove. 	
 Torque the steering column-to-U joint bolt to 39.8~47.0 lb-ft, (53.9~63.7 N-m, 5.5~6.5 kgf-m) with a torque wrench. 	

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9. Mark the bolt head with a white paint pen to complete inspection procedure.



STEERING COLUMN INSPECTION PROCEDURE - STEERING PINION SPLINED SHAFT TO U-JOINT

(LOWER END OF STEERING INTERMEDIATE SHAFT)

- 1. Pull back carpet to access lower end of steering intermediate shaft.
- 2. Inspect all 4 U-joint bearing caps. Turn the steering wheel to visually access them. Ensure they are properly fixed in the yoke by the four indentations. If the caps are loose, replace the steering intermediate shaft assembly.
- NOTE: If the shaft is replaced, submit a claim (in addition to the campaign claim) under normal warranty.





- 3. Visually check that the steering pinion splined shaft and the U joint are properly connected as shown in the picture on the right.
- NOTE: Look to verify that the end of the splined shaft protrudes about 1/4" into the void of the U-joint (see image). It is not seated properly if it does not protrude slightly.



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4. If the splined shaft and the U joint are improperly connected as shown in the picture on the right, re-connect the U joint to the steering column according to the below steps. If properly connected, go to step 9.	INCORRECT
NOTE: The steering pinion splined shaft-to-U joint bolt must be fastened through the groove in the end of the splined shaft.	Carl
 Remove the steering column-to-U joint bolt. 	
 Inspect the bolt for damage/ stripping/cross-threading. Inspect the corresponding threads in the U-joint. Replace both if damage is found. 	
NOTE: If the bolt and intermediate shaft are replaced, submit a claim (in addition to the campaign claim) under normal warranty.	

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 Push the U joint onto the splined shaft until the bolt hole in the U joint is aligned with the groove in the splined shaft. 	
 Insert the bolt into the bolt hole and check that the bolt passes through the groove. 	
 Torque the steering pinion splined shaft-to-U joint bolt to 23.9~27.5 Ib-ft, (32.4~37.3 N-m, 3.3~3.8 kgf- m) with a torque wrench. 	
10. Mark the bolt head with a white paint pen to complete the inspection procedure.	

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SERVICE PROCEDURE - MDPS SOFTWARE UPDATE

NOTE: To verify the vehicle is affected, be sure to check the version of the MDPS ECU ROM ID with reference to the table below before attempting to update the MDPS ECU.

MDPS ECU ROM ID TABLE

MODEL	STEERING COLUMN P/N	ROM ID	
		PREVIOUS	NEW
2011 Sonata	56310-3Q200	4YFH0911	4YFJ1008
(YFA 2.4L)	56310-3Q400	4YFH0912	

CAUTION: During MDPS ECU update:

- 1. Make sure the vehicle's battery has reasonable charge by connecting a power supply to the vehicle's battery.
- 2. Turn off all lamps (do not leave head lamp switch in auto mode) and all accessories (including heater, A/C, blower, radio, seat warmer, defroster, etc.) to prevent battery discharge during the update.
- 3. Perform update with the ignition switch in the ON position.
- 4. Be careful not to disconnect any cables connected to the vehicle or scan tool during update.
- 5. Do not start the engine during update.
- 6. Do not turn off the ignition switch during update.

GDS Installation Procedure



- 1. Connect a power supply to the vehicle's battery to ensure adequate voltage during the update.
- 2. Connect the power supply cable to the diagnostic terminal.
- NOTE: If attempting to perform the update with the power supply cable disconnected from the diagnostic terminal, make certain that the diagnostic terminal is charged enough for the update. If not, the update may fail in progress. Therefore, it is strongly recommended to connect the power supply cable to the diagnostic terminal during the update procedure.
- 3. Connect the USB cable between the VCI and the diagnostic terminal.
- NOTE: When performing the update using the GDS, wireless communication between the VCI and the diagnostic terminal is NOT available. Therefore, be sure to connect the USB cable between the VCI and the diagnostic terminal.
- 4. Connect the 16-pin DLC cable from the VCI into the vehicle's 16-pin connector under the driver side instrument panel.
- 5. Turn on the VCI and diagnostic terminal with the ignition key in the ON position. If equipped with button engine start system, push the engine start button twice WITHOUT depressing the brake pedal.

CAUTION: Do not start the engine.

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AUTOMATIC UPDATE PROCEDURE

- 1. Choose VIN or ECU Update on the initial screen.
- 2. Enter the vehicle information by pressing the **VIN Auto Detect** button, entering the vehicle's VIN or selecting the vehicle model, model year, engine/fuel type and **EPS** as the system and then click **OK**.

GDS VIN Search	Searc	n Auto VIN	Clear Previous Vehicle
SON	IATA(YF)	2011	G 2.4 GDI
System			
	Select System		Selected System
	ESC AIRBAG AIRCON AIRBAG AIRCON PIC TPMS CODE	EPS	Motor Driven Power Steering
G	iroup		Symptom
Fault C	ode Searching	ок	Cancel

- 3. Select **ECU Update** on the initial screen after entering the vehicle information.
- 4. Select Auto Mode then EPS in the left ECU Update column.
- 5. Read **Preparation** and click **OK**.
- 6. The GDS will read the vehicle's **ROM ID**.
- 7. After the Current ROM ID is displayed, select the Update Event, "207.YFA MDPS UPDATE."
- 8. After clicking the **Update** button, read Information then click **OK**.
- 9. The vehicle battery voltage is checked to make sure it is at least 12 volts to ensure reliable update results. Click **OK** if the results indicate Voltage is OK.

CAUTION: If voltage is below 12 volts, click Cancel and then connect a power supply to the vehicle's battery to ensure adequate battery charge state for reliable update results.

- 10. Update will begin and the progress of the update will appear on the bar graph. Progress bar will update every few seconds. Check to ensure proper update progress. Update will occur until 100% is reached on the bar graph.
- 11. Turn the ignition key OFF for 10 seconds, place it back in the ON position and then click **OK** to continue according to Information displayed on the screen.
- 12. Click **OK** on the final screen, which indicates update is complete.
- 13. Check if any incidental **Diagnostic Trouble Codes (DTC)** have been created by the update and clear the **DTC(s)** present.
- 14. Start the engine to confirm proper operation of the vehicle.

MANUAL UPDATE PROCEDURE

- CAUTION: Manual update should be performed only when automatic update fails.
- CAUTION: If automatic update fails, turn the ignition key OFF for about 10 seconds, place it back in the ON position to reset the control unit before performing manual update.
- Within the ECU Update screen, select Manual Mode in the left column, then select Update Event #207. Select the appropriate control unit part number with reference to the ROM ID Information Table and click OK.

• Event	Event List	ISB
Current ROM ID		
Latest ROM ID	4YFJ1008	
	Desuisus	
	rievious opgrade	

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2. Enter the appropriate password from the table below then click **OK**.

MENU	PASSWORD
YFA MDPS : 56310-3Q200/400	3400

3. The vehicle battery voltage is checked to make sure it is at least 12 volts to ensure reliable update results. Click **OK** if the results indicate Voltage is OK.

CAUTION: If voltage is below 12 volts, click Cancel and then connect a power supply to the vehicle's battery to ensure adequate battery charge state for reliable update results.

- 4. Update will begin and the progress of the update will appear on the bar graph. Progress bar will update every few seconds. Check to ensure proper update progress. Update will occur until 100% is reached on the bar graph.
- 5. Turn the ignition key OFF for 10 seconds, place it back in the ON position and then click **OK** to continue according to Information displayed on the screen.
- 6. Click **OK** on the final screen, which indicates update is complete.
- 7. Check if any incidental **Diagnostic Trouble Codes (DTC)** have been created by the update and clear the **DTC (s)** present.
- 8. Start the engine to confirm proper operation of the vehicle.

WARRANTY INFORMATION:

OP CODE	OPERATION	OP TIME
10BA28R0	STEERING COLUMN INSPECTION AND MDPS ECU UPDATE	0.4 M/H

NOTE: If the steering intermediate shaft and U-joint pinch bolts are replaced, submit an additional claim under normal warranty.

NOTE: Submit claim on campaign claim entry screen.

НАПИ	Technical ואס Bulletin	Service	Group Numbe	CAMPAIGN r 10-01-032-1
Subject STEERING COLUMN INTERMEDIATE SHAFT CONNECTIONS INSPECTION (CAMPAIGN 097)		Date	OCTOBER, 2010	
			Model 2011 SONATA (YF)	
CIRCULATE TO:	[] GENERAL MANAGER	[X] PARTS MANA	GER	[X] TECHNICIAN
[X] SERVICE ADVISOR	[X] SERVICE MANAGER	[X] WARRANTY	MGR	[] SALES MANAGER
	2.			
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LISTED ON PAGE IMPORTANT: DEA VEH WHI MAI IMPORTANT: WHI ACC INFO CAM	ALERS MUST PERFORM ICLES IN STOCK BEFO ENEVER AN AFFECTED NTENANCE OR REPAIL EN A VEHICLE ARRIVE CESS HYUNDAI MOTOF ORMATION" SCREEN W	M THIS CAMPA DRE RETAIL DE D VEHICLE IS IN R. S AT THE SER AMERICA'S " VIA WEBDCS TO	IGN ON ELIVER N THE S VICE D WARR/ D IDEN	RT NUMBERS I ALL AFFECTED Y AND SHOP FOR ANY EPARTMENT, ANTY VEHICLE TIFY OPEN

This bulletin provides the recall Campaign 097 procedure for inspecting to ensure that the steering column and the upper intermediate shaft universal joint (U joint), and the steering pinion splined shaft and the lower intermediate shaft U joint are properly connected and that both attaching bolts are tightened to the specified torque.



Additionally, a procedure is provided to update the MDPS software.

VEHICLES AFFECTED:

Model: 2011MY Sonata (YF) 2.4L

Production Date Range: December 11, 2009 through September 10, 2010

VIN Range: 5NPEC4AC6BH000216 ~ 5NPEB4AC8BH151446

PARTS REQUIRED:

PART	FIGURE	REMARK
White paint pen Examples: - Markal Pro-Line HP 96960 - White - Other white touch up paint pens such as 00284-02011JR (YF Sonata White Pearl)	FRO-LINE HP ENTER	Mark the steering shaft U-joint pinch bolt heads (upper and lower) after inspection. For information on local parts availability for Markal paint pens visit: http://www.markal.com
Steering column inter- mediate shaft P/N: 56400-3Q000	(1)	Inspect the threads in the upper and lower U- joints for damage.
Bolt, upper intermediate shaft universal joint. P/N: 56415-3Q000		Inspect for damage and torque to spec: 39.8~47.0 lb-ft
Bolt, lower intermediate shaft universal joint. P/N: 56415-3W000 (with thread locking com- pound).		Inspect for damage and torque to spec: 23.9~27.5 lb-ft



STEERING COLUMN INSPECTION PROCEDURE - STEERING COLUMN TO U-JOINT

(UPPER END OF STEERING INTERMEDIATE SHAFT)

- 1. Inspect all 4 U-joint bearing caps. Turn the steering wheel to visually access them. Ensure they are properly fixed in the yoke by the four indentations. If the caps are loose, replace the steering intermediate shaft assembly.
- NOTE: If the shaft is replaced, submit a claim (in addition to the campaign claim) under normal warranty.
- 2. Visually check that the steering column and the U joint are properly connected as shown in the picture on the right.
- NOTE: Look to verify that the end of the steering shaft protrudes about 1/8" into the void of the U-joint (see image). It is not seated properly if it does not protrude slightly.







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3. If the steering column and the U joint are improperly connected as shown in the picture on the right, re-connect the U joint to the steering column according to the steps below. If properly connected, go to step 8.	INCORRECT B
NOTE: The steering column-to-U joint bolt (A) must be fastened through the groove (B) in the end of the steering column.	
 Remove the steering column-to-U joint bolt. 	
 Inspect the bolt for damage/ stripping/cross-threading. Inspect the corresponding threads in the U-joint. Replace both if damage is found. 	
NOTE: If the bolt and intermediate shaft are replaced, submit a claim (in addition to the campaign claim) under normal warranty.	

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 7. Insert the steering column-to-U joint bolt into the bolt hole and check that the bolt passes through the groove. 8. Torque the steering column-to-U joint bolt to 39.8~47.0 lb-ft, (53.9~63.7 N-m, 5.5~6.5 kgf-m) with a torque wrench. 	 Pull the U joint up until the bolt hole in the U joint is aligned with the groove in the end of the steering column. 	
8. Torque the steering column-to-U joint bolt to 39.8~47.0 lb-ft, (53.9~63.7 N-m, 5.5~6.5 kgf-m) with a torque wrench.	7. Insert the steering column-to-U joint bolt into the bolt hole and check that the bolt passes through the groove.	
	 Torque the steering column-to-U joint bolt to 39.8~47.0 lb-ft, (53.9~63.7 N-m, 5.5~6.5 kgf-m) with a torque wrench. 	

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9. Mark the bolt head with a white paint pen to complete inspection procedure.



STEERING COLUMN INSPECTION PROCEDURE - STEERING PINION SPLINED SHAFT TO U-JOINT

(LOWER END OF STEERING INTERMEDIATE SHAFT)

- 1. Pull back carpet to access lower end of steering intermediate shaft.
- 2. Inspect all 4 U-joint bearing caps. Turn the steering wheel to visually access them. Ensure they are properly fixed in the yoke by the four indentations. If the caps are loose, replace the steering intermediate shaft assembly.
- NOTE: If the shaft is replaced, submit a claim (in addition to the campaign claim) under normal warranty.





- 3. Visually check that the steering pinion splined shaft and the U joint are properly connected as shown in the picture on the right.
- NOTE: Look to verify that the end of the splined shaft protrudes about 1/4" into the void of the U-joint (see image). It is not seated properly if it does not protrude slightly.



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 4. If the splined shaft and the U joint are improperly connected as shown in the picture on the right, re-connect the U joint to the steering column according to the below steps. If properly connected, go to step 9. NOTE: The steering pinion splined shaft-to-U joint bolt must be factored through the groups. 	INCORRECT
in the end of the splined shaft.	
 Remove the steering column-to-U joint bolt. 	
 Inspect the bolt for damage/ stripping/cross-threading. Inspect the corresponding threads in the U-joint. Replace both if damage is found. 	
NOTE: If the bolt and intermediate shaft are replaced, submit a claim (in addition to the campaign claim) under normal warranty.	

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SERVICE PROCEDURE - MDPS SOFTWARE UPDATE

NOTE: To verify the vehicle is affected, be sure to check the version of the MDPS ECU ROM ID with reference to the table below before attempting to update the MDPS ECU.

MDPS ECU ROM ID TABLE

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MODEL	STEERING COLUMN P/N	ROM ID	
		PREVIOUS	NEW
2011 Sonata (YFA 2.4L)	56310-3Q200	4YFH0911	4YFJ1008
	56310-3Q400	4YFH0912	

CAUTION: During MDPS ECU update:

- 1. Make sure the vehicle's battery has reasonable charge by connecting a power supply to the vehicle's battery.
- 2. Turn off all lamps (do not leave head lamp switch in auto mode) and all accessories (including heater, A/C, blower, radio, seat warmer, defroster, etc.) to prevent battery discharge during the update.
- 3. Perform update with the ignition switch in the ON position.
- 4. Be careful not to disconnect any cables connected to the vehicle or scan tool during update.
- 5. Do not start the engine during update.
- 6. Do not turn off the ignition switch during update.

GDS Installation Procedure



- 1. Connect a power supply to the vehicle's battery to ensure adequate voltage during the update.
- 2. Connect the power supply cable to the diagnostic terminal.
- NOTE: If attempting to perform the update with the power supply cable disconnected from the diagnostic terminal, make certain that the diagnostic terminal is charged enough for the update. If not, the update may fail in progress. Therefore, it is strongly recommended to connect the power supply cable to the diagnostic terminal during the update procedure.
- 3. Connect the USB cable between the VCI and the diagnostic terminal.
- NOTE: When performing the update using the GDS, wireless communication between the VCI and the diagnostic terminal is NOT available. Therefore, be sure to connect the USB cable between the VCI and the diagnostic terminal.
- 4. Connect the 16-pin DLC cable from the VCI into the vehicle's 16-pin connector under the driver side instrument panel.
- Turn on the VCI and diagnostic terminal with the ignition key in the ON position. If equipped with button engine start system, push the engine start button twice WITHOUT depressing the brake pedal.

CAUTION: Do not start the engine.

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AUTOMATIC UPDATE PROCEDURE

- 1. Choose VIN or ECU Update on the initial screen.
- 2. Enter the vehicle information by pressing the **VIN Auto Detect** button, entering the vehicle's VIN or selecting the vehicle model, model year, engine/fuel type and **EPS** as the system and then click **OK**.

GDS VIN Search	Searc	n Auto VIN	Clear Previous Vehicle
SON	ATA(YF)	2011	G 2.4 GDI
System	EP5		_
	Select System		Selected System
		EPS	Motor Driven Power Steering
Gr	oup		Symptom
Fault Co	de Searching	ок	Cancel

- 3. Select **ECU Update** on the initial screen after entering the vehicle information.
- 4. Select Auto Mode then EPS in the left ECU Update column.
- 5. Read **Preparation** and click **OK**.
- 6. The GDS will read the vehicle's ROM ID.
- 7. After the Current ROM ID is displayed, select the Update Event, "207.YFA MDPS UPDATE."
- 8. After clicking the **Update** button, read Information then click **OK**.
- 9. The vehicle battery voltage is checked to make sure it is at least 12 volts to ensure reliable update results. Click **OK** if the results indicate Voltage is OK.

CAUTION: If voltage is below 12 volts, click Cancel and then connect a power supply to the vehicle's battery to ensure adequate battery charge state for reliable update results.

- 10. Update will begin and the progress of the update will appear on the bar graph. Progress bar will update every few seconds. Check to ensure proper update progress. Update will occur until 100% is reached on the bar graph.
- 11. Turn the ignition key OFF for 10 seconds, place it back in the ON position and then click **OK** to continue according to Information displayed on the screen.
- 12. Click **OK** on the final screen, which indicates update is complete.
- 13. Check <u>all systems</u> for any incidental **Diagnostic Trouble Codes (DTCs).** Clear any **DTC(s)** present.
- 14. Start the engine to confirm proper operation of the vehicle.

MANUAL UPDATE PROCEDURE

- CAUTION: Manual update should be performed only when automatic update fails.
- CAUTION: If automatic update fails, turn the ignition key OFF for about 10 seconds, place it back in the ON position to reset the control unit before performing manual update.
- 1. Within the ECU Update screen, select Manual Mode in the left column, then select Update Event #207. Select the appropriate control unit part number with reference to the ROM ID Information Table and click OK.

* Event	Event List	TSB
Current ROM ID		
Latest ROM ID	4YFJ1008	
CA MODE: 58210 2020	0//00	
/FA MDPS : 56310-3Q20	0/400	
FA MDPS : 56310-3Q20	0/400	

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2. Enter the appropriate password from the table below then click **OK**.

MENU	PASSWORD
YFA MDPS : 56310-3Q200/400	3400

3. The vehicle battery voltage is checked to make sure it is at least 12 volts to ensure reliable update results. Click **OK** if the results indicate Voltage is OK.

CAUTION: If voltage is below 12 volts, click Cancel and then connect a power supply to the vehicle's battery to ensure adequate battery charge state for reliable update results.

- 4. Update will begin and the progress of the update will appear on the bar graph. Progress bar will update every few seconds. Check to ensure proper update progress. Update will occur until 100% is reached on the bar graph.
- 5. Turn the ignition key OFF for 10 seconds, place it back in the ON position and then click **OK** to continue according to Information displayed on the screen.
- 6. Click **OK** on the final screen, which indicates update is complete.
- 7. Check <u>all systems</u> for any incidental **Diagnostic Trouble Codes (DTCs).** Clear any **DTC(s)** present.
- 8. Start the engine to confirm proper operation of the vehicle.

WARRANTY INFORMATION:

OP CODE	OPERATION	OP TIME
10BA28R0	STEERING COLUMN INSPECTION AND MDPS ECU UPDATE	0.4 M/H

NOTE: If the steering intermediate shaft and U-joint pinch bolts are replaced, submit an additional claim under normal warranty.

NOTE: Submit claim on campaign claim entry screen.

MOTOR VEHICLE RECALL

Dear 2011 Sonata Owner:

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

Hyundai has decided that a defect, which relates to motor vehicle safety, exists in certain model year 2011 Hyundai Sonata vehicles produced during the period beginning December 11, 2009 through September 10, 2010. Federal law requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days.

What is the problem?

• The steering wheel and steering column are connected to the steering gear assembly under the vehicle through an intermediate shaft. Universal joints connect the upper end of the intermediate shaft to the steering column and the lower end of the intermediate shaft to the steering gear. Some vehicles may have improperly assembled or loose steering column intermediate shaft universal joint connections. If your vehicle has an improper or loose connection, you may hear noises when steering or notice that the steering feels loose or less responsive. These are indications your vehicle should be serviced. If these signals are undetected or unheeded, the connection between the steering wheel and steering gear may separate. If that happens, you would lose the ability to steer the front wheels, which may increase the risk of a vehicle crash.

What will Hyundai do?

• We are asking you to schedule an appointment as soon as possible to take your vehicle to your Hyundai dealer. The Hyundai dealer will inspect the steering column intermediate shaft universal joint connections for proper assembly and torque. If any deficiencies are found during the inspection, they will be corrected. In addition to inspecting the steering column intermediate shaft universal joint connections, the Hyundai dealer will update the power steering software to ensure that steering wheel vibration or shaking will not occur as a result of a motor driven power steering malfunction. If a power steering malfunction were to occur, manual steering is still operative and an EPS (Electric Power Steering) warning light will illuminate indicating that the power steering is not operating properly.

Both procedures will be performed at no charge to you. Repairs should take less than an hour. When you make an appointment, please confirm if the dealer's schedule will allow the work to be performed while you wait.

What should you do?

• We urge you to call your Hyundai dealer to schedule an appointment to have this work performed as soon as possible.

What if you have other questions?

• If you have any difficulty having this repair performed, we recommend that you call the Hyundai Customer Assistance Center at 1-800-633-5151. If you are still not satisfied that we have remedied this situation without charge, and within a reasonable amount of time, you may wish to write to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE, Washington, D.C. 20590, or call their toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153), or go to http://www.safercar.gov.

We urge your prompt attention to this important safety matter.

Hyundai Motor America

September 21, 2010, Updated October 12, 2010

TO:ALL HYUNDAI DEALER PRINCIPALS/GENERAL MANAGERS: ALL HYUNDAI DEALERSHIP SERVICE MANAGERS: ALL HYUNDAI DEALERSHIP PARTS MANAGERS: ALL HYUNDAI DEALERSHIP SALES MANAGERS:

SUBJECT: Recall Campaign 097 - 2011 MY Sonata Steering Column Intermediate Shaft Connections Inspection - TSB# 10-01-032-1

Hyundai Motor America is conducting a Recall to inspect and confirm that the steering column and the upper intermediate shaft universal joint (U-joint) and the steering pinion splined shaft and the lower intermediate shaft U-joint are properly connected and that both attaching bolts are tightened to the specified torque on certain 2011 Model Year Sonata vehicles. Technical Service Bulletin #10-01-032-1 provides a procedure to conduct this inspection.

Additionally, a procedure is provided in TSB# 10-01-032-1 to update the Motor Driven Power Steering (MDPS) software.

IMPORTANT NOTE: Dealers are required to perform this campaign on all affected vehicles in dealer stock and before retail delivery to the customer.

In order to identify only those vehicles affected by Recall Campaign 097, it will be necessary to access Hyundai Motor America's "Warranty Vehicle Information" screen via WEBDCS before starting the repair. The "Warranty Vehicle Information" screen will identify affected vehicles with an open Recall Campaign 097.

TSB #10-01-032-1, as well as the applicable MDPS software will be available on Hyundai's Website on September 21, 2010. It contains instructions on performing the service and submitting the campaign claim.

Customer notification letters will be mailed in weekly flights starting Thursday, October 14, 2010.

It is IMPORTANT TO SUBMIT A CAMPAIGN CLAIM FOR EACH VEHICLE SERVICED so your dealership can be compensated for your work and Hyundai can maintain accurate records of campaign completions.

LEGAL LIABILITY NOTICE: You are required to keep confidential any and all information and documents provided to you by Hyundai Motor America in the conduct of carrying out work for this recall campaign. Hyundai Motor America dealers may use owner information provided for the campaign only for the purpose of conducting and performing this recall campaign, and for no other purpose.

Hyundai appreciates your cooperation and support. Questions may be directed to your District Parts and Service Manager or Warranty HELPREP line at 1-877-446-2922.

HYUNDAI MOTOR AMERICA

TO: Hyundai Dealership General Managers, Sales Managers, Service Managers, Parts Managers, and Warranty Administrators

FROM: Hyundai Motor America

DATE: Tuesday, September 21, 2010

SUBJECT: Recall Campaign 097 - 2011 MY Sonata Steering Column Intermediate Shaft Connections Inspection - TSB# 10-01-032

Hyundai Motor America is conducting a Recall to inspect and confirm that the steering column and the upper intermediate shaft universal joint (U-joint) and the steering pinion splined shaft and the lower intermediate shaft U-joint are properly connected and that both attaching bolts are tightened to the specified torque on certain 2011 Model Year Sonata vehicles. Technical Service Bulletin #10-01-032 provides a procedure to conduct this inspection.

Additionally, a procedure is provided in TSB# 10-01-032 update the Motor Driven Power Steering (MDPS) software.

IMPORTANT NOTE: Dealers are required to perform this campaign on all affected vehicles in dealer stock before retail delivery to the customer.

In order to identify only those vehicles affected by Recall Campaign 097, it will be necessary to access Hyundai Motor America's "Warranty Vehicle Information" screen via WEBDCS before starting the repair. The "Warranty Vehicle Information" screen will identify affected vehicles with an open Recall Campaign 097.

TSB #10-01-032, as well as the applicable MDPS software, will be available on Hyundai's Website on September 21, 2010. It contains instructions on performing the service and submitting the campaign claim.

Customer notification letters will be mailed in the near future.

It is IMPORTANT TO SUBMIT A CAMPAIGN CLAIM FOR EACH VEHICLE SERVICED so your dealership can be compensated for your work and Hyundai can maintain accurate records of campaign completions.

LEGAL LIABILITY NOTICE: You are required to keep confidential any and all information and documents provided to you by Hyundai Motor America in the conduct of carrying out work for this recall campaign. Hyundai Motor America dealers may use owner information provided for the campaign only for the purpose of conducting and performing this recall campaign, and for no other purpose.

Hyundai appreciates your cooperation and support. Questions may be directed to your District Parts and Service Manager or Warranty HELPREP line at 1-877-446-2922.

HYUNDAI MOTOR AMERICA

TO: Hyundai Dealership General Managers, Sales Managers, Service Managers, Parts Managers, and Warranty Administrators
FROM: Hyundai Motor America
DATE: October 13, 2010
SUBJECT: Recall Campaign 097 - 2011 MY Sonata Steering Column
Intermediate Shaft Connections Inspection - Revised TSB# 10-01-032-1

Hyundai Motor America has published a revised Recall Campaign 097 Technical Service Bulletin #10-01-032-1. The revised Technical Service Bulletin was posted on HyundaiDealer.com on October 13, 2010.

IMPORTANT NOTE: Dealers are required to perform this campaign on all affected vehicles in dealer stock and before retail delivery to the customer.

In order to identify only those vehicles affected by Recall Campaign 097, it will be necessary to access Hyundai Motor America's "Warranty Vehicle Information" screen via WEBDCS before starting the repair. The "Warranty Vehicle Information" screen will identify affected vehicles with an open Recall Campaign 097.

Customer notification letters will be mailed in weekly flights starting Thursday, October 14, 2010.

It is IMPORTANT TO SUBMIT A CAMPAIGN CLAIM FOR EACH VEHICLE SERVICED so your dealership can be compensated for your work and Hyundai can maintain accurate records of campaign completions.

LEGAL LIABILITY NOTICE: You are required to keep confidential any and all information and documents provided to you by Hyundai Motor America in the conduct of carrying out work for this recall campaign. Hyundai Motor America dealers may use owner information provided for the campaign only for the purpose of conducting and performing this recall campaign, and for no other purpose.

Hyundai appreciates your cooperation and support. Questions may be directed to your District Parts and Service Manager or Warranty HELPREP line at 1-877-446-2922.

HYUNDAI MOTOR AMERICA

SERVICE ALERT

TO: Svc Managers, Parts Managers, Wrty. Administrator

FROM: Hyundai Motor America

ALERT TITLE: Recall Campaign 097 - TSB 10-01-XXX

POSTING DATE: September 21, 2010

ALERT TYPE: Service Campaign

TSB#: TSB# 10-01-032

ALERT MESSAGE: Recall Campaign 097 - TSB #10-01-032 - available on HyundaiService.com

Hyundai Motor America is conducting a Recall to inspect and confirm that the steering column and the upper intermediate shaft universal joint (U-joint) and the steering pinion splined shaft and the lower intermediate shaft U-joint are properly connected and that both attaching bolts are tightened to the specified torque on certain 2011 Model Year Sonata vehicles. Technical Service Bulletin #10-01-032 provides a procedure to conduct this inspection.

Additionally, a procedure is provided in TSB# 10-01-032 to update the Motor Driven Power Steering (MDPS) software.

PARTS ORDER INSTRUCTIONS: 2 paint tubes shipped to every dealer the week of September 20, 2010. Additional information obtaining the paint tubes can be found on TSB #10-01-032 (page 2 of 15).

SERVICE PROCEDURE: TSB# 10-01-032 posted September 21, 2010. Applicable software posted September 21, 2010.

IMPORTANT NOTE: Dealers are required to perform this campaign on all affected vehicles in dealer stock or before retail delivery to the customer.

PE10-035 HYUNDAI – KIA 10-27-2010 ATTACHMENT E Quality Information Report
HYUNDAI		QU	ality F	' INFORMA REPORT	(CONFIDENTIAL					
Model Code	Subject Cod	le*	Sev	erity Code		HMA Report Number	IA Report Number				
YF	CHASSIS		10			QAYF-C-100319					
Creation date/time/u	ser:	Analyst: '	nalyst: * Co-analyst			Modified date/time/us	er:				
03/15/2010 06:55:28 Pl Christopher Hu	M by	Christophe	er Hu			03/15/2010 05:55:28 PN	l by				
Distributor *	Country*		Vend	or Info	Causa	al part No	Attachments				
HMA	USA				56400)	Na				
Model *	Engine or Transmissio	on #*	Lot #		Produ	uction Date* (MM/DD/YY)					
SONATA	5NPEC4AC6E	BH	01/26			/10	Photo				
VIN*	Mileage*		Repa (MM/D	ir Date D/YY)	Deliv	ery Date*. (MM/DD/YY)	Part				
5NPEC4AC6BH	234		03/08	/10	03/06	/10	U Other				
Subject *											
[A] YF Sonata Steering	Column Loose	(EARLY W	ARNIN	IG) - HMMA							
Types of QIR											
General 🛛 Ea	rly Warning	Servicea	bility	Port	[Monitoring VDS					

Condition:

Date:

Report Number : QAYF-C-100319

- Customer statement:
- Technician statement:
- Customer driving habit / operation condition:
- Road condition:
- Weather condition:
- Vehicle speed:
- Number of passengers :
- Region:
- Other comments:

Analysis:

Date:

Report Number : QAYF-C-100319

Corrective Action:

Date:

- Dealer fix:
- Repair procedure:

Comments and Recommendations:

Date:

- Production C/M:
- Port action:
- Field fix:
- TSB:
- Other comment:

Report Number : QAYF-C-100319

Report Number : QAYF-C-100319

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Attachments:

Date:



Report Number : QAYF-C-100319

(QAYF-C-xxxxxx) [A] YF Sonata Steering Column Loose.PPT

Quality Information Report

Subject: [A] YF Sonata Steering Column Loose (EARLY WARNING) - HMMA

Mark "X"	General	Early Warning	Serviceability	Port	IQS	VDS	HSI
QIR Type		Х			Х		

Model Code	Subject Code	Severity	Report Number
(YF) Sonata	Chassis	10	QAYF-C-xxxxxx
VIN	Prod Date	Repair Date	Nature Code
5NPEC4AC6BH	01/26/10	03/08/10	N33
Causal Part # (1 st 5)	Delivery Date	Mileage	Cause Code
56400	03/06/10	234	C29

1. Issue Description	3. Data A	nalysis		
•Customer stated steering is loose.	Suspect Prod Date Range		N/A	
 Technician found that the intermediate shaft universal joint had separated. Dealer to replace intermediate shaft to repair. 	 1 warranty claims for this conditi 2 Techline cases: Case 1: This one. Case 2: Customer compla loose bolt at intermediate share 	on. int of no naft U-jo	oise; technician dis vint.	scovers
2. Part Analysis				
 Dealer technician found intermediate shaft had separated from the base of the steering column. This condition completely disables the ability to steer. 				
	4. HMA R	equest		
	 HMA requests HMMA to investig tightening process at the factory for intermediate shaft U-joint bolt. HMMA to provide countermeasur implementation information and data 	jate or ire ate.	HMA Request C/M Part Field Fix TSB Port Campaign Dealer Campaign	YES NO X X X X X X
Item Date Item Date C/100 Cost Tech	line FSE Buybacks IQS Mimic	Prev	Incident Parts Av	ailable
QIR Issued C/M (Claims) (\$/Claim)		QIR	Part # (s)	Qty
Part Sent 0.01 \$384 2 OIS Received 01 (\$384) 2	1 0		56400-3Q000	1
*Current MY data ONLY		_		

Hyundai Motor America

CONFIDENTIAL

PE10-035 HYUNDAI – KIA 10-27-2010 ATTACHMENT K Parts Supplier Information

ATTACHMENT K Hyundai's Response to PE10-035, NVS-213kmb

PART NO.	COMMODITY	MANUFACTURER	PERSON IN CHARGE	PHONE NO.	ADDRESS
56400 3Q000	U/JOINT ASSY	Namyang Industry	Lee, Gyu Hwan Manager	031-494-2222	390 Moknae-dong, Danwon-gu, Ansan, Gyeonggi-do, Korea
56415 1C000	PINCH BOLT (M8) (JOINT+Gear box)	Sunil Dyfas	Choi, Gyo Sun	042 520 1754	767-3, KWANGHEIWON-RI, KWANGHEIWON-MYUN,
56415 3W000	PINCH BOLT (M8) (JOINT+Gear box)	Corporation	G/Manager	043-530-1754	JINCHEON-GUN, CHOONGBUK, KOREA
56415 3Q000	PINCH BOLT (M10) (MDPS+U/JOINT)	Youngsin Metal Industrial Co.	Jo, Myung Gil Deputy GM	031-680-8700	593,Manho-Ri,Poseung- Myun,Pyongtack- Si,Kyunggi-Do,Korea

PE10-035 HYUNDAI – KIA 10-27-2010 ATTACHMENT L Torque Values

MOBIS MDPS System Monitoring [MAI] MENU SEARCH MDPS MODEL USER ER	N SERVER] ROR CODE HELP					
MOBIS	MDPS	DATA	SEA	RCH	POWER #1 POWER #2	COLM #1 COLM #2
DATE 2009-11-23 • 01 • 00 • 00 • RESULT PART ALL • ALL •	CONDITION #1 ClientBarcode ▼ DEL yf2.332709.20014	9 V MAIN V CONDITION #2				SEARCH CLEAR EXCEL
	BARCODE		Lina NO	tation	Reference	
Housing	Column Motor	ECU U-Joint		NEXT Ho	using Column	Drive
	VIN					
						▼

MOBIS MDPS System Monitoring [MAIN SERVER] MENU SEARCH MDPS MODEL USER ERROR CODE HELP

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	M	OBIS		M	DPS	DAJ	'A S	E	AF	SC	H	VER #1 POWER #2	COLM #1 COLM #2
	ATE 2009 RESL	-11-23 • 01 • ILT PART • ALL		2009-11-23	• 23 • 29 • 55	CONDITION #							MMAND SEARCH CLEAR EXCEL
					BARCODE				Sta	tion		Reference	
		DATE	Housing	Column	Motor	ECU	U-Joint	Line NO	ок	NEXT	Housing	Column	Drive
	10	2009-11-23 09:56:20	H1A10911160160	Q209110710552	50932020134050	AB001750	U1 0911171058	3	1	450	15.LYF.TA22	DA+NA.LHD.YF	DA+NA.YF.LHD.TA
	11	2009-11-23 09:57:00	H1A10911160114	Q209110710702	50932020143052	AB001754	U1 0911172114	3	1	450	15.LYF.TA22	DA+NA.LHD.YF	DA+NA.YF.LHD.T#
	12	2009-11-23 09:57:40	H1A10911150546	Q209110710832	50932020120056	AB001753	U1 0911172002	3	1	450	15.LYF.TA22	DA+NA.LHD.YF	DA+NA.YF.LHD.T#
	13	2009-11-23 09:59:12	H1A10911160569	Q209110710682	50932020131059	AB001755	U1 0911172031	3	1	450	15.LYF.TA22	DA+NA.LHD.YF	DA+NA.YF.LHD.T/
	14	2009-11-23 10:00:27	H1A10911160136	Q209110710692	50932020133053	AB001751	U1 0911172037	3	1	450	15.LYF.TA22	DA+NA.LHD.YF	DA+NA.YF.LHD.T/
	15	2009-11-23 10:01:15	H1A10911160220	0209110710932			0911172042	3	1	450	15.LYF.1A22		DA+NA,YF,LHD,TA
	17	2009-11-23 10:03:21	H1A10911150579	0209110710642			0911121009	3	1	450	151 VE TA22	DA+NALHD.TF	DA+NA YELHD T4
	18	2009-11-23 10:07:11	H1A10911160163	Q209111211062	50932020130054	AB001741	U1 0911121092	3	1	450	15.LYF.TA22	DA+NA.LHD.YE	DA+NA,YELHD,TA
	19	2009-11-23 10:11:23	H1A10911150569	Q209111110172	50932020110052	AB001738	U1 0911121065	3	1	450	15.LYF.TA22	DA+NA.LHD.YF	DA+NA.YF.LHD.T/
	20	2009-11-23 10:15:24	H1A10911150505	Q209110710962	50932020114051	AB001747	U1 0911091065	3	1	450	15.LYF.TA22	DA+NA.LHD.YF	DA+NA.YF.LHD.TA
	21	2009-11-23 10:17:52	H1A10911160113	Q409111212912	50932020115054	AB001743	U1 0911091066	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
	22	2009-11-23 10:21:35	H1A10911160515	Q409111212902	50932020097053	AB001764	U1 0911091068	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
	23	2009-11-23 10:22:12	H1A10911160081	Q409111212932	50932020109051	AB001752	U1 0911091075	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
	24	2009-11-23 10:23:02	H1A10911160133	Q409111212922	50932020095053	AB001749	U1 0911091074	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
	25	2009-11-23 10:23:43	H1A10911150429	Q409111212942	50932020085052	AB001742	U1 0911091078	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
	26	2009-11-23 10:24:51	H1A10911160138	Q409111212972	50932020112052	AB002224	U1 U911091080	3	1	450	15.LYF.TA22	DA+NELHD.YF	DA+NE.YF.LHD.TA
	27 28	2009-11-2310:25:57	H1A10911160159	0409111212962	50932020107053	AB002258 AB002257	111 0911121084	3	1	450	15.L YF 1A22		DA+NE.TF.LHD.TA
	29	2009-11-23 10:32:06	H1A10911150570	Q409111212832	50932020108051	AB002257	U1 0910011066	3	1	450	15.LYF.TA22	DA+NELHD.YF	DA+NE.YELHD.TA
	30	2009-11-23 10:32:46	H1A10911150517	Q409111212822	50932020105051	AB002223	U1 0910011021	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
	31	2009-11-23 10:42:22	H1A10911150560	Q409111212852	50932020084053	AB002168	U1 0910011048	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
	32	2009-11-23 10:43:01	H1A10911150424	Q409111212862	50932020083051	AB002262	U1 0910011062	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
	33	2009-11-23 10:45:08	H1A10911150100	Q409111212882	50932020104052	AB002278	U1 0910011064	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
	34	2009-11-23 10:46:57	H1A10911140971	Q409111212742	50932020090053	AB002281	U1 0910011081	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
	35	2009-11-23 10:47:39	H1A10911150425	Q409111212752	50932020102055	AB001762	U1 0910011008	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
	36	2009-11-23 10:48:28	H1A10911150510	Q409111212872	50932020080055	AB001748	U1 0910011031	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
I		2000 11 00 10 10 FE		2100111010000	E0000004000E4	AD000010	111 0010011000	· ^		150	101 VE 7400	BA NETURAZE	

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📙 МОВ	IS MDPS	System Monit	oring [N	IAIN SERVER]	
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MOBIS	MDPS	System	Monitoring	[MAIN	SERVER]	

MENU SEARCH MDPS MODEL USER ERROR CODE HELP

HYUNDAI POWER#1 POWER#2 MDPS DATA SEARCH COLM #2 COLM #1 MOBIS ON ON DATE SERVER DATABASE STATION COMMAND --STATION 450 - 08 - 29 - 59 -TRACE -2009-10-01 MAIN SEARCH RESULT PART **CONDITION #1 CONDITION #2** CONDITION #3 CLEAR • DEL - DEL - DEL ClientBarcode • + ALL ALL EXCEL YF4.334209.20115 BARCODE Station Reference DATE Line NO Column Motor ECU U-Joint OK NEXT Housing Column Housing Drive 1 2009-12-08 10:19:28 H1A10912030916 Q409120720182 50933820140052 AB009787 U1 0912071055 900 15.LYF.TA22 DA+NE.LHD.YF DA+NE.YF.LHD.T/ VIN 🏦 시작 🔞 🥭 A 🥩 🔊 🎽 🎥 🔽 오전 8:18 MOBIS MDPS Sy... 🧏 Microsoft SQL Server...

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N	OBIS		M1	DPS	DAI	'A S	E.	AF	SC	H	N ON	COLM #1 COLM #2 ON ON
DATE SERVER DATABASE STATION 2009-12-07 20 30 00 ~ 2009-12-09 08 29 59 MAIN TRACE STATION 440 SEARCH RESULT PART CONDITION #1 CONDITION #2 CONDITION #3 CLEAR ALL Image: Condition #2 Image: Condition #3 Image: Condition #3 Image: Clear Excel												
	DATE			BARCODE			Line NO	Ste	ition		Reference	_
	DAIL	Housing	Column	Motor	ECU	U-Joint		ок	NEXT	Housing	Column	Drive
158	2009-12-08 10:12:24	H1A10912030874	Q409120720132	50933920249049	AB009023	U1 0912071025	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
159	2009-12-08 10:13:21	H1A10912030947	Q409120720122	50933820125053	AB009019	U1 0912071045	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
160	2009-12-08 10:14:08	H1A10912030873	Q409120720142	50933820137055	AB009026	U1 0912071009	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
161	2009-12-08 10:14:51	H1A10912030960	Q409120720152	50933820122053	AB009025	U1 0912071016	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
162	2009-12-08 10:16:09	H1A10912030871	Q409120720072	50933820136055	AB009784	U1 0912071015	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
163	2009-12-08 10:17:06	H1A10912020271	Q409120711172	50933920258053	AB009028	U1 0912071012	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
164	2009-12-08 10:18:30	H1A10912030916	Q409120720182	50933820140052	AB009787	U1 0912071055	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
165	2009-12-08 10:19:26	H1A10912030885	Q409120720032	50933820135054	AB009777	U1 0912071008	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
166	2009-12-08 10:21:19	H1A10912030971	Q409120720212	50933920254051	AB009017	U1 0912071042	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
167	2009-12-08 10:22:10	H1A10912030883	Q409120720042	5093382)71059	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
168	2009-12-08 10:23:01	H1A10912030961	Q409120720052	5093382)71058	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
169	2009-12-08 10:23:44	H1A10912030870	Q409120720082	5093382)71023	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE:YF:LHD.TA
170	2009-12-08 10:24:26	H1A10912030878	Q409120720062	50933820115053	AB009792	U1 0912071047	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
171	2009-12-08 10:25:08	H1A10912030910	Q409120720092	50933820091052	AB009795	U1 0912071017	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
172	2009-12-08 10:25:57	H1A10912030880	Q409120720102	50933820132055	AB009796	U1 0912071053	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
173	2009-12-08 10:26:47	H1A10912030913	Q409120720112	50933820117053	AB009798	U1 0912071048	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
174	2009-12-08 10:27:32	H1A10912030782	Q409120721272	50933820110053	AB009785	U1 0912071020	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
175	2009-12-08 10:28:32	H1A10912030879	Q409120721282	50933820107052	AB009800	01 0912071060	3	1	450	15.LYF.TA22	DA+NE.LHD.YF	DA+NE.YF.LHD.TA
176	2009-12-08 10:43:24	H1A10912030884	Q409120721262	50933820088053	AB009803	01 0912071044	3	1	450	15.LYF.1A22	DA+NELHD.YF	DA+NE.YF.LHD.TA
177	2009-12-08 10:44:10	H1A10912030774	Q409120721232	50933820129048	AB009805	01 0912071021	3	1	450	15.LYF.1A22	DA+NELHD.YF	DA+NE.YF.LHD.TA
178	2009-12-08 10:47:43	HTA10912030778	0409120720012	50933820105052	AB009808	01 0912071049	3	1	450	15.LYF.1A22	DA+NELHD.YF	DA+NE.YF.LHD.TA
179	2009-12-08 10:48:26	H1A10912030867	Q409120710022	50933820128052	AB009793	01 0912071013	3	1	450	15.LYF.1A22	DA+NELHD.YF	DAHNELYF LHD.TA
180	2009-12-08 10:49:11	H1A10912030732	0409120710032	50933820103055	AB009810	01 0912071004	3	1	450	15.LYF.1A22	DA+NELHD.YF	DA+NE.YF.LHD.TA
181	2009-12-08 10:51:34	HTA10912030675	0409120720162	50933620114048	AB009809	01 0912061292	3	1	450	15.LYF.1A22	DA+NELHD.YF	DAHNELYF LHD.TA
182	2009-12-08 10:53:17	HTA10912020435	0409120721312	50935620102053	AD009814	U1 0912071280	3	1	450	15.LYF.1A22	DA+NELHD.YF	DA+NE.YF.LHU.TA
103	2003-12-00 10.54:06	H1A10912030466	0409120721322	50833020077051	AD003012	14 0912071035	3	1	450	15.LYF.1A22		DA+NE VELHD TA
104	2003-12-00 10.34.59	111A10912030/15	0403120721292	5000000000054	AD003010	01 0312071001	3		400	ISLIF.IAZZ	DATNELLID.YF	

MOBIS MDPS Sy... 🧏 Microsoft SQL Server... 🦉 YF4,334209,20115_1,J,...

HYUNDAI	0	BIS	•			M	DF	S	DA	AT.	A	SE	AF	SC	H	POWER #1	ON N	COLM #1 COLM #
DATE 2009 RESU	-12-07 JLT	▼ 20 PAF	• 30 • RT _L •		~ 200	9-12-09 ON #1	• 08 • •	29 - 59		BERVER MAIN				ST. ST.	ATION FATION	440 💌		MMAND SEARCH CLEAR EXCEL
						[U-J	oint				#	1					
	Drive	Machine Time	ld Operator	Pallet	Error Code	A/S	BackWard	L/R Check		Tor	que			An	gle			
							Check		ок	MIIN	VAL	MAX	ок	MIN	VAL	MAX	#1	#2
158	3	4	0	22	-1	0	0	1	1	53.9	58.9	63.7	1	50	106.4	300		
160	3	24.0	0	17	-1	0	0	1	1	53.9	58.9	63.7	1	50	157.7	300		
161	3	22.7	0	29	-1	0	0	1	1	53.9	58.8	63.7	1	50	73.2	300		
162	3	7	0	16	-1	0	0	1	1	53.9	59.2	63.7	1	50	83.6	300		_
163	3	22.3	0	37	-1	0	0	1	1				1		150.0			
164	3	1.8	0	9	-1	0	0	1	1	53.9	58.8	63.7	1	50	152.4	300		
165	3	22.4	0	20	-1	0		1	1	53.9	59.1	63.7	1	50	69.6	300		
166	3	22.2	0					1	1	53.9	59.1	63.7	1	50	82.6	300		
168	3	22.7	0	V 11				1	1	53.9	59	63.7	1	50	78.5	300		
169	3	22.1	0	13	-1	0	0	1	1	53.9	58.8	63.7	1	50	168.2	300		
170	3	35.9	0	30	-1	0	0	1	1	53.9	58.9	63.7	1	50	142.8	300		
171	3	22	0	1	-1	0	0	1	1	53.9	59.1	63.7	1	50	70.6	300		
172	3	34.8	0	23	-1	0	0	1	1	53.9	58.8	63.7	1	50	75	300		
173	3	22.2	0	28	-1	0	0	1	1	53.9	58.9	63.7	1	50	157.7	300		
174	3	8.9	0	39	-1	0	0	1	1	53.9	59	63.7	1	50	78.2	300		
175	3	32.4	U	32	-1	0	0	1	1	53.9	59	63.7	1	50	142.3	300		
176	3	22.6	о Д	14	-1	0	0	1	1	53.9	58.9	63.7	1	50	90.7 81.4	300		
178	3	1.7	0	5	-1	0	0	1	1	53.9	59.1	63.7	1	50	74.8	300		
179	3	1.7	0	4	-1	0	0	1	1	53.9	59.2	63.7	1	50	65.5	300		
180	3	1.7	0	40	-1	0	0	1	1	53.9	58.8	63.7	1	50	182	300		
181	3	17.7	0	2	-1	0	0	1	1	53.9	59	63.7	1	50	162.8	300		
182	3	7.7	0	25	-1	0	0	1	1	53.9	59.3	63.7	1	50	77.3	300		
183	3	18.5	0	19	-1	0	0	1	1	53.9	58.9	63.7	1	50	95.2	300		
184	3	22.3	0	11	-1	0	0	1	1	53.9	58.8	63.7	1	50	180.5	300		
1	-		-	~~		-				50.0	50.4			5	~			•

PE10-035 HYUNDAI – KIA 10-27-2010 ATTACHMENT M Repair Histories

10/18/2010 Hyundai Motor America Warranty Vehicle Information -----< VEHICLE CLAIM HISTORY >------Dealer Claim Repair Repair Operation Code Number Order Date Mileage Description _____ -----IL061 89188E 089188 6/18/2010 3,400 SERVICE LOAN CAR CLAIM IL061 89188B 089188 6/17/2010 3,400 W/SHIELD GLASS UPPER MLDG IL061 89188C 089188 6/17/2010 3,400 LEVER ASSY-COMPLETE IL061 89188D 089188 6/17/2010 3,400 WHEEL ALIGNMENT (4 WHEEL)-ADJUS IL061 085029 085029 3/09/2010 568 LATCH ASSY-FRONT DOOR BOTH IL061 85029A 085029 3/09/2010 568 ECM UPDATE P0605/2105/2110 IL061 85029B 085029 3/09/2010 568 YF IGNITION WIRING ROUTING IL061 85029C 085029 3/09/2010 568 JOINT AND/OR COUPLING ASSY-UNIV IL061 Q10411 084262 2/18/2010 9 PRE-DELIVERY INSPECTION/SERVICE

VIN#: 5NPEB4AC8BH Sonata (YF) Orig Owner: COLLINGBOURNE, PETER Transmission : Automatic Selling Dealer: IL061 ROSEN HYUNDAI 2011 Wty Strt DT: 2/20/2010 DMV Trnsfr DT: Hyundai Motor America Warranty Vehicle Information 10/18/2010

VIN#: 5NPEC4AC6BHSonata (YF)2011 Wty Strt DT: 3/06/2010Orig Owner: ENDLICH, DOUGLAS EDMV Trnsfr DT:Transmission : AutomaticSelling Dealer: PA065 CONICELLI HYUNDAI