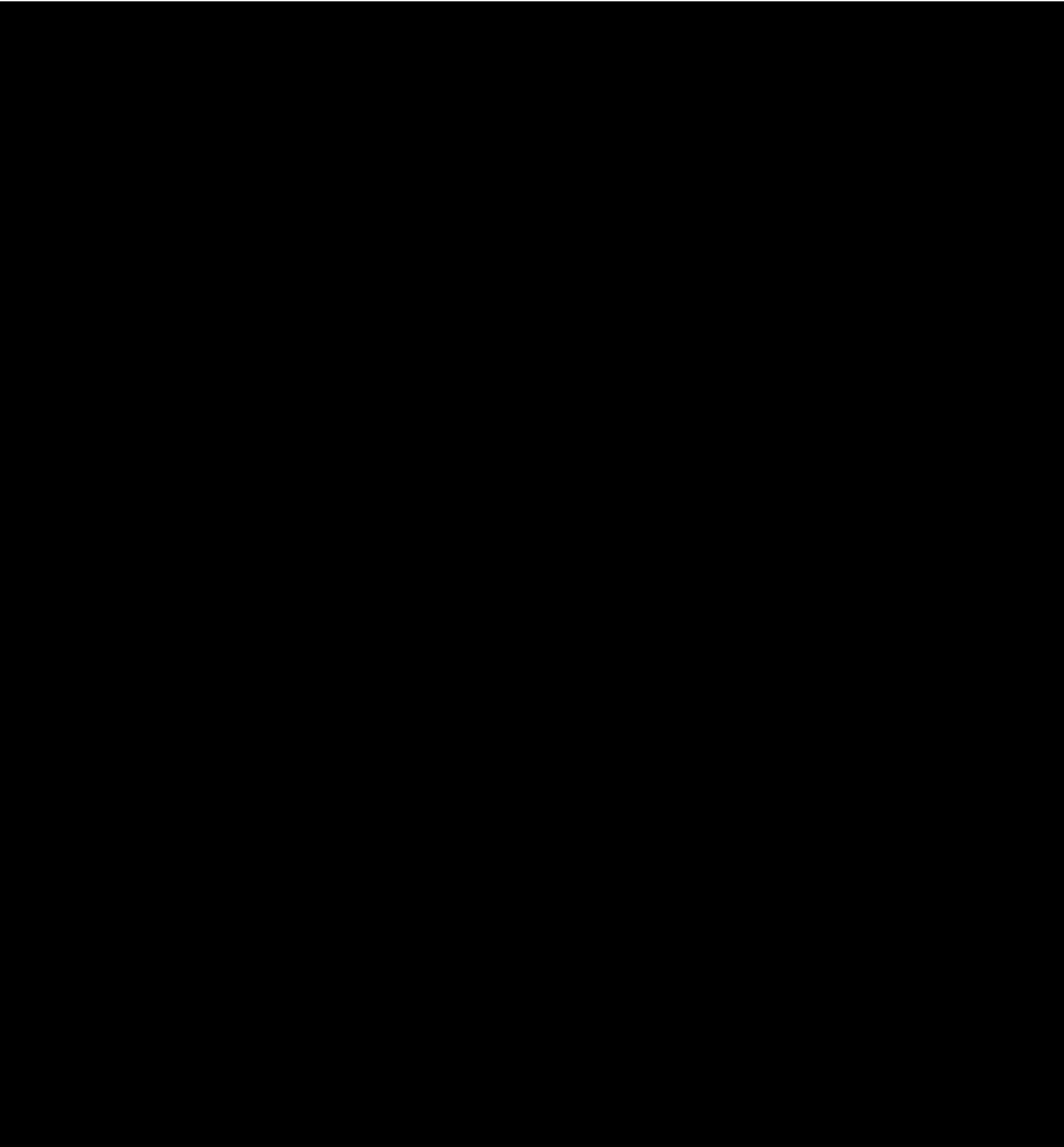
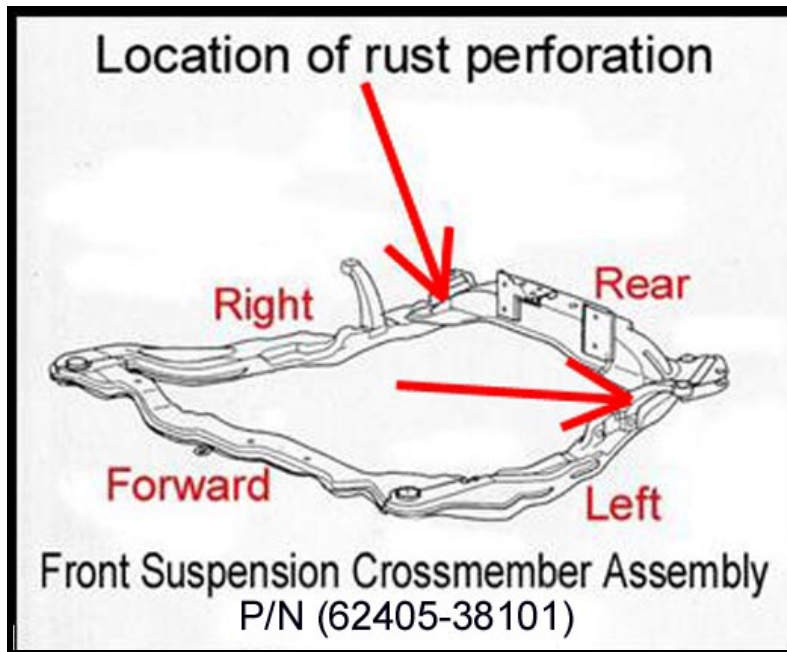


**PE08029/HYUNDAI-KIA
EF 2000 CROSSMEMBER
CORROSION 01**





- Corrosion to right section of crossmember assembly VIN: KMHWF35V6YA



- Crossmember corrosion to both sides. VIN: KMHWF35V6YA [REDACTED]





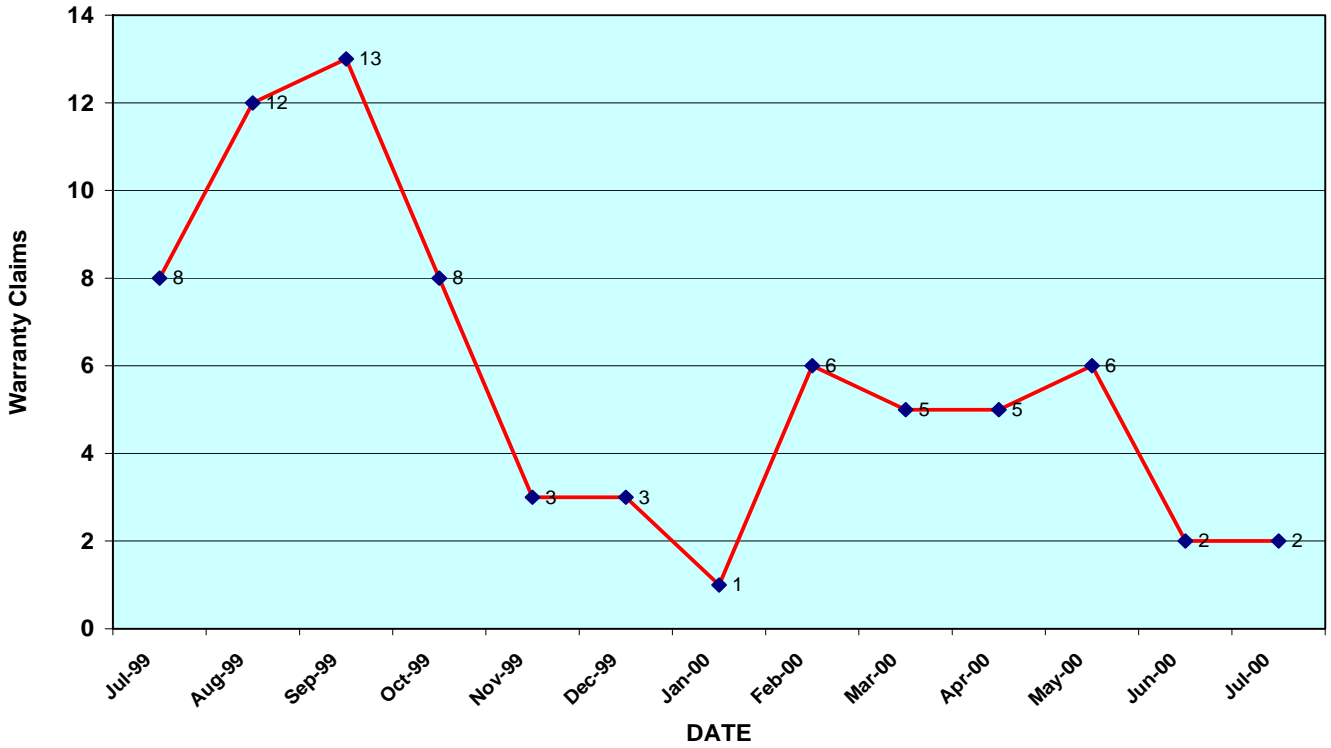
ADDITIONAL VEHICLES WITH SIMILAR CONDITION				
VIN	Production Date	Mileage	Condition	
KMHWF35V6YA	9/06/99	60364	Crossmember corrosion right side.	
KMHWF35V6YA	12/10/99	62432	Crossmember corrosion right side.	
KMHWF35V9YA	10/05/99	54370	Crossmember corrosion both sides.	
KMHWF35V5YA	10/07/99	55000	Crossmember corrosion right side.	
KMHWF35V0YA	9/13/99	104134	Crossmember corrosion right side.	
KMHWF35V9YA	10/20/99	90561	Crossmember corrosion right side.	
KMHWF35V8YA	8/13/99	103533	Crossmember corrosion right side.	
KMHWF35V9YA	7/27/99	93719	Crossmember corrosion right side.	
KMHWF35V1YA	8/25/99	89234	Crossmember corrosion right side.	
KMHWF25S6YA	6/19/99	78214	Crossmember corrosion right side.	
KMHWF35V6YA	10/26/99	87023	Crossmember corrosion both sides.	
KMHWF25S6YA	3/18/00	135429	Crossmember corrosion right side.	
KMHWF35V8YA	8/23/99	62000	Crossmember corrosion both sides.	
KMHWF35V0YA	5/02/00	63466	Crossmember corrosion both sides.	
KMHWF35V1YA	8/24/99	58298	Crossmember corrosion right side.	
KMHWF25S4YA	9/11/99	54016	Crossmember corrosion both sides.	

- Current warranty / goodwill data may not accurately quantify condition.

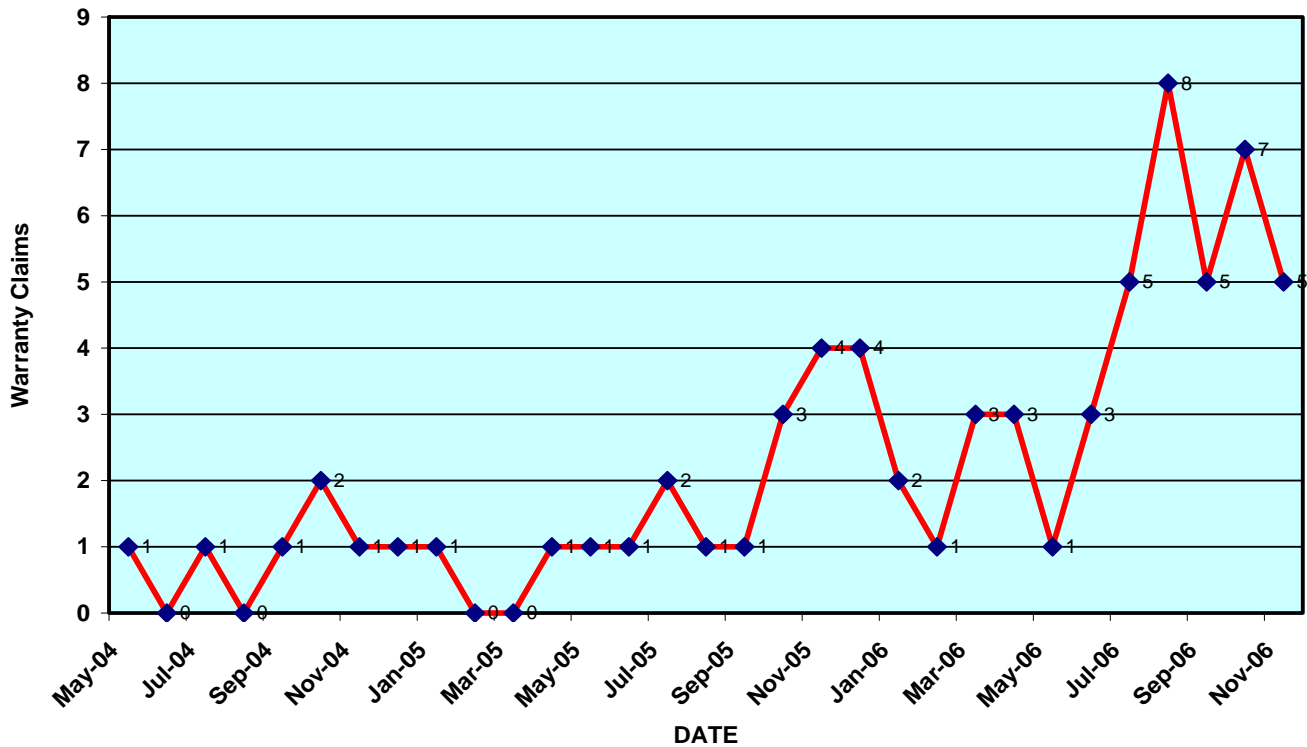
WARRANTY / GOODWILL CLAIM DATA ANALYSIS	
Labor Operation (62410R00) 2000 EF Sonata	
Total Number of Claims	73
With Parts	73

Total Cost	\$ 107,139
Average Cost Per Claim	\$ 1,468
Nature Codes:	%
N29 (Abnormal Noise)	51
N56 (Rust, Corrosion)	10
Cause Codes:	%
C06 (Broken, Split, Torn)	48
C05 (Rusty, Corroded)	23
Mileage Range:	%
0 – 25	0
26 – 6,000	0
6,001 – 12,000	7
12,001 – 18,000	5
18,001 – 24,000	0
24,001 – 30,000	3
30,001 – 36,000	3
36,001 – 48,000	7
48,000 – Over	72
In Service:	%
0 – (PDS)	0
1 – 90	0
91 – 180	0
181 – 270	0
271 – 365	5
366 – 730	0
731 – 1,096	8
1,097 – Over	87

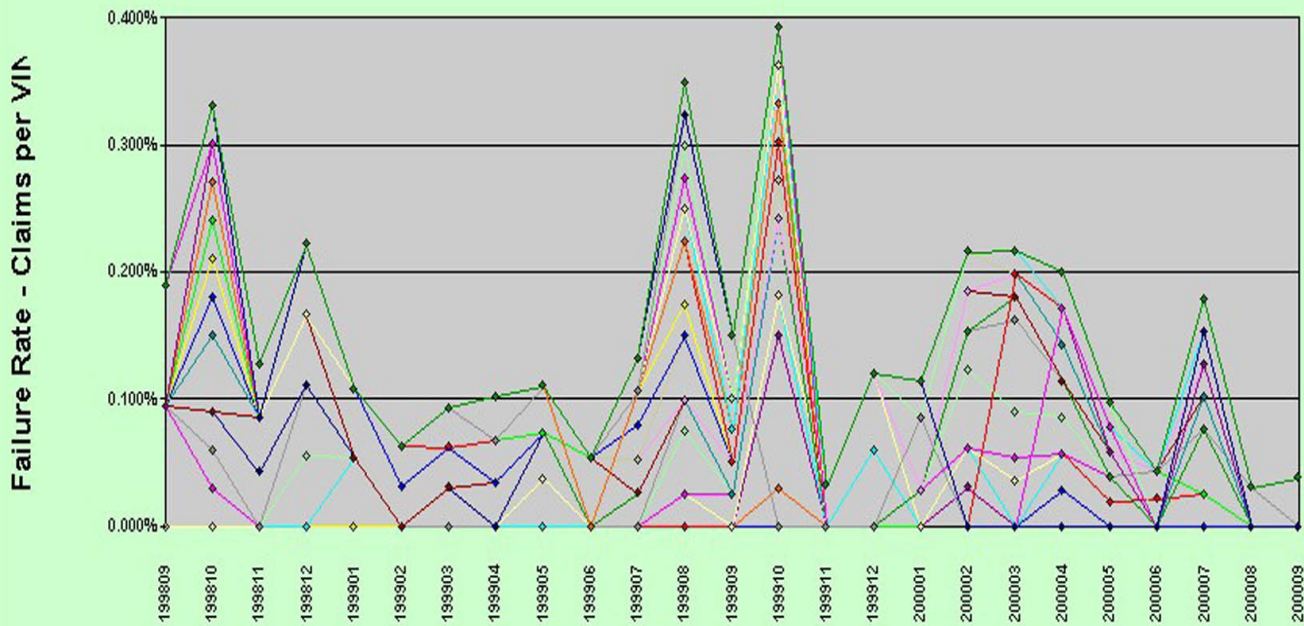
PRODUCTION DATE ANALYSIS



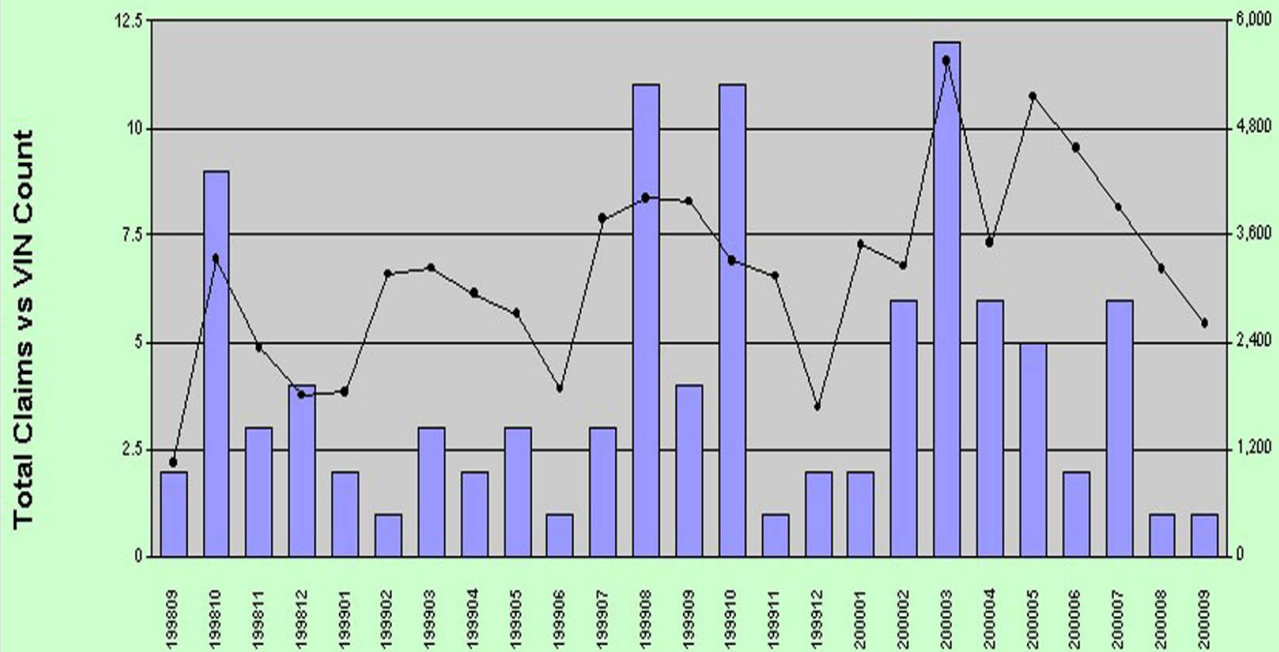
REPAIR TREND ANALYSIS



Op Code Waterfall Chart
Production Range - First 24 Months



Claims by Production Month vs VIN Count



3. Corrective Action:

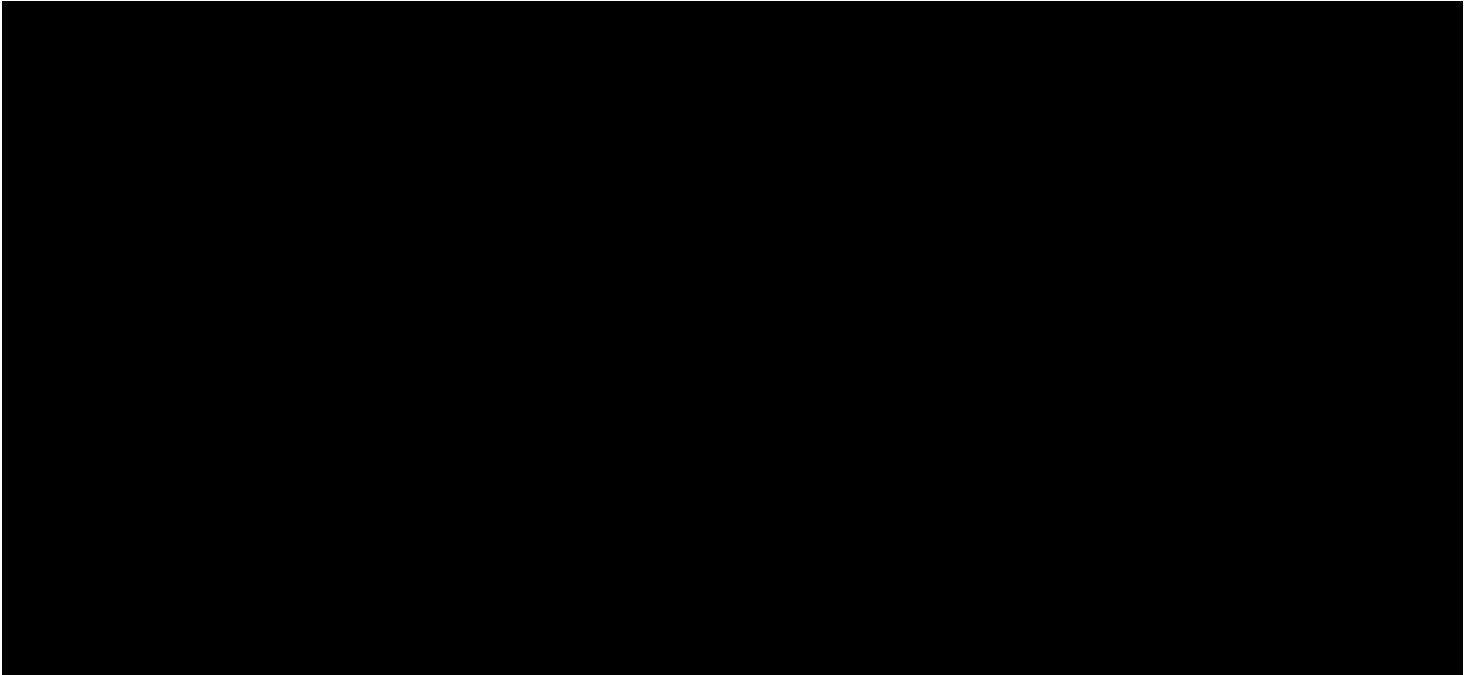
- Replace crossmember assembly P/N (62405-38101).

4. Recommendation:

- HMC should investigate the Crossmember corrosion condition and take necessary corrective action.
- HMC countermeasure of increasing the paint thickness inside the crossmember assembly on 11/20/03 production vehicles may not be an effective solution for those vehicles produced after that date.
- HMA would like to know internal crossmember paint thickness measurements before and after countermeasure.
- Additionally HMA requests HMC to provide an effective countermeasure for vehicles produced prior to the countermeasure date.
- Customers who experience this condition may perceive an image of poor quality, long term durability and technician serviceability.

5. Attachments:

PE08029/HYUNDAI-KIA
QAEF-C-061204



Condition:

Date: 12/15/2006

Report Number :

- Customer states the crossmember is corroded.

Analysis:

Date: 12/15/2006

Report Number :

- Inspection revealed corrosion at the right rear section of the crossmember assembly P/N (62405-38101).

- Corrosion of the crossmember assembly is more evident at the right rear section of the crossmember assembly which may possibly be related to the air conditioning evaporator water dripping onto it.

- However additional incident vehicles have corrosion to the left rear section of the crossmember and or both left and right rear sections.

- Corrosion condition is not limited to the right rear section of the crossmember assembly

- Crossmember corrosion condition may result in the following customer and or servicing dealer complaints.

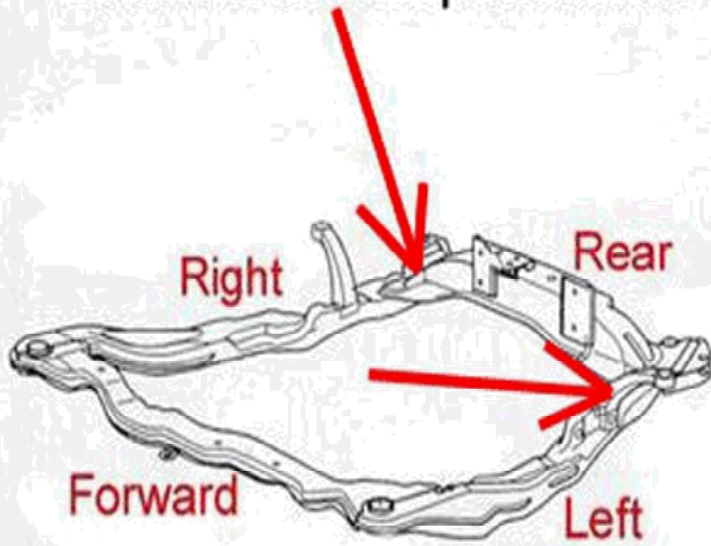
1). Vehicle will not pass State Inspection.

2). Technicians complain that when they are removing the lower control arm assembly to perform a ball joint replacement procedure the forward mount attaching bolts are seized to the fixed nut welded inside the crossmember assembly. When removing the 17mm attaching bolts the fixed nut inside the crossmember assembly separates from the assembly and spin freely.

- Southern, South Central, Central and Eastern regions of the USA represent 92% of the repairs. This is the "snow belt" area which have highly corrosive environments from salt and chloride materials used for snow removal.

- See attached photographs and illustration.

Location of rust perforation



Front Suspension Crossmember Assembly
P/N (62405-38101)





- Corrosion to right section of crossmember assembly VIN: KMHWF35V6YA [REDACTED]



- Crossmember corrosion to both sides. VIN: KMHWF35V6YA [REDACTED]





ADDITIONAL VEHICLES WITH SIMILAR CONDITION

VIN	Production Date	Mileage	Condition
KMHWF35V6YA [REDACTED]	9/06/99	60364	Crossmember corrosion right side.
KMHWF35V6YA [REDACTED]	12/10/99	62432	Crossmember corrosion right side.
KMHWF35V9YA [REDACTED]	10/05/99	54370	Crossmember corrosion both sides.
KMHWF35V5YA [REDACTED]	10/07/99	55000	Crossmember corrosion right side.
KMHWF35V0YA [REDACTED]	9/13/99	104134	Crossmember corrosion right side.
KMHWF35V9YA [REDACTED]	10/20/99	90561	Crossmember corrosion right side.
KMHWF35V8YA [REDACTED]	8/13/99	103533	Crossmember corrosion right side.
KMHWF35V9YA [REDACTED]	7/27/99	93719	Crossmember corrosion right side.
KMHWF35V1YA [REDACTED]	8/25/99	89234	Crossmember corrosion right side.
KMHWF25S6YA [REDACTED]	6/19/99	78214	Crossmember corrosion right side.
KMHWF35V6YA [REDACTED]	10/26/99	87023	Crossmember corrosion both sides.
KMHWF25S6YA [REDACTED]	3/18/00	135429	Crossmember corrosion right side.
		6200	

KMHWF35V8YA [REDACTED]	8/23/99	0	Crossmember corrosion both sides.
KMHWF35V0YA [REDACTED]	5/02/00	6346 6	Crossmember corrosion both sides.
KMHWF35V1YA [REDACTED]	8/24/99	5829 8	Crossmember corrosion right side.
KMHWF25S4YA [REDACTED]	9/11/99	5401 6	Crossmember corrosion both sides.

- Current warranty / goodwill data may not accurately quantify condition.

WARRANTY / GOODWILL CLAIM DATA ANALYSIS

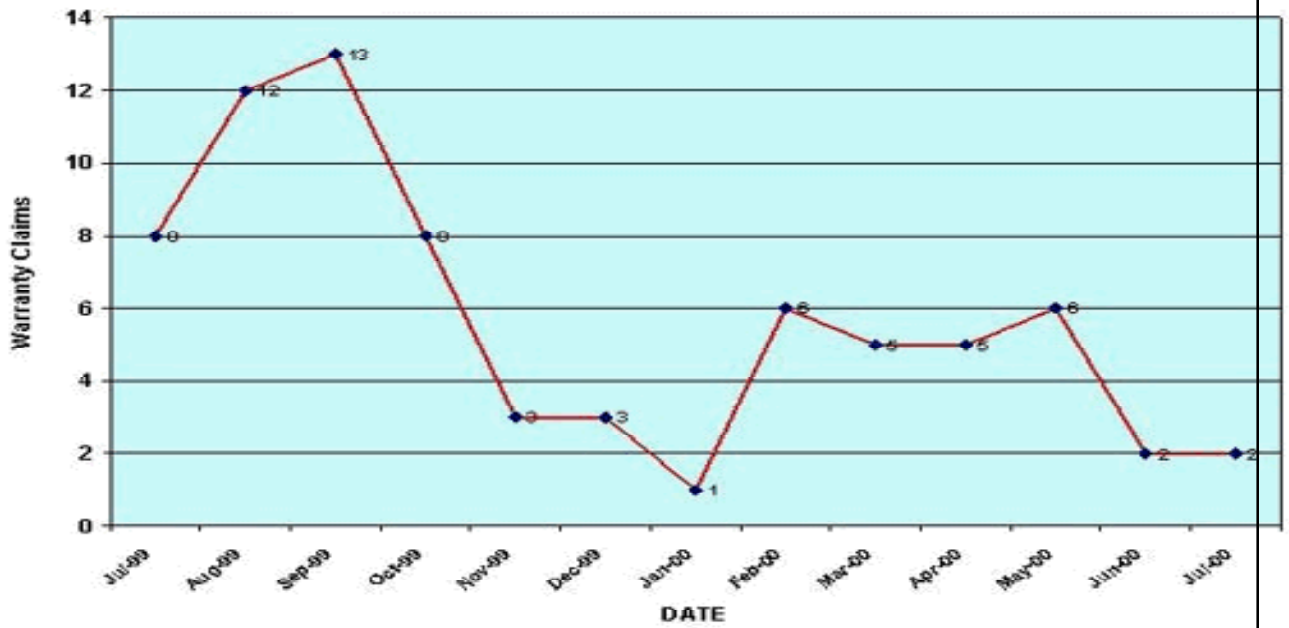
Labor Operation (62410R00)
2000 EF Sonata

Total Number of Claims	73
With Parts	73
Total Cost	\$ 107,139
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36,001 – 48,000	7
48,000 – Over	72
In Service:	%
0 – (PDS)	0
1 – 90	0
91 – 180	0
181 – 270	0
271 – 365	5
366 – 730	0
	8

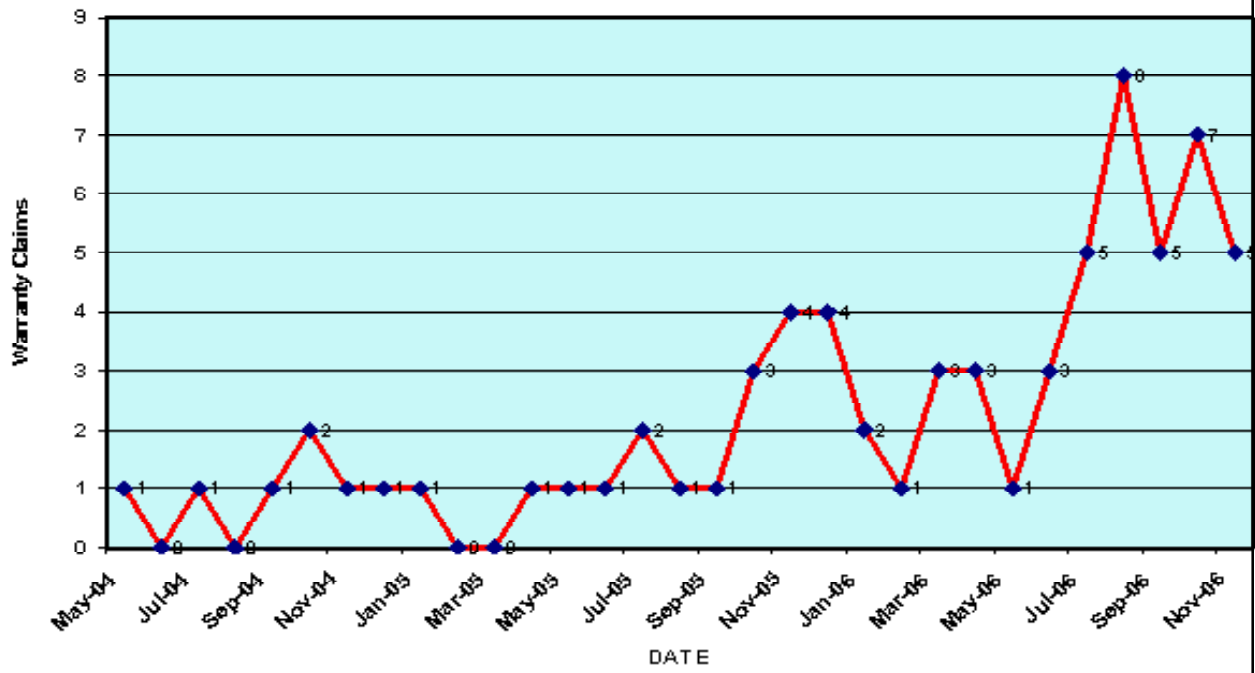
731 – 1,096
1,097 – Over

87

PRODUCTION DATE ANALYSIS

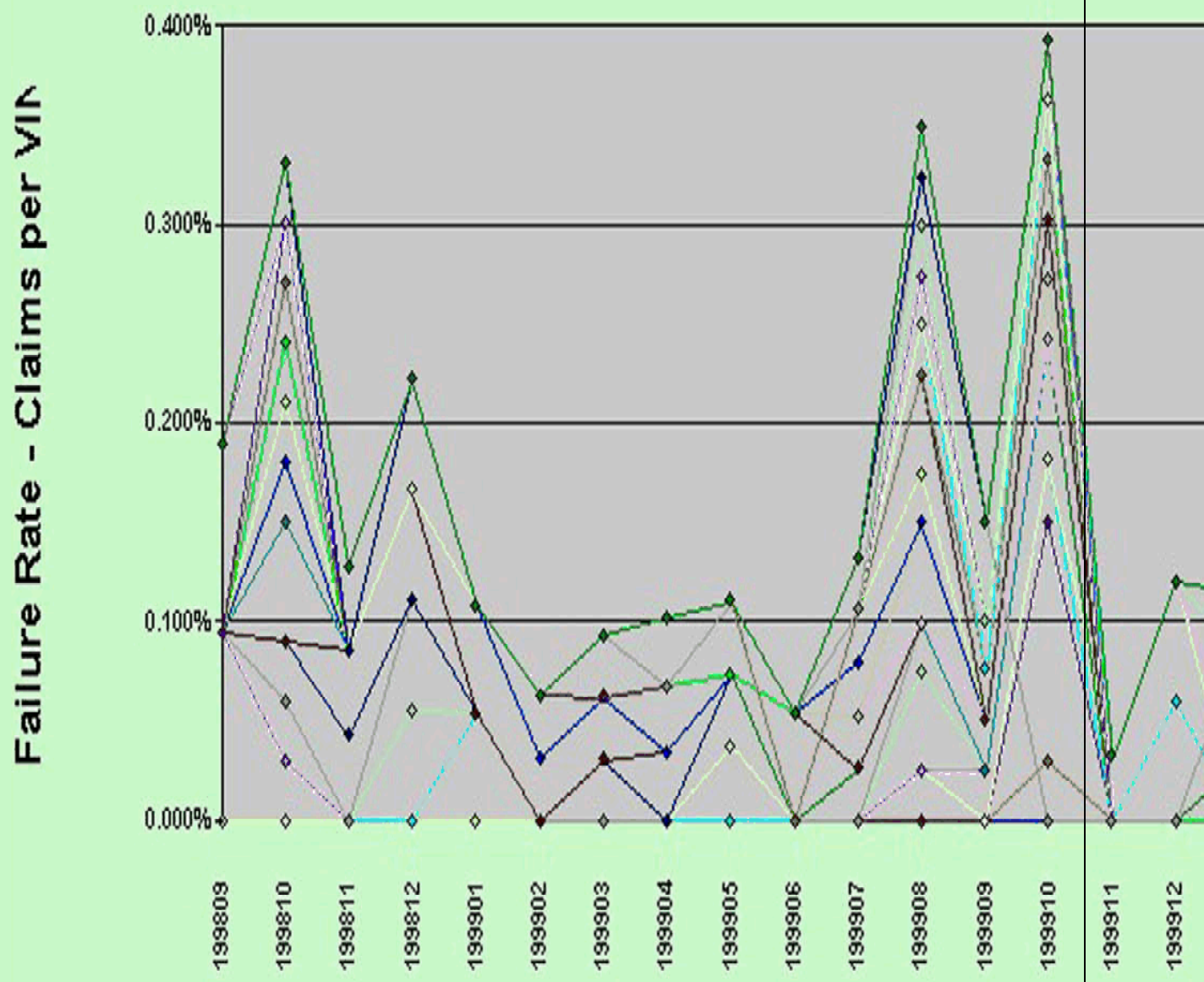


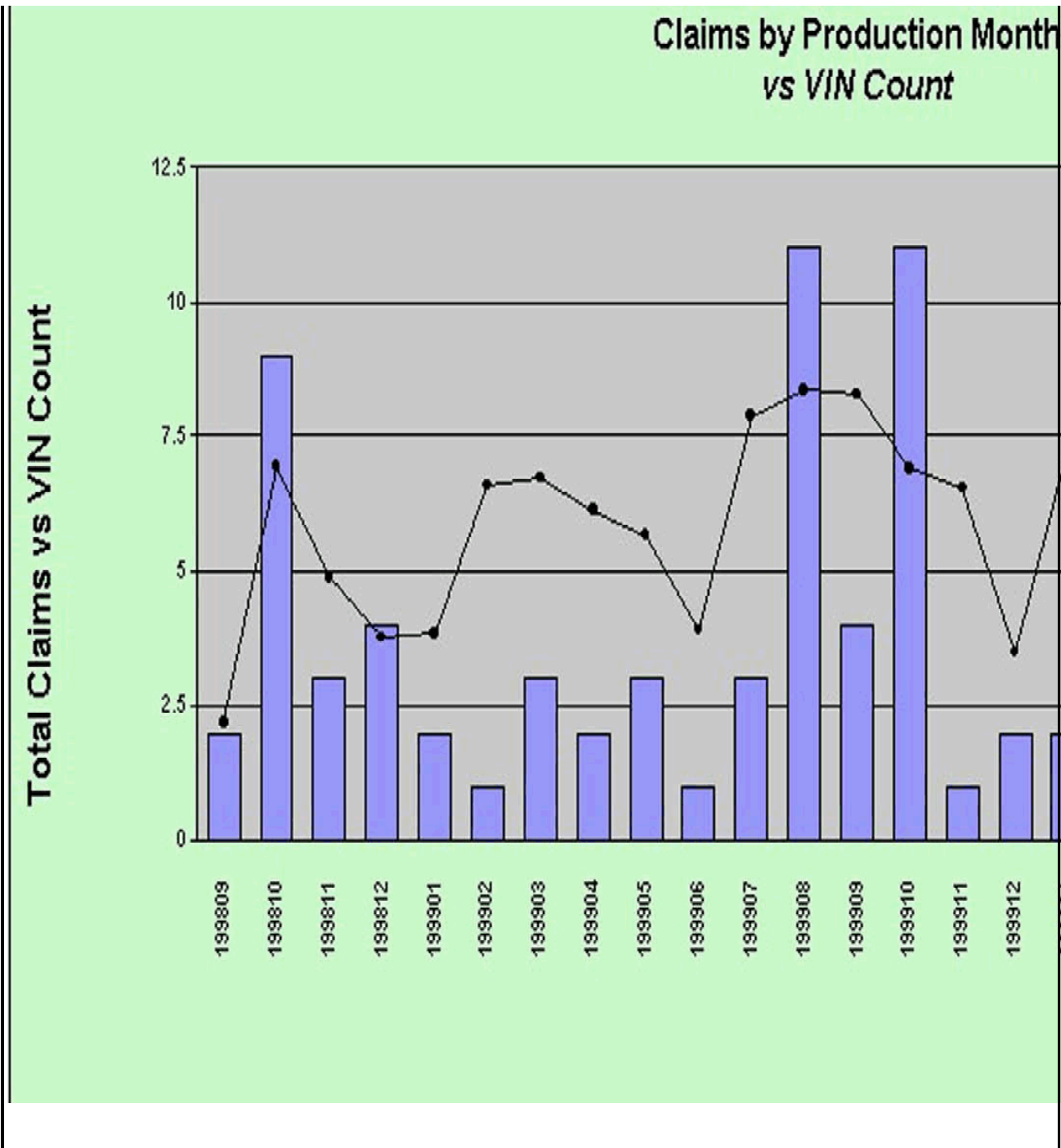
REPAIR TREND ANALYSIS



Op Code Waterfall Chart

Production Range - First 24 Months





Corrective Action:

Date: 12/15/2006

Report Number :

- Replace crossmember assembly P/N (62405-38101).

Comments and Recommendations:

Date: 12/15/2006

Report Number :

HMC should investigate the Crossmember corrosion condition and take necessary corrective action.

- HMC countermeasure of increasing the paint thickness inside the crossmember assembly on 11/20/03 production vehicles may not be an effective solution for those vehicles produced after that date.

- HMA would like to know internal crossmember paint thickness measurements before and after countermeasure.










- Additionally HMA requests HMC to provide an effective countermeasure for vehicles produced prior to the countermeasure date.

- Customers who experience this condition may perceive an image of poor quality, long term durability and technician

Attachments:

Date: 12/15/2006

Report Number :

  
EF 2000 Crossmember Corrosion 185820 01.jpg Copy of 2000 EF Crossmember.xls EF 2000 Crossmember Corrosion Issue 01.jpg
 
EF 2000 Crossmember Corrosion 185820 03.jpg EF 2000 Crossmember Corrosion 185820 02.jpg
 
EF 2000 CROSSMEMBER CORROSION 01.doc EF 2000 Crossmember Corrosion 208349 01.jpg
 
EF 2000 Crossmember Corrosion 208349 02.jpg EF 2000 Crossmember Corrosion 208349 03.jpg



EF 2000 Crossmember Corrosion Illustration 01.jpg
