



April 1, 2004

Richard Boyd, Chief
Medium & Heavy Duty Vehicle Division
Office of Defects Investigation
400 Seventh Street, S.W.
Washington, D.C. 20590

Dear Mr. Boyd:

Re: "NHTSA File PE04-008"

We are responding to your letter dated 3/26/2004 for Collins Bus Corporation. In that letter, you've posed several questions. They are listed here along with the information CBC can supply. In the time frame you've highlighted, CBC has learned about two vehicle fires involving Collins Bus school buses. One of these has been tracked to a wiring issue and the other root cause was not determined.

Pursuant to 49 U.S.C. § 30166 the following information is submitted:

1. Furnish the total number of Collins Buses built on General Motors and Ford cutaway chassis manufactured for sale or lease in the United States.

Please find attached a page listing production quantities of GM and Ford powered buses listed by calendar year. This is the total number for all types of buses.

2. Furnish the number of/and copies of all owner complaints and field reports, studies, surveys, or investigations from all sources which have been received or authorized by Collins, or of which Collins is aware, pertaining to the alleged defect in the subject vehicles. This should include information pertaining to the report included with this letter. Separate the number and copies of

owner complaints from other sources. Also, if Collins has issued any service or technical bulletins, advisories, or other communications to dealer pertaining to the alleged defect in the subject vehicles, provide a copy of each document. If no such documents have been issued, so state.

Collins Bus has experience with two vehicle fires in the time frame of 2000 through 2002. The first of these happened in Springfield, Illinois. The fire was thought to have started from a short in a wire passing the radiator support structure. The circuit involved had a circuit breaker that should have tripped when the short developed but the breaker malfunctioned. As a result of this fire, CBC has changed the type of circuit breakers in the engine compartment. Material associated with this incident is bound together and have a cover page labeled Springfield.

The second fire was brought to our attention by the Ford Motor Company and occurred near Paramus, NJ. Material involved with this incident is bound together and has a cover page labeled Paramus. Bill Wise of the CBC engineering staff traveled to NJ at the request of Ford to learn about this situation. No specific causes were uncovered during these meetings. The end user in this case was Laidlaw Education Services.

Because the first incident had a clear cause, CBC paid Laidlaw for the damage. In the second case a cause wasn't as apparent so Laidlaw's fire insurance covered the loss. All material we have on these two fires are attached. No service bulletins on this subject have been issued.

3. Identify and describe all accidents, subrogation claims, or lawsuits known to Collins pertaining to the alleged defect (where Collins is or was a defendant or co-defendant). Provide Collins analysis of each item, clearly identifying the vehicle model year and VIN, the vehicle owner, and any injuries or property damage which may have occurred.

Collins Bus has not been involved in any litigation involving bus fires in the time period outlined in your letter.

4. Identify and describe all significant modifications or changes that could relate to the alleged defect in the manufacturer of the subject vehicles. The following information must be included for each modification or change:

- a. the reason for the modification or change;
- b. a description of the modification or change;
- c. the approximate calendar date on which the modification or change was incorporated into production; and
- d. state whether the modification or changed components could be interchanged with earlier production components.

As a result of the bus fire in Springfield, Illinois on February 19, 2001, Collins bus changed the type of circuit breaker mounted under the hood of its production buses in June of 2001. The 80 amp breaker now installed can be a service part for older model buses. This year CBC has shipped one service part. The current breaker has a "waterproof" rating. The previous breaker did not have such a rating. The current part 424785 was picked because of questions about why the breaker in the Springfield fire was ineffective is tripping when a short was encountered.

5. Furnish the number of warranty claims related to the alleged defect on the subject vehicles by model series code, calendar month, and problem code. Each problem claim code must be identified.

Collins Bus has processed one warranty claim involving fire in the engine compartment. It occurred on April 19, 2001. The warranty claims applies to a [REDACTED] school bus with unit number 17855. The VIN number is 1FDSE37F8[REDACTED]

Duplicate copies of the response and supporting documents are being sent. A listing of attachments is as follows:

- 1) Calendar year production numbers for cutaway powered buses produced by [REDACTED] Bus Corporation.

- 2) Investigation reports relative to a bus fire in Springfield, Illinois on February 19, 2001.
- 3) Trip report of Collins Bus engineering to vehicle wiring meeting with Ford Motor Company on December 2, 2002.

For Collins Bus Corporation:

A handwritten signature in cursive script, appearing to read "Virgil Schremmer".

Virgil Schremmer
Customer Service

Attachment 1

2000

Ford - 425
Chevy - 767

2001

Ford - 222
Chevy - 739

2002

Ford - 170
Chevy - 696

2003

Ford - 197
Chevy - 738

Attachment 2

Spring Field, Illinois



PRODUCT INCIDENT OR CLAIM REPORT

PRODUCT IDENTIFICATION:

MODEL: 17855 For-11 TYPE: 1 SERIAL #: [REDACTED] LOT: [REDACTED]

CUSTOMER IDENTIFICATION

[REDACTED]

INCIDENT LOCATION/INCIDENT DATE
Springfield, IL 2/19/01

INJURED PARTY NONE
Name _____ Age _____
Address _____

DESCRIBE PROPERTY DAMAGE
Fuel Tank under the hood

DESCRIBE INJURY NONE

WITNESSES
[REDACTED]

DESCRIBE INCIDENT
At 5:30 PM fuel tank started smoking from underneath. Mechanics attempted to get out the fire out. Was unable to get the fire out. Fuel tank completely unusable. Fire did not reach other things inside the vehicle. Was unable to drive.

DESCRIBE CAUSE

COMMENTS & RECOMMENDED ACTION

OFFICE COMMENTS

BY OFFICE _____ TITLE Customer Service Manager DATE 2/19/01 - [Signature]
SUPERVISOR [Signature]

Mileage 23000

MAILING ADDRESS:
WEST 6TH STREET
NORTH HUTCHINSON, KS 67505
682-8000

MAILING ADDRESS:
P.O. BOX 2848
HUTCHINSON, KS 67504-2848
FAX: (316) 682-8836

11684 Tlburn Park Road
St. Louis, Missouri 63148
314 567-3638 • 800 473-9050
FAX 314 567-6028

FTI/SEAConsulting

Applied Sciences

March 12, 2001

Mr. James Waits
Crowe, Waits, Bronnlee and Berger
401 West 89th Street
Kansas City, Missouri 64114

Re: **Vehicular Fire Analysis**

Insured: [REDACTED]

Loss Location: [REDACTED]

Springfield, Illinois

Date of Loss: February 19, 2001

Your File Name: [REDACTED]

S.E.A. Project No. 304038

Dear Mr. Waits:

On February 27, 2001, you requested S.E.A. Inc. to conduct an investigation into the above-captioned fire and render professional opinions regarding its origin and cause. A verbal report of our findings was provided to Mr. Roge [REDACTED] on March 8, 2001 and to you on March 12, 2001. In accordance with your subsequent instructions, no report will be completed by S.E.A. concerning this fire loss. This letter accompanied by photographs in bulk form will conclude S.E.A.'s investigation into this matter.

A visit to the maintenance facility of [REDACTED] in Springfield, Illinois, was conducted on March 5, 2001 by S.E.A. Senior Fire Investigator Charles Giessing, C.F.I. The bus was identified as 1999 Ford model 350 truck chassis with an attached school bus body. The unit number was identified as F17855. The truck's vehicle identification number (VIN) was 1FDSE37H [REDACTED]. The truck was powered by a diesel fueled engine. Mileage showing on the odometer at the time of the fire was 23,881 miles.

FTI Consulting, Inc.

03/22/01 THU 06:30 [TI/RX NO 0003] 002

Page 2

Mr. James Waits

Employees at [REDACTED] informed S.E.A. that the fire occurred while the truck was parked on the bus lot and unattended. Refueling operation had been completed. The truck had been parked for a period of time before the fire's discovery. The fire was discovered by employees refueling the remaining buses in the fleet. Smoke was visible venting from the engine compartment. Attempts were made by employees of Laidlaw to extinguish the fire prior to the fire department arrival. No recent history of repairs to the engine compartment had been completed by mechanics with [REDACTED]


The photographs taken by S.E.A. are attached in bulk form. A green circle has been placed on several of the photographs to indicate the fire origin area. Red arrows have been utilized on several of the photographs to point out the failed electrical wire in the engine compartment that was described to Mr. [REDACTED] during our telephone conversation. According to information supplied by [REDACTED], the failed wire was installed by Collins during the installation of the school bus chassis.

The second set of photographs that are attached are of a exemplar bus that was built near the same time of the fire damaged bus and delivered to [REDACTED]. The bus vehicle identification number (VIN) was 1FDSE37F3[REDACTED]

S.E.A. Inc. hereby certifies the expressed opinions and conclusions have been formulated within a reasonable degree of professional certainty. They are based upon all of the information known by S.E.A. as of the time this report was issued, as well as knowledge, skill, experience, training, and/or education.

Thank you for allowing S.E.A. Inc. to assist you in this matter. This letter and accompanying photographs should not considered a report for litigation purposes. Should circumstances change, a full analytical report can be prepared upon request for litigation purposes. Should you have any questions regarding this letter or the photographs, please do not hesitate to contact this office at your earliest convenience.

Sincerely,



Charles Giessing, C.F.I.
Senior Fire Investigator

enclosures: photographs



DATE: 3-20-01
 TO: Vicq
 FROM: [REDACTED]
 RE: EST. Fire BUS

Collision Care, INC. AND
Automaster did not include
Engine. IT is questionable on
if there is water damage to it or
if it got hot enough to hurt the
Electronic INJ. ?

ANY Question just call: [REDACTED] THANKS

316 675 8181
 "WE CARRY THE NATION'S FUTURE"

COLLISION CARE, INC.

804 N. Division Plwy Springfield, IL 62762
 (217) 822-0853
 Fax: (217) 822-0464
 Tax ID: 37-1348846 BAR #: 02L011104

Damage Assessed By: **MERLE GOLDBERRY**

Deductible: **UNKNON**

Owner: XXXXXXXXXX

Mitchell Service: **013028**

Description: **1999 Ford Contour ES00 Econoline**
 Body Style: **Contour 138" WB**
 VIN: XXXXXXXXXX

Drive Train: **T.3L Turbo Inj 6 Cyl Del 2WD**

Line Num	Esty Number	Labor Type	Operation	Line Item Description	Part Type/ Part Number	Dollar Amount	Labor Units
1	338418	REP	REPAIR	FRT FASCIA			1.8
2	335418	BDY	REMOVED/REPLACE	FRT BUMPER LICENSE BRACKET	F7UZ 17A386 A	21.85	0.4
3	336432	BDY	REMOVED/REPLACE	FRT BUMPER STONE DEFLECTOR	F7UZ 17778 AD	93.35	INC #
4	AUTO	REP	REPAIR	FRT STONE DEFLECTOR			C 1.2
6	308408	BDY	REMOVED/REPLACE	GRILLE	F7UZ 8200 AAA	235.88	INC
6	308408	BDY	REMOVED/REPLACE	R GRILLE BRACKET	YC2Z 8182 AA	8.83	INC #
7	308434	BDY	REMOVED/REPLACE	L GRILLE BRACKET	YC2Z 8182 AA	9.00	INC #
8	308138	BDY	REMOVED/REPLACE	GRILLE MOUNTING PANEL	F7UZ 8A284 AA	34.88	1.8 #
9	AUTO	BDY	CHECK/ADJUST	HEADLAMPS			0.4
10	334778	BDY	REMOVED/REPLACE	UPR GRILLE AIR DEFLECTOR	F7UZ 11E572 AA	18.75	0.3
11	338438	BDY	REMOVED/REPLACE	LWR GRILLE AIR DEFLECTOR	F7UZ 1001A80 AA	18.90	
12	334778	BDY	REMOVED/REPLACE	R HLAMP DOOR	F7UZ 13082 AAA	28.13	INC
13	334778	BDY	REMOVED/REPLACE	L HLAMP DOOR	F7UZ 13884 AAA	28.13	INC
14	301880	BDY	REMOVED/REPLACE	R HLAMP RETAINING RING	E08Z 13015 A	8.58	0.3 #
18	301880	BDY	REMOVED/REPLACE	L HLAMP RETAINING RING	E08Z 13015 A	8.88	0.3 #
18	301714	BDY	REMOVED/REPLACE	R HLAMP SEALED BEAM	F7UZ 13087 A	28.87	0.1 #
17	301715	BDY	REMOVED/REPLACE	L HLAMP SEALED BEAM	F7UZ 13087 A	28.87	0.1 #
18	301720	BDY	REMOVED/REPLACE	R HLAMP ADJUSTING RING	E08Z 13118 A	33.33	INC #
19	301730	BDY	REMOVED/REPLACE	L HLAMP ADJUSTING RING	E08Z 13118 A	33.33	INC #
20	301750	BDY	REMOVED/REPLACE	R HLAMP BEARING	E25Y 13018 B	0.84	
21	301750	BDY	REMOVED/REPLACE	L HLAMP BEARING	E25Y 13018 B	0.84	
22	301788	BDY	REMOVED/REPLACE	R HLAMP RETAINING SPRING	D4ZZ 13081 A	2.38	
23	301788	BDY	REMOVED/REPLACE	L HLAMP RETAINING SPRING	D4ZZ 13081 A	2.38	
24	301840	BDY	REMOVED/REPLACE	R HLAMP ADJUSTING SCREW	F7UZ 13032 D	4.28	
25	301810	BDY	REMOVED/REPLACE	L HLAMP ADJUSTING SCREW	F7UZ 13032 D	4.28	
26	303880	BDY	REMOVED/REPLACE	R PARKING/HAZARD LAMP ASSEMBLY	F7UZ 13200 A	82.00	INC
27	808800	WCH*	REMOVED/REPLACE	BRAKE BOOSTER	New	318.00*	1.0*
28	808800	WCH*	REMOVED/REPLACE	MASTER CYLINDER	New	108.00*	1.0*
28	808800	WCH*	REMOVED/REPLACE	UNDERHOOD FUSE BLOCK	New	78.00*	2.0*
28	808800	WCH*	REMOVED/REPLACE	WIRE HARNESS UNDER HOOD	New	1,008.23*	8.0*
29	808800	BDY*	REMOVED/REPLACE	CROSSING ARM	420734	371.00*	1.0*
30	808800	BDY*	REMOVED/REPLACE	LT FENDER MIRROR	418818C		1.0*
31	808800	BDY*	REMOVED/REPLACE	RT FENDER MIRROR	418818C	213.00*	1.0*

ESTIMATE RECALL NUMBER: **03142801 08:30:24 272**

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Mitchell Data Version:
 UltraMate Version:

BAR_51_A
 4.8.04

Date: 03/14/2001 11:00 AM
 Estimate ID: 272
 Estimate Version: 0
 Preliminary Profile ID: Mitchell

34	90880	BOY *	REMOVED/REPLACE	UPPER LIGHTS ON BOX
35	90880	REF *	REFRESH/REPAIR	COLORLEND
36	90880	WCH *	REMOVED/REPLACE	FRON
37	90880	REF *	REFRESH/REPAIR	FRONT UPPER BODY
38	30280	BOY	REMOVED/REPLACE	L PARKING/ALARM LAMP ASSEMBLY
39	30437	BOY	REMOVED/REPLACE	HOOD PANEL
40	AUTO	REF	REFRESH	HOOD OUTSIDE
41	AUTO	REF	REFRESH	HOOD UNDERSIDE
42	30230	BOY	REMOVED/REPLACE	HOOD SEAL
43	30230	BOY	REMOVED/REPLACE	HOOD ADHESIVE BUBBLE
44	30168	BOY	REMOVED/REPLACE	R HOOD STOP BUMPER
45	30598	BOY	REMOVED/REPLACE	L HOOD STOP BUMPER
46	30034	BOY	REMOVED/REPLACE	HOOD INSULATOR
47	30380	BOY	REMOVED/REPLACE	R HOOD HINGE
48	AUTO	REF	REFRESH	R HINGE
49	30290	BOY	REMOVED/REPLACE	L HOOD HINGE
50	AUTO	REF	REFRESH	L HINGE
51	30436	BOY	REMOVED/REPLACE	HOOD PRIMARY LATCH
52	30049	BOY	REMOVED/REPLACE	HOOD RELEASE CABLE
53	30040	BOY	REMOVED/REPLACE	HOOD SUPPORT ROD
54	30430	BOY	REMOVED/REPLACE	HOOD CLIP
55	30994	BOY	REMOVED/REPLACE	HOOD PIVOT
56	30043	BOY	REMOVED/REPLACE	COOLING RADIATOR SUPPORT
57	AUTO	REF	REFRESH	RADIATOR SUPPORT
58	30032	BOY	REMOVED/REPLACE	COOLING RADIATOR
59	30043	BOY	REMOVED/REPLACE	COOLING RADIATOR FILLER CAP
60	30475	BOY	REMOVED/REPLACE	COOLING RADIATOR SHROUD
61	30471	BOY	REMOVED/REPLACE	COOLING FAN CLUTCH
62	30520	BOY	REMOVED/REPLACE	COOLING ELECTRIC FAN BLADE
63	30480	BOY	REMOVED/REPLACE	COOLING DRIVE BELT
64	30380	WCH	REMOVED/REPLACE	COOLING WATER PUMP -M
65	30370	BOY	REMOVED/REPLACE	UPR COOLING RADIATOR HOSE
66	30380	BOY	REMOVED/REPLACE	LWR COOLING RADIATOR HOSE
67	30370	BOY	REMOVED/REPLACE	COOLING RECOVERY TANK
68	30323	BOY	REMOVED/REPLACE	R COOLING AIR DEFLECTOR
69	30324	BOY	REMOVED/REPLACE	L COOLING AIR DEFLECTOR
70	30310	WCH	REMOVED/REPLACE	TRANS OIL COOLER -M
71	30088	WCH	REMOVED/REPLACE	AIR COND CONDENSER -M
72	AUTO	WCH	REMOVED/REPLACE	EVACUATE & RECHARGE A/C -M
73	30330	BOY	REMOVED/REPLACE	R UPR AIR COND CONDENSER BRACKET
74	30340	BOY	REMOVED/REPLACE	L UPR AIR COND CONDENSER BRACKET
75	30380	BOY	REMOVED/REPLACE	FRT AIR COND BRACKET
76	30380	BOY	REMOVED/REPLACE	AIR COND CLAMP
77	30370	BOY	REMOVED/REPLACE	R LWR AIR COND CONDENSER BRACKET
78	30380	BOY	REMOVED/REPLACE	L LWR AIR COND CONDENSER BRACKET
79	30081	BOY	REMOVED/REPLACE	R AIR COND SEAL
80	30082	BOY	REMOVED/REPLACE	L AIR COND SEAL
81	30286	BOY	REMOVED/REPLACE	R UPR AIR COND BRACE
82	30287	BOY	REMOVED/REPLACE	L UPR AIR COND BRACE
83	30288	BOY	REMOVED/REPLACE	R LWR AIR COND BRACE
84	30289	BOY	REMOVED/REPLACE	L LWR AIR COND BRACE
85	30470	WCH	REMOVED/REPLACE	AIR COND COMPRESSOR -M
86	30474	WCH	REMOVED/REPLACE	AIR COND PULLEY -M
87	30477	WCH	REMOVED/REPLACE	AIR COND CLUTCH -M
88	30434	BOY	REMOVED/REPLACE	AIR COND PROTECTOR
89	30478	WCH	REMOVED/REPLACE	AIR COND HOSE -M
90	30480	WCH	REMOVED/REPLACE	AIR COND RECEIVER/DRIER -M
91	30480	WCH	REMOVED/REPLACE	AIR COND SUCTION HOSE -M

48888		18.00	0.5
New			2.8
New		48.00	0.6
Existing			4.0
FUZ 1201 A		82.00	MC
FUZ 1001 AE		204.80	1.0 #
			C 2.4
			C 1.3
FUZ 16228 A		18.00	MC
FUZ 1612 B		14.12	0.1
FUZ 16708 A		3.08	0.1
FUZ 16708 A		3.08	0.1
FUZ 16738 A		78.37	MC
FUZ 16738 A		21.06	1.0 #
			0.2
FUZ 16738 A		21.06	1.0 #
			0.2
FUZ 16708 AA		36.48	0.3 #
FUZ 16818 AB		26.72	1.0 #
FUZ 16828 AC		4.73	0.2
FUZ 16838 B		1.80	
FUZ 16838 CA		2.38	
XC22 10128 AA		201.14	7.0 #
			1.0
ORDER FROM DEALER		384.22	1.5
82TZ 0100 A		8.00	
XC22 0140 AB		24.16	MC #
ORDER FROM DEALER		100.82	0.5 #
P2TZ 0000 A		121.08	0.3 #
ORDER FROM DEALER		43.90	0.6
82TZ 0001 B		204.84	4.0 #
FUZ 0300 A		26.87	0.2 #
80UZ 0300 A		14.87	0.2 #
FUZ 0400 A		14.26	0.4
FUZ 0510 AA		4.17	
FUZ 0511 AA		4.17	
ORDER FROM DEALER		220.05	1.0 #
FUZ 10712 AA		171.20	0.3 #
			1.4
FUZ 10701 A		9.90	
FUZ 10734 A		9.90	
FUZ 100721 A		24.10	
P1CZ 100078 A		2.82	
FUZ 10730 A		9.90	
FUZ 10734 A		9.90	
FUZ 100073 AA		6.32	
FUZ 100073 AB		6.32	
FUZ 100094 AB		14.78	
FUZ 100094 AB		14.78	
F4ZZ 100094 A		5.66	
F4ZZ 100094 A		5.16	
PYZ 10700 AB		398.44	2.0
FUZ 100704 AA		48.04	0.5 #
F8VZ 100706 A		32.22	MC #
FUZ 100807 AA		11.86	
ORDER FROM DEALER		30.88	1.0
XC2Z 100036 AA		107.42	1.0
ORDER FROM DEALER		102.18	1.0

ESTIMATE SERIAL NUMBER: 03142001 10:30:24 272

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Mitchell Data Version:
 Ultimate Version:

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 4.6.004

QTY	PN	DESC	UNIT	ESTIMATE	ESTIMATE	ESTIMATE	ESTIMATE
				QTY	PRICE	AMOUNT	UNIT
82	30482	MCH	REMOVE/REPLACE	AIR COND EVAPORATOR ASSY	-M	F7UZ 18065 DA	182.17 4.0" 8
83	30485	BDY	REMOVE/REPLACE	AIR COND CASINET		F7UZ 18A775 AA	15.83
84	30488	MCH	REMOVE/REPLACE	AIR COND DUCT	-M	F7UZ 18A919 AA	13.48
85	30487	MCH	REMOVE/REPLACE	AIR COND DOOR	-M	F7UZ 18A913 AA	9.89
86	30491	MCH	REMOVE/REPLACE	AIR COND EVAPORATOR CORE	-M	F7UZ 18090 AA	145.14 2.3
87	30423	MCH	REMOVE/REPLACE	AIR COND COVER	-M	XG2Z 18B736 AA	32.48 2.4
88	30427	MCH	REMOVE/REPLACE	AIR COND BLOWER MOTOR	-M	XC2Z 18000 BA	87.78 0.7 8
89	30434	MCH	REMOVE/REPLACE	AIR COND BLOWER FAN	-M	F0TZ 18094 A	15.83 INC 8
180	30428	MCH	REMOVE/REPLACE	HEATER ASSEMBLY	-M	XC2Z 18C76 BA	120.93 4.5" 8
181	30042	MCH	REMOVE/REPLACE	HEATER CORE	-M	F7UZ 18C76 AA	77.11 INC
182	30029	MCH	REMOVE/REPLACE	HEATER CASE SEAL	-M	F2UZ 18000 B	8.97
183	30052	MCH	REMOVE/REPLACE	LWR HEATER WRM,	-M	F2UZ 18000 A	8.27
184	30053	MCH	REMOVE/REPLACE	HEATER DOOR	-M	XC2Z 18C76 BA	130.83 2.5
185	30027	MCH	REMOVE/REPLACE	HEATER SEAL	-M	F7UZ 18000 AA	10.82
186	30028	MCH	REMOVE/REPLACE	HEATER GROMMET	-M	F2UZ 18A428 B	1.48
187	30027	BDY	REMOVE/REPLACE	R FENDER PANEL		F7UZ 18000 AB	208.08 2.5" 8
188	AUTO	REF	REFRESH	R FENDER OUTSIDE			C 1.8
189	AUTO	REF	REFRESH	R FENDER EDGE			C 0.5
190	30028	BDY	REMOVE/REPLACE	L FENDER PANEL		F7UZ 18000 AC	208.08 2.5" 8
191	AUTO	REF	REFRESH	L FENDER OUTSIDE			C 1.8
192	AUTO	REF	REFRESH	L FENDER EDGE			C 0.5
193	30051	BDY	REMOVE/REPLACE	L FENDER SPLASH SHIELD		F7UZ 18100 AC	17.57 INC
194	30052	MCH	REMOVE/REPLACE	AIR BAG MONITOR	-M	F7UZ 18000 AA	274.93 0.5
195	30094	MCH	REMOVE/REPLACE	CTR AIR BAG SENSOR	-M	F7UZ 18004 DA	85.86 0.3
196	30494	MCH	REMOVE/REPLACE	STEERING POWER PUMP	-M	F7UZ 3A714 ACM	189.73 2.5"
197	30050	BDY	REMOVE/REPLACE	STEERING DRIVE BELT		ORDER FROM DEALER	31.22 0.7
198	30426	MCH	REMOVE/REPLACE	STEERING HIGH PRESSURE HOSE	-M	F7UZ 3A718 FC	38.86 1.8" 8
199	30079	MCH	REMOVE/REPLACE	STEERING RETURN HOSE	-M	F7UZ 3A713 AC	28.55 1.8" 8
200	30043	BDY	REMOVE/REPLACE	AIR CLEANER ASSEMBLY		F7UZ 8000 AB	133.38 0.3
201	31330	BDY	REMOVE/REPLACE	AIR CLEANER INTAKE PIPE		F2UZ 8C076 D	27.88 0.2
202	31330	MCH	REMOVE/REPLACE	EMISSION SVS AIR PUMP	-M	ORDER FROM DEALER	334.38 1.8"
203	31390	MCH	REMOVE/REPLACE	EMISSION SVS EGR VALVE	-M	ORDER FROM DEALER	73.91 1.0"
204	31380	MCH	REMOVE/REPLACE	MAIN COMPUTER MODULE	-M	ORDER FROM DEALER	280.00 1.0"
205	31380	MCH	REMOVE/REPLACE	MAP SENSOR	-M	ORDER FROM DEALER	111.34 0.5"
206	31380	MCH	REMOVE/REPLACE	COOLANT TEMP SENSOR	-M	ORDER FROM DEALER	38.86 0.3
207	30070	MCH	REMOVE/REPLACE	ALTERNATOR	-M	F0UZ 18046 VARSH	239.33 2.0"
208	30084	BDY	REMOVE/REPLACE	HORN ASSEMBLY		YC2Z 18E32 AA	21.57 0.5 8
209	30100	GLS	REMOVE/REPLACE	WINDSHIELD GLASS		09W122205Y	845.86 2.8" 8
210	31460	BDY	REMOVE/REPLACE	WINDSHIELD REVEAL MOULDING		F2UZ 180314 A	78.83 0.3
211	30300	BDY	REMOVE/REPLACE	R WINDSHIELD STOPPER		F7UZ 180326 AA	1.89 0.1
212	30301	BDY	REMOVE/REPLACE	L WINDSHIELD STOPPER		F0UZ 180328 AA	1.89 0.1
213	31306	BDY	REMOVE/REPLACE	R WINDSHIELD WIPER BLADE		X34Z 17028 BA	8.84 INC
214	30006	BDY	REMOVE/REPLACE	L WINDSHIELD WIPER BLADE		X34Z 17028 BA	8.84 INC
215	31829	BDY	REMOVE/REPLACE	R WINDSHIELD ARM & PIVOT		F2UZ 17026 A	54.16 1.8" 8
216	31820	BDY	REMOVE/REPLACE	L WINDSHIELD ARM & PIVOT		F2UZ 17009 A	54.16 1.8" 8
217	31830	BDY	REMOVE/REPLACE	WINDSHIELD MOTOR COVER		F2UZ 17C441 A	6.12
218	30341	BDY	REMOVE/REPLACE	WINDSHIELD WIPER MOTOR		F7UZ 17008 AA	189.76 0.3
219	30084	BDY	REMOVE/REPLACE	WINDSHIELD OUTPUT ARM		F0UZ 17A436 AA	4.89
240	30006	BDY	REMOVE/REPLACE	WINDSHIELD WASHER RESERVOIR		F7UZ 17013 AE	48.07 0.5 8
241	31820	BDY	REMOVE/REPLACE	WINDSHIELD WASHER PUMP		ESTZ 17084 B	25.38 INC
242	31820	BDY	REMOVE/REPLACE	R COWL DASH COWL TOP GRILLE		F0UZ 18022A05 AAA	48.35 0.3
243	31830	BDY	REMOVE/REPLACE	L COWL DASH COWL TOP GRILLE		F4UZ 18022A06 A	78.96 0.3
244	30033	MCH	REMOVE/REPLACE	INST PANEL ASSY	-M	ORDER FROM DEALER	727.07 12.0"
245	30050	BDY	REMOVE/REPLACE	L FRNT DOOR REAR VIEW MIRROR		F2UZ 17000 B	84.29 0.2
246	80010		ADD'L COST	DETAIL/CLEANUP			142.80*
247	AUTO	REF	ADD'L OPR	CLEAR COAT			2.8
248	83083	REF	ADD'L OPR	TINT COLOR			1.8"
249	83085	BDY	ADD'L OPR	RESTORE CORROSION PROTECTION			0.5"

ESTIMATE RECALL NUMBER: 081472601 18-28-24 273

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Mitchell Data Version: MAR_01_A
 Ultrastate Version: 4.8.004



180	838917	REP	ADD'L OPR	COLOR SAND & BUFF				1.8*
181	838918	REP	ADD'L OPR	MASK FOR OVERSPRAY				8.75* 1.8*
182	AUTO		ADD'L COST	PAINT/MATERIALS			819.40*	
183	AUTO		ADD'L COST	HAZARDOUS WASTE DISPOSAL			4.75*	

* - Judgment Item
 # - Labor Note Applies
 C - Included in Clear Cost Calc

L. Labor Subtotals					Sublet		Total		K. Part Replacement Summary			Amount
	Units	Rate	Amount	Amount								
Body	36.2	46.00	1,665.20	0.00	1,665.20	T			Taxable Parts			10,982.33
Refinish	26.2	40.00	1,048.00	0.00	1,048.00			Sales Tax	⊕	0.380%		687.21
Glass	1.0	40.00	40.00	0.00	40.00							
Mechanical	66.1	64.90	4,289.91	0.00	4,289.91				Total Replacement Parts Amount			11,669.54
Taxable Labor								1,616.75				
Non-Taxable Labor								5,177.40				
Labor Summary							131.5	5,184.15				
M. Additional Costs					Amount		N. Adjustments			Amount		
Taxable Costs						519.48	Customer Responsibility			0.00		
Sales Tax					⊕	31.98						
Non-Taxable Costs						144.75						
Total Additional Costs						696.21						
								I. Total Labor:			5,184.15	
								J. Total Replacement Parts:			11,669.54	
								K. Total Additional Costs:			687.21	
								Grand Total:			18,539.74	
								IV. Total Adjustments:		0.00		
								Net Total:			18,539.74	

This is a preliminary estimate.
Additional charges to the estimate may be required for the actual repair.

Visual Damage Report

2009 Prepared On 3/14/01

Printed: 03/16/01 09:00:43

By: Dennis Pughen

Page: 2

Customer Information:	
[REDACTED]	
Home: (000)	
Work: (000)	

Vehicle Information:	
1999 Ford	
ECONOLINE E350	
Style: Cutaway E350	
Color:	Code:
Miles:	Lic:
VIN: 1FD9E37B	[REDACTED]

Insurance Company Information:		Contact:		
Plan#:	Policy#:	Claim#:	DOL:	Detachable:

Op	Description	Typ	Price	Labor	Typ	Paint
RR	Rt & Lt Lwr A/C Brace	NW	10.30		B	
RR	A/C COMPRESSOR	NW	390.44	2.6	M	
RR	A/C Pulley	NW	49.04	0.8	M	
RR	A/C Protector	NW	32.22		M	
RR	A/C Hose	NW	36.66	1.0	M	
RR	A/C Receiver/Drier	NW	107.42	1.0	M	
RR	A/C Suction Hose	NW	102.16	1.0	M	
RR	Trans Cooler/fan	NW	220.06	1.0	M	
RR	Condenser/a/c	NW	171.26	0.3	M	
RR	A/C Charge	NW	66.00	1.4	M	
RR	A/C Evaporator Core	NW	148.14	2.3	M	
RR	A/C Evaporator	NW	158.17	4.0	M	
RR	A/C Gasket	NW	15.66		B	
RR	A/C Duct	NW	13.46		M	
RR	A/C Door	NW	9.83		M	
RR	A/C Cover	NW	32.46	0.4	M	
RR	A/C Blower Motor	NW	67.76	0.7	M	
RR	A/C Blower Fan	NW	16.03		M	
RR	Heater Assy	NW	120.63	4.6	M	
RR	Heater Core	NW	77.11		M	
RR	Heater Case Seal	NW	6.07		M	
RR	Lwr Heater Seal	NW	6.27		M	
RR	Heater Door	NW	120.63	2.6	M	
RR	Heater Seal	NW	10.62		M	
RR	Heater Gromet	NW	1.40		M	
RR	Hood Panel	NW	254.00	2.0	B	2.6
RR	Edge Hood	NW			R	1.8
RR	Hood Seal	NW	15.63		B	
RR	Hood Emblem	NW	14.12	0.2	B	
RR	hood Stoper/Rt & Lt	NW	6.16		B	
RR	Hood Insulator	NW	78.37		B	
RR	Rt Hood Hinge	NW	21.95	1.0	B	0.4
RR	Lt Hood Hingr	NW	21.95	1.0	B	0.4
RR	Hood Prim Latch	NW	35.46	0.3	B	
RR	Hood Release Cable	NW	26.72	1.0	B	
RR	Hood Supp Rod	NW	4.78	0.2	B	
RR	Hood Clip	NW	1.90		B	
RR	Hood Pivot	NW	2.30		B	
RR	Upper Body Panel	EX		4.0	B	2.0
RR	Lt Fender Mirror	NW	219.00	1.5	B	
RR	Rt Fender Mirror	NW	219.00	1.5	B	

Visual Damage Report

2009 Prepared On: 3/14/01

Printed: 03/14/01 09:08:43

By: Dennis Puram

Page: 3

Customer Information:
 [Redacted]
 Home: (999)
 Work: (999)

Vehicle Information:
 1999 Ford
 ECONOLINE E350
 Style: Custom E350
 Color: Code:
 Miles: Lic:
 VIN: 1FDGE37F0[Redacted]

Insurance Company Information:
 Name: Policy #: Contact: DOL: Deductible:

Op	Description	Typ	Price	Labor	Typ	Paint
RR	Rt Fender	NW	200.00	2.8	B	2.2
RR	Edge Fender	NW			R	0.7
RR	Lt Fender	NW	200.00	2.8	B	2.2
RR	Edge Fender	NW			R	0.7
RR	Lt Fender Splash	NW	17.87		B	
RR	Frt W-Shield/Glass	NW	548.80	2.0	G	
RR	Glass Reveal Midg	NW	75.52	0.3	B	
RR	W-Shield Stopper's	NW	3.20		B	
RR	W-Shield Blades	NW		19.4	B	
RR	W-Shield Arm/Pivot rt	NW	54.15	1.5	B	
RR	W-Shield Arm/Pivot ll	NW	54.15	1.5	B	
RR	W-Shield Motor Cover	NW	8.12		B	
RR	W-Shield wiper Motor	NW	108.76	0.9	B	
RR	W-Shield Output Arm	NW	4.85		B	
RR	W-Shield washer Reservoir	NW	48.07	0.5	B	
RR	W-Shield washer Pump	NW	28.36		B	
RR	Rt Cowl/Dash cowl top grille	NW	48.33	0.3	B	
RR	Lt Cowl/Dash cowl top grille	NW	76.95	0.3	B	
RR	Inst Panel Assy	NW	727.07	18.4	B	
RR	Air Bag Mon	NW	274.93	0.5	M	
RR	Ctr Air Bag Sensor	NW	58.58	0.3	B	
RR	Lt Frt Dr R View Mirror	NW	84.28		B	
RR	Steering Power Pump	NW	185.28	2.8	M	
RR	Steering Drive Belt	NW	31.22	1.0	M	
RR	Steering Press Hose	NW	30.86	1.8	M	
RR	Steering Return Hose	NW	28.56	1.1	M	
RR	Air Cleaner Assy	NW	183.30	0.6	B	
RR	Air Cleaner Intake pipe	NW	27.59		M	
RR	Emis Sys Air Pump	NW	334.38	1.5	M	
RR	Emis Sys ERG Valve	NW	73.31	1.0	M	
RR	Computer Module	NW	280.00	2.0	M	
RR	Map Sensor	NW	111.24	0.8	B	
RR	Coolant Temp Sensor	NW	28.80	0.5	M	
RR	Alternator	NW	233.33	2.0	M	
RR	Horn Assy	NW	21.57	0.5	M	
AD	CLEAN UP & DETAIL			2.0	G	
RF	CLEAR COAT/REFINISH				R	3.5
RF	COLOR / TINT				R	1.0
RR	CORROSION PROTECTION	NW			R	3.0
AD	COVER VEHICLE / INTERIOR	NW			R	1.0
RR	GLASS URETHANE ADHESIVE	NW	78.35		G	

Visual Damage Report

2009 Prepared On: 3/14/01

Printed: 03/16/01 09:00:43

By: Darrel Putnam

Page: 4

Customer Information:	
Home: (999)	
Work: (999)	

Vehicle Information:	
1998 Ford	
ECONOLINE E350	
Style: Cutaway E350	
Color:	Code:
Miles:	Lic:
VIN: 1FD8E37P8	

Insurance Company Information:			
Phone:	Policy #:	Class #:	Code:
			Deductible:

Op	Description	Typ	Price	Labor	Typ	Paint
RF	MASK JAMS FOR REFINISH	EX			R	1.9
RF	OVERSPRAY PROTECTION	EX	35.40	1.0	R	
RR	RE-PLACE SOUND DEADENING	NW	64.25	1.0	B	
AD	RE-STORE CAULKING				R	1.2
AD	RESTORE SEAMSEALER	NW			R	0.5
RR	SHOP SUPPLYS / MATERIALS	EX	134.60		R	

TOTALS:			
L Parts	Parts		11290.74
L Labor	Body	72.2 units @ \$9.00/unit	649.80
	Refinish	91.2 units @ \$9.00/unit	820.80
	Mechanics	69.2 units @ \$9.00/unit	622.80
	Frame	units @ \$7.00/unit	
	Glass/Detail	4.8 units @ \$9.00/unit	43.20
	Body-Stru	units @ \$7.00/unit	
B. Mat'ls	Paint Materials		630.00
	Shop Supplies		
	Hazardous Waste Removal		5.00
N.Other	Sublet		
	Sublet (Non-Taxable)		
	Towing & Storage		
	Miscellaneous		35.40
V.Total	Sales Tax		798.23
	Grand Total		22153.97

Date: 2/16/2001 04:43 PM
 Estimate ID: 86
 Estimate Version: 0
 Preliminary
 Profile ID: Truck Profile

Blando Automotive

3000 Raydon Springfield, IL 62707-4332
 (217) 438-0600
 Fax: (217) 438-0673

Damage Assessed By: TOM BLAND

Substrate: UNIFORM

Owner
 Address
 Telephone

Estimate Service: 013030

Description: 1998 Ford Excursion EX30
 Body Style: VanCrateExt 121" WB

Drive Train: 7.3L Turbo Inj 8 Cyl Del ZVD

Line	Qty	Labor	Operation	Line Item	Part Type/ Part Number	Dollar Amount	Labor Units
1	330410	REF	REFRESH	FRT FACEMAR			1.5
2	330413	BOY	REMOVED/INSTALL	FRT BUMPER ASSY			INC
3	300071	BOY	REMOVED/REPLACE	GRILLE	FRUZ 0200 BAA	46.00	INC
4	300066	BOY	REMOVED/REPLACE	R GRILLE BRACKET	Y02Z 0102 AA	0.00	INC #
5	300104	BOY	REMOVED/REPLACE	L GRILLE BRACKET	Y02Z 0102 AA	0.00	INC #
6	300128	BOY	REMOVED/REPLACE	GRILLE MOUNTING PANEL	FRUZ 04304 AA	04.00	1.0 #
7	AUTO	BOY	CHECK/ADJUST	HEADLAMP			0.4
8	330470	BOY	REMOVED/REPLACE	UPR GRILLE AIR DEFLECTOR	FRUZ 100072 AA	10.70	INC
9	330030	BOY	REMOVED/REPLACE	LRW GRILLE AIR DEFLECTOR	FRUZ 100040 AA	10.00	
10	330470	BOY	REMOVED/REPLACE	R HLAMP DOOR	FRUZ 13002 AAA	20.10	INC
11	330470	BOY	REMOVED/REPLACE	L HLAMP DOOR	FRUZ 10004 AAA	20.10	INC
12	300080	BOY	REMOVED/REPLACE	R HLAMP RETAINING RING	000Z 10010 A	0.10	0.1 #
13	300080	BOY	REMOVED/REPLACE	L HLAMP RETAINING RING	000Z 10010 A	0.10	0.1 #
14	300714	BOY	REMOVED/REPLACE	R HLAMP SEALED BEAM	FRUZ 13007 A	10.07	INC #
15	300710	BOY	REMOVED/REPLACE	L HLAMP SEALED BEAM	FRUZ 13007 A	10.07	INC #
16	300720	BOY	REMOVED/REPLACE	R HLAMP ADJUSTING RING	000Z 13110 A	10.10	INC #
17	300720	BOY	REMOVED/REPLACE	L HLAMP ADJUSTING RING	000Z 13110 A	10.10	INC #
18	300730	BOY	REMOVED/REPLACE	R HLAMP BEARING	000Y 13010 B	0.10	
19	300730	BOY	REMOVED/REPLACE	L HLAMP BEARING	000Y 13010 B	0.10	
20	300700	BOY	REMOVED/REPLACE	R HLAMP RETAINING SPRING	D02Z 10011 A	2.00	
21	300000	BOY	REMOVED/REPLACE	R HLAMP ADJUSTING SCREW	FRUZ 13002 D	4.00	
22	300000	BOY	REMOVED/REPLACE	R HLAMP ADJUSTING SCREW	FRUZ 13002 D	4.00	
23	330701	BOY	REMOVED/REPLACE	RUNNING LAMP MODULE	XL0Z 100270 AA	45.77	0.1 #
24	300020	BOY	REMOVED/REPLACE	MODULE BRACKET	P01Z 10014 A	20.00	INC #
25	300000	BOY	REMOVED/REPLACE	R PARKING/LAMP LAMP ASSEMBLY	FRUZ 13000 A	02.00	INC
26	300000	BOY	REMOVED/REPLACE	L PARKING/LAMP LAMP ASSEMBLY	FRUZ 13001 A	02.00	INC
27	300031	BOY	REMOVED/REPLACE	R PARKING/LAMP LAMP BULB	F40Z 13000 A	1.00	INC #
28	300032	BOY	REMOVED/REPLACE	L PARKING/LAMP LAMP BULB	F40Z 13000 A	1.00	INC #
29	300100	BOY	REMOVED/REPLACE	R PARKING/LAMP LAMP SOCKET & WIRE	F1TZ 10011 F	0.00	
30	300110	BOY	REMOVED/REPLACE	L PARKING/LAMP LAMP SOCKET & WIRE	F1TZ 10011 F	0.00	
31	300027	BOY	REMOVED/REPLACE	HOOD PANEL	FRUZ 10010 AR	254.00	1.0 #
32	AUTO	REF	REFRESH	HOOD OUTSIDE			C 2.4
33	AUTO	REF	REFRESH	HOOD INSIDE			C 1.2

ESTIMATE RECALL NUMBER: 0140001 1120:30 00

Michael Data Version:
 Universal Version:

MAR_01_A
 4.004

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Date: 3/16/2001 04:43 PM
 Estimate ID: 06
 Estimate Version: 0
 Preliminary
 Profile ID: Track Profile

QTY	DESCRIPTION	UNIT	REMARKS	ITEM	PRICE	UNIT PRICE	TOTAL
34	30220	BOY	REMOVE/REPLACE HOOD SEAL		FTUZ 10A320 A	16.00	544.00
35	30220	BOY	REMOVE/REPLACE HOOD ADHESIVE BUBBLE		FTUZ 0213 B	14.12	483.96
36	339187	BOY	REMOVE/REPLACE HOOD NUT		* N00000 030	3.40	117.48
37	339190	BOY	REMOVE/REPLACE R HOOD STOP BUMPER		FTUZ 10730 A	8.00	272.00
38	339190	BOY	REMOVE/REPLACE L HOOD STOP BUMPER		FTUZ 10730 A	8.00	272.00
39	300044	BOY	REMOVE/REPLACE HOOD INSULATOR		FTUZ 10730 A	78.57	2660.58
40	302300	BOY	REMOVE/REPLACE R HOOD HINGE		FTUZ 10730 A	21.00	693.00
41	AUTO	REF	REFRESH R HINGE				0.2
42	302300	BOY	REMOVE/REPLACE L HOOD HINGE		FTUZ 10737 A	21.00	693.00
43	AUTO	REF	REFRESH L HINGE				0.2
44	300430	BOY	REMOVE/REPLACE HOOD PRIMARY LATCH		FTUZ 10730 AA	30.00	990.00
45	300430	BOY	REMOVE/REPLACE HOOD RELEASE CABLE		FTUZ 10010 AM	20.72	663.12
46	300440	BOY	REMOVE/REPLACE HOOD SUPPORT ROD		FTUZ 00020 AC	4.33	138.36
47	300430	BOY	REMOVE/REPLACE HOOD OIL P		FTUZ 00020 B	1.00	31.50
48	300430	BOY	REMOVE/REPLACE HOOD OIL P		FTUZ 00020 CA	2.00	63.00
49	300430	BOY	REMOVE/REPLACE HOOD LAMP		RELY 10730 A	75.00	2325.00
50	300430	BOY	REMOVE/REPLACE COOLING-RADIATOR SUPPORT		XCEZ 10130-AA	304.14	9526.20
51	300430	BOY	REMOVE/REPLACE RADIATOR SUPPORT				0.0
52	300430	BOY	REMOVE/REPLACE COOLING RADIATOR		ORDER FROM DEALER	304.21	9526.50
53	300430	BOY	REMOVE/REPLACE COOLING RADIATOR FILLER CAP		FTUZ 0700 A	0.30	9.45
54	302780	BOY	REMOVE/REPLACE COOLING DRAIN TAP		FTUZ 0110 A	4.30	133.20
55	334700	BOY	REMOVE/REPLACE COOLING RADIATOR SHROUD		XCEZ 0140 AM	24.70	770.10
56	334701	BOY	REMOVE/REPLACE COOLING FAN CLUTCH		ORDER FROM DEALER	100.00	3000.00
57	300030	BOY	REMOVE/REPLACE COOLING ELECTRIC FAN BLADE		FTUZ 0000 A	121.85	3655.50
58	303000	BOY	REMOVE/REPLACE COOLING WATER PUMP PULLEY		ORDER FROM DEALER	70.00	2100.00
59	303000	BOY	REMOVE/REPLACE COOLING DRIVE BELT		ORDER FROM DEALER	43.00	1290.00
60	304010	BOY	REMOVE/REPLACE COOLING WATER PUMP		FTUZ 0001 AM	400.00	12000.00
61	314010	BOY	REMOVE/REPLACE UPR COOLING RADIATOR HOSE		XCEZ 0000 BA	23.00	713.00
62	300000	BOY	REMOVE/REPLACE LWR COOLING RADIATOR HOSE		FTUZ 0000 BA	30.00	900.00
63	300000	BOY	REMOVE/REPLACE COOLING RECOVERY TANK		FTUZ 0000 BA	67.00	2010.00
64	300000	BOY	REMOVE/REPLACE R COOLING AIR DEFLECTOR		FTUZ 0010 AA	4.17	125.10
65	300000	BOY	REMOVE/REPLACE L COOLING AIR DEFLECTOR		FTUZ 0011 AA	4.17	125.10
66	300010	BOY	REMOVE/REPLACE TRANS OIL COOLER		ORDER FROM DEALER	220.00	6600.00
67	300017	BOY	REMOVE/REPLACE R FENDER PANEL		FTUZ 10000 AB	200.00	6000.00
68	AUTO	REF	REFRESH R FENDER OUTSIDE				0 1.0
69	AUTO	REF	REFRESH R FENDER EDGE				0 0.5
70	300020	BOY	REMOVE/REPLACE L FENDER PANEL		FTUZ 10000 AC	200.00	6000.00
71	AUTO	REF	REFRESH L FENDER OUTSIDE				0 1.0
72	AUTO	REF	REFRESH L FENDER EDGE				0 0.5
73	300000	BOY	REMOVE/REPLACE R FENDER SHORT PANEL		FTUZ 10100 AB	80.70	2421.00
74	AUTO	REF	REFRESH R FENDER SHORT				1.0
75	300000	BOY	REMOVE/REPLACE L FENDER SHORT PANEL		FTUZ 10100 AC	87.00	2610.00
76	AUTO	REF	REFRESH L FENDER SHORT				1.0
77	300000	BOY	REMOVE/REPLACE R FENDER APRON ASBY		FTUZ 10000 AD	40.00	1200.00
78	300000	BOY	REMOVE/REPLACE L FENDER APRON ASBY		FTUZ 10000 AE	40.70	1221.00
79	300000	BOY	REMOVE/REPLACE FENDER INSULATOR		FTUZ 10K101 A	30.00	900.00
80	300000	BOY	REMOVE/REPLACE R FENDER SPLASH SHIELD		FTUZ 10700 AB	17.07	512.10
81	300000	BOY	REMOVE/REPLACE L FENDER SPLASH SHIELD		FTUZ 10700 AC	17.07	512.10
82	300000	BOY	REMOVE/REPLACE R FENDER SHORT EXTENSION		N.A.	0.00	0.00
83	300000	BOY	REMOVE/REPLACE L FENDER SHORT EXTENSION		FTUZ 10C100 A	23.37	701.10
84	300000	BOY	REMOVE/REPLACE BLEED AIR SYSTEM				0.0
85	300000	BOY	REMOVE/REPLACE ABS CONTROL MODULE		FTUZ 20C10 BA	207.00	6210.00
86	300000	BOY	REMOVE/REPLACE ABS CONTROL UNIT		FTUZ 20C00 AM	300.00	9000.00
87	300000	BOY	REMOVE/REPLACE L FRT ABS SENSOR		XCEZ 20C00 BA	30.17	905.10
88	300000	BOY	REMOVE/REPLACE REAR ABS SENSOR		FTUZ 20C00 AB	11.11	333.30
89	300000	BOY	REMOVE/REPLACE DISABLE & ENABLE AIR BAG SYSTEM				0.0
90	300000	BOY	REMOVE/REPLACE AIR BAG MODULE-DRIVER SIDE		XL02 10000-13 MB	200.00	6000.00
91	300000	BOY	REMOVE/REPLACE OTR AIR BAG SENSOR		FTUZ 100000 DA	60.00	1800.00

ESTIMATE RECALL NUMBER: 3/16/2001 11:20:00 00

Michell Data Version: 4.5.004

SALE_01_A 4.5.004

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Date: 3/14/2001 04:43 PM
 Estimate No: 98
 Estimate Version: 0
 Preliminary Profile ID: Truck Profile

82	304802	BOH	REMOVED/REPLACE	R FRT SUSP BRAKE HOSE	-M	FRUZ 2078 A	32.33	0.5	\$
93	304803	BOH	REMOVED/REPLACE	L FRT SUSP BRAKE HOSE	-M	FRUZ 2079 C	32.30	0.5	\$
94	312808	BOY	REMOVED/REPLACE	R ENG SUPT MOUNT		FRUZ 0038 C	28.88	2.2	\$
98	312810	BOY	REMOVED/REPLACE	L ENG SUPT MOUNT		FRUZ 0039 GA	28.11	0.4	\$
99	312830	BOY	REMOVED/REPLACE	ENG SUPT TRANS MOUNT		EFTZ 0000 C	29.49	0.9	
17	334000	BOY	REMOVED/REPLACE	R ENG SUPT MOUNT BRACKET		FRUZ 0025 BB	25.67		
96	334002	BOY	REMOVED/REPLACE	L ENG SUPT MOUNT BRACKET		FRUZ 0029 GB	47.73		
99	308312	BOY	REMOVED/REPLACE	R ENG SUPT BRACKET		FRUZ 0036 A	31.78		
100	308313	BOY	REMOVED/REPLACE	L ENG SUPT BRACKET		FRUZ 0031 BA	38.39		
101	900000	BOH*	REMOVED/REPLACE	ENGINE COMPLETE ASSEMBLY		F01Z*0007*KA	14,185.80	* 14.0	
102	900000	BOH*	REMOVED/REPLACE	WIRING HARNESS ASSEMBLY-MM		X02Z*14007*DA	232.40	* 2.0	
103	900000	BOH*	REMOVED/REPLACE	WIRING HARNESS ASSEMBLY-D		X02Z*14200*AA	43.42	* 0.5	
104	900000	BOH*	REMOVED/REPLACE	WIRING HARNESS ASSEMBLY-WD		X02Z*14000*CA	297.80	* 2.0	
105	900000	BOH*	REMOVED/REPLACE	CLEANER ASSEMBLY		FRUZ*0007*AB	288.80	* 0.5	
107	900000	BOY*	REMOVED/REPLACE	FRONT TOP BUS BODY PANEL W/ LUMPS		Bodying			
107	900000	BOY*	REMOVED/REPLACE	SHOP SUPPLIES, OIL, ANTIFREEZE, ACCESSORIES		Bodying	188.80	* 0.5	
108	900000	BOY*	REMOVED/REPLACE	OPEN ITEMS (SEE REMARKS)		Bodying			
109	900000	BOY*	REMOVED/REPLACE	CLEAR COAT		Bodying			
110	AD70		ADD'L COST	PAINT/MATERIALS			888.80	* 0.5	
111	AUTO		ADD'L COST	HAZARDOUS WASTE DISPOSAL			6.00	* 0.5	

* - Judgment Item
 S - Labor Note Applies
 C - Included in Clear Coat Calc

Remarks:

OPEN ITEMS: ALL UNDER BASH WIRING, WIRING, STEERING ASSEMBLY COMPLETE, BASH PANEL, ECT.

L. Labor Subtotal	Units	Rate	Adj'd Labor Amount	Subst Amount	Total	I. Part Replacement Summary	Amount
Body	31.1	68.80	0.00	0.00	1,062.80	Taxable Parts	25,183.80
Paint	22.3	65.80	0.00	0.00	1,078.40	Sales Tax @ 7.200%	1,820.83
Mechanical	28.8	92.80	0.00	0.00	1,222.80	Total Replacement Parts Amount	26,022.80
Non-Taxable Labor					4,362.20		
Labor Summary					89.9		4,362.20
Taxable Costs							688.80
Sales Tax @ 7.200%							68.80
Non-Taxable Costs							6.00
Total Additional Costs							722.80
						II. Adjustments	Amount
						Customer Responsibility	6.00
						I. Total Labor:	4,362.20
						II. Total Replacement Parts:	26,022.80
						III. Total Additional Costs:	722.80
						Gross Total:	31,107.80

ESTIMATE RECALL NUMBER: 37142001 11:23:00 98

Michell Data Version: MAR_01_A
 Estimate Version: 4.0.04

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Date: 3/14/2001 04:43 PM
Estimate ID: 00
Estimate Version: 0
Profile ID: Truck Profile

N. Total Adjustments: 0.00
Net Total: 22,076.56

This is a preliminary estimate.
Additional charges to the estimate may be required for the actual repair.

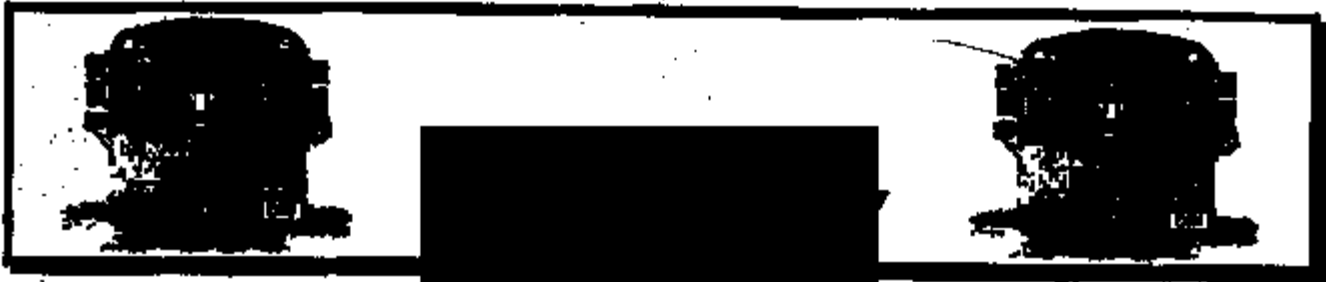
"This business is required to be licensed by the Secretary of State, pursuant to Illinois Revised Statutes, Chapter 96 1/2, Sec. 5-301. Any complaints as to the quality of service obtained here may be brought to the attention of the Attorney General." UDL No. 11326

ESTIMATE SERIAL NUMBER: 3142001 11:22:20 00

Ultrasite Data Version:
Ultrasite Version:

MAR_01_A
4.6.004

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TO: Virg

FIRM: Collins

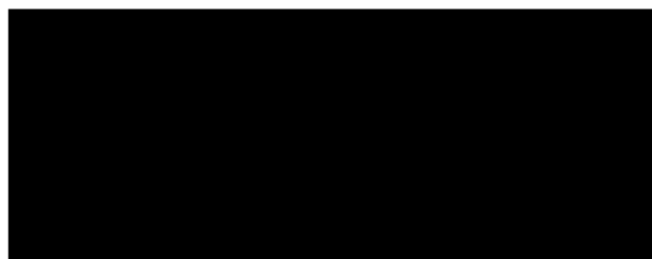
FROM: *Harold Groff, Area Maint. Mgr.*
CENTRAL/SOUTHERN ILLINOIS AREA

SUBJECT: van fire

TOTAL PAGES (INCLUDING COVER) 3

COMMENTS:

I have emailed other info requested



HAVE A SAFE DAY!!!

INCIDENT REPORT

Springfield Fire Department

DELETE
 CHANGE

A	FORD SB111	INCIDENT NO 01-00141B	EXP NO 00	MO 02	DAY 18	YR 01	DAY OF WEEK Thursday	ALARM TIME 17:38:00	ARRIVAL TIME 17:42:00	IN SERVICE 18:14:00	
B	TYPE OF SITUATION FOUND Vehicle Fire					TYPE OF ACTION TAKEN Extinguishment					MUTUAL AID <input type="checkbox"/> Read <input type="checkbox"/> Given
C	FENCED PROPERTY LINE Road, Parking Property					IGNITION FACTOR Other Elec. Failure					08
D	CORRECT ADDRESS										
E	[REDACTED]					CO. SA	TWN 12	ZIP CODE 62703	CENSUS TRACT 0906.00		
F						[REDACTED]					ROOM/APT NO
G	NUMBER OF REPORT FROM FOCUS Telephone Tie Line										
H	911 USED SB11		PERSONNEL RESPONDED 004		ENGINE RESPONDED 001		AERIAL APPARATUS 000		OTHER VEHICLES 000		
I	NUMBER OF INJURED FIRE SERVICE 000					NUMBER OF FATALITIES FIRE SERVICE 000					

J	COMPLEX No Complex					MOBILE PROPERTY TYPE Bus, Trackless Trolley				
K	AREA OF FIRE ORIGIN Engine Area, Running Gear					EQUIPMENT INVOLVED IN IGNITION Electronic Equipment				
L	FORM OF HEAT OF IGNITION Unspecified Short Circuit		TYPE OF MATERIAL IGNITED Material Not Classified		FORM OF MATERIAL IGNITED Not Classified					
M	METHOD OF EXTINGUISHMENT Preconnect w/Tank Water		LEVEL OF FIRE ORIGIN Grade to +5'		RETRICTED LOSS 48,000		ESTIMATED VALUE 48,000			

N	NUMBER OF STORES					CONSTRUCTION TYPE				
O	EXTENT OF FLAME DAMAGE					EXTENT OF SMOKE DAMAGE				
P	DETECTOR PERFORMANCE					SPRINKLER PERFORMANCE				

Q	IF SMOKE SPREAD BEYOND ROOM OF ORIGIN		TYPE OF MATERIAL GENERATING MOST SMOKE			DIRECTION OF SMOKE TRAVEL				
R			FORM OF MATERIAL GENERATING MOST SMOKE							

S	IF MOBILE PROPERTY	YEAR 00	MAKE FORD	MODEL F350/SCHOOL	SERIAL NO. 1FD0E37F6XHA5	LICENSE NO. 30 3888B
T	IF EQUIPMENT INVOLVED IN IGNITION	YEAR 00	MAKE FORD	MODEL F350/SCHOOL	SERIAL NO. 1FD0E37F6XHA5238	

(X) CHECK IF COMMENTS

U	OFFICER IN CHARGE (NAME, POSITION, ASSIGNMENT)		DATE
	Kraeger, BEM Captain		02/18/2001
	MEMBER MAKING REPORT (IF DIFFERENT FROM ABOVE)		DATE
	Kraeger, BEM Captain		02/16/2001

ALL INCIDENTS
FIRE
STRUCTURE

INCIDENT REPORT

Springfield Fire Department

FID	INCIDENT NO	EXP NO	MO	DAY	YR	DAY OF WEEK	ALARM TIME
SB111	01-001418	00	02	18	01	Thursday	17:29:00

NARRATIVE

ES ARRIVED TO FIND SCHOOL BUS FULLY INVOLVED IN THE ENGINE COMPARTMENT AREA. 1 3/4 LINE 180 GALLONS OF WATER USED TO EXTINGUISH. BUS WAS PARKED @ 1800 HRS (ALARM TIME 1736). DRIVER REPORTED THAT A ELECTRICAL/OVERHEATED SMELL WAS PRESENT WHEN THE REAR HEATER WAS IN USE, AND THAT IT WAS REPORTED THE DAY BEFORE (2-14-01). NO FOUL PLAY SUSPECTED. NOTE: THE UNIT WAS DIESEL POWERED/7.4 LITRE POWER STROKE.
 02/18/2001 19:08 ESI Kruger

Subject: [Fwd: FW: Ford/Collins van fire]

Date: Mon, 26 Feb 2001 15:23:20 -0600

From: [REDACTED]

Organization: Collins Bus Corporation

To: Virgil Schremmer <virgil.schremmer@collinsbus.com>, Bryce Pfister <bryce.pfister@collinsbus.com>, Don Derr <don.derr@collinsbus.com>, DeWayne Lock <dewayne.lock@collinsbus.com>, Jim Elliott <jim.elliott@collinsbus.com>

As soon as we have any opinion or directions for Laidlaw, please advise.

Carol

Subject: FW: Ford/Collins van fire
Date: Mon, 26 Feb 2001 14:47:21 -0600
From: mike_shanley@psg.com
To: carol.walle@collinsbus.com

Invoice 6/2/99

Around 15,000 miles

-----Original Message-----
From: Groff, Harold
Sent: Wednesday, February 21, 2001 10:34 AM
To: Shanley, Mike
Cc: Weyant, Scott; Stanley, Steve
Subject: Ford/Collins van fire

*217-545-3443
1/13/02*

*17855 FGB-11
message 23,000*

The asset # is 931239. We inspected again, along with other like vans. The place where the wire is welded to the frame is rubbing on the other vans as well. It is located on the left side behind the power steering pump. It is the main cable from the battery to give the body power source. There is circuit breaker protection, however, from the wire being welded to the frame it is apparent it did not work adequately. I will be in Springfield tomorrow morning to take additional pictures of the rubbing on the other vans. I want to have Steve Stanley at Bartonville check this out on his vans, but he is not at work today. I hope he will be there tomorrow, and I'll let you know if he is able to come up with anything else.
Harold.

*Harold
Left Message 8/13/01 No Return Call
Left Message 8/14/01 out the office*

Subject: [Fwd: FW: van fire]

Date: Mon, 26 Feb 2001 09:49:57 -0600

From: "Carol M. Walle" <carol.walle@collinsbus.com>

Organization: Collins Bus Corporation

To: Bryce Pfister <bryce.pfister@collinsbus.com>,
DeWayne Lock <dewayne.lock@collinsbus.com>,
Virgil Schremmer <virgil.schremmer@collinsbus.com>

More info

P. S. to Bryce - I will let you decide when/if to involve Rod?

Subject: FW: van fire

Date: Mon, 26 Feb 2001 09:01:11 -0600

From: mike_shanley@lpsg.com

To: carol.walle@collinsbus.com, jim.elliott@collinsbus.com

CC: odreyer@ford.com, don_dilks@red.lpsg.com, doug_dodd@red.lpsg.com,
david_perard@red.lpsg.com, john_giamme@red.lpsg.com, harold_groff@red.lpsg.com,
ken_johnson@red.lpsg.com, darin_marshall@red.lpsg.com, hill_moore@red.lpsg.com,
ken_mulder@red.lpsg.com, marty_mussotter@red.lpsg.com, mike_norden@red.lpsg.com,
jim_perrigue@red.lpsg.com, bob_pudlewski@red.lpsg.com, jay_ramos@red.lpsg.com,
ray_smith@red.lpsg.com, tom_saldonia@red.lpsg.com, gregg_stinson@red.lpsg.com,
bernie_vardzel@red.lpsg.com

FYI

-----Original Message-----

From: Groff, Harold
Sent: Monday, February 26, 2001 8:40 AM
To: Shanley, Mike
Subject: FW: van fire

Steve believes the fire started in the chassis power distribution box. In that box there are 4.60amp and 1.50 amp breakers. The power source is from the battery to a 30amp breaker mounted on a tray on the right side. Steve disassembled that 30amp breaker, and it was fused together. He believes the 30amp breaker is inadequate protection to the power distribution box. The body wires were not burned. The fire apparently burned from the box back. How do we proceed from here?
Harold.

-----Original Message-----

From: Stanley, Steve
Sent: Friday, February 23, 2001 3:23 PM
To: Groff, Harold
Subject: van fire

Wow! what a mess. I looked at it and traced wires and looked at other units like it. I don't believe that wire that was welded to body came after the fire started. If I had to make a guess I would have to say it probably started at the power distribution box. With this I removed and took apart the two 30a circuit breakers and the contacts were fused together..

The action that I would take is to replace these circuit breakers with a breaker that has to be reset manually. This type of breaker is now used on Ricon wheel chair lift installs. I believe that if the body

manufacture had used this type of breaker the fire would not of happened. Their would of just been a simple short to repair.

Shop manager
Steve Stanley

Subject: [Fwd: FW: Ford/Collins van fire]

Date: Mon, 26 Feb 2001 09:45:03 -0600

From: "Carol M. Walle" <carol.walle@collinsbus.com>

Organization: Collins Bus Corporation

To: Bryce Pfister <bryce.pfister@collinsbus.com>

DeWayne Lock <dewayne.lock@collinsbus.com>

Virgil Schremmer <virgil.schremmer@collinsbus.com>

I have not looked at pic yet.

Subject: FW: Ford/Collins van fire

Date: Mon, 26 Feb 2001 08:58:34 -0600

From: mike_shanley@lpsg.com

To: carol.walle@collinsbus.com, jim.elliott@collinsbus.com


CC: edreyer@ford.com, don_dilks@red.lpsg.com, doug_dodd@red.lpsg.com, david_gerrard@red.lpsg.com, john_giamone@red.lpsg.com, harold_groff@red.lpsg.com, lon_johnson@red.lpsg.com, darrin_marshall@red.lpsg.com, bill_moore@red.lpsg.com, ken_mulder@red.lpsg.com, marty_mussotter@red.lpsg.com, mike_ogden@red.lpsg.com, jim_perigoue@red.lpsg.com, bob_pudlewski@red.lpsg.com, jay_ramos@red.lpsg.com, ray_smith@red.lpsg.com, tom_soldonia@red.lpsg.com, gregg_stinson@red.lpsg.com, bernie_yardzel@red.lpsg.com


Carol & Jim, I am sending you two e-mails in regards to a fire we had with a 99 Ford Collins in Springfield Ill. that you need to look into. Please give me a call after you have read them. (630-955-0003) Thanks

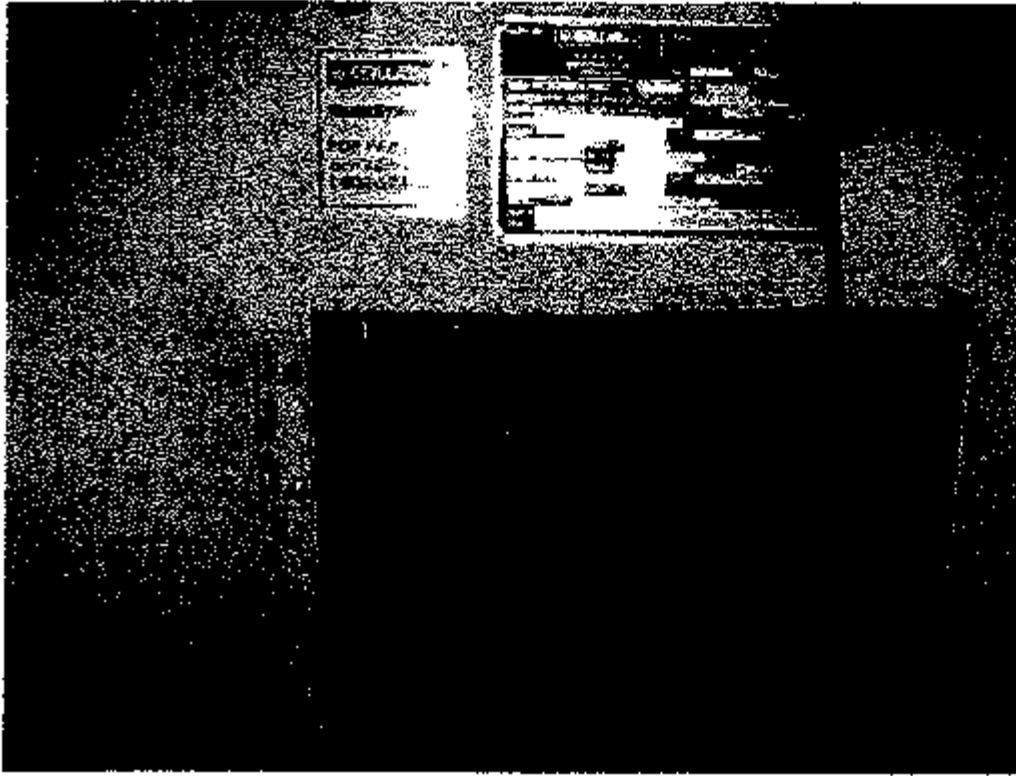
-----Original Message-----

From: Groff, Harold
Sent: Tuesday, February 20, 2001 2:35 PM
To: Shanley, Mike
Cc: Cotter, Brian; Weyant, Scott
Subject: Ford/Collins van fire

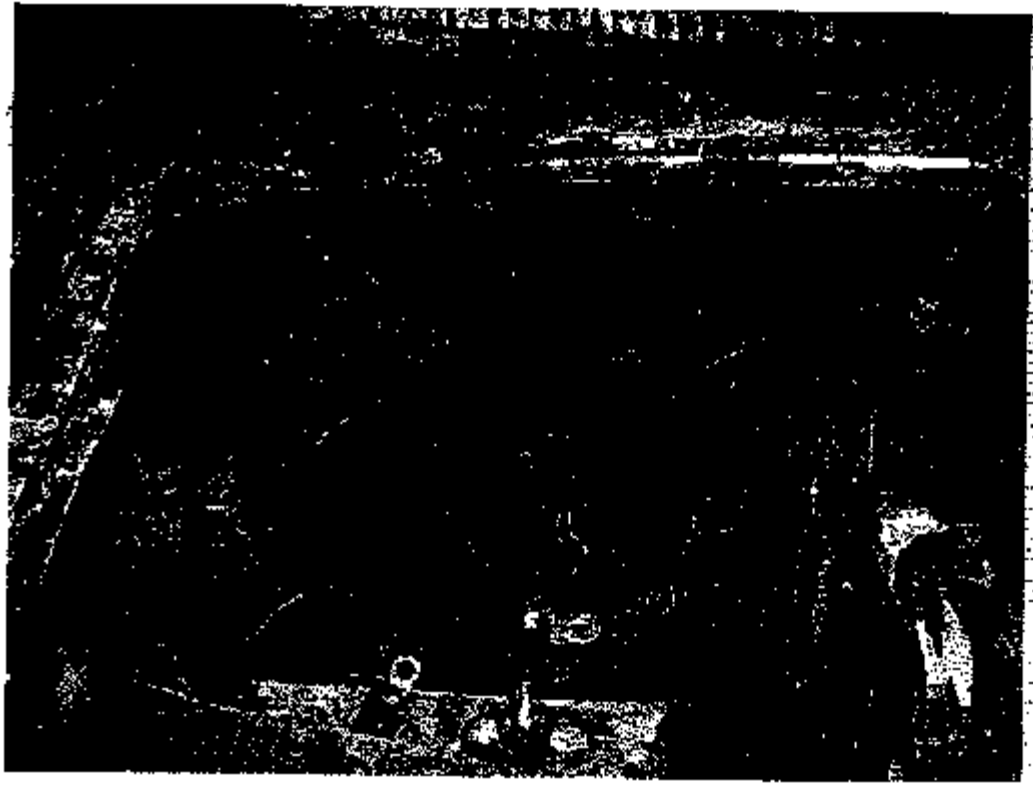
At 5:30 p.m. fuelers noticed smoke coming from under hood. Mechanic attempted to put out with fire extinguisher, but was unable. Fire department extinguished fire. All wiring under hood is completely burned. Fire did not reach Collins wiring inside bus (note picture). Wiring was welded to frame in picture 4. How shall we proceed?
Harold.

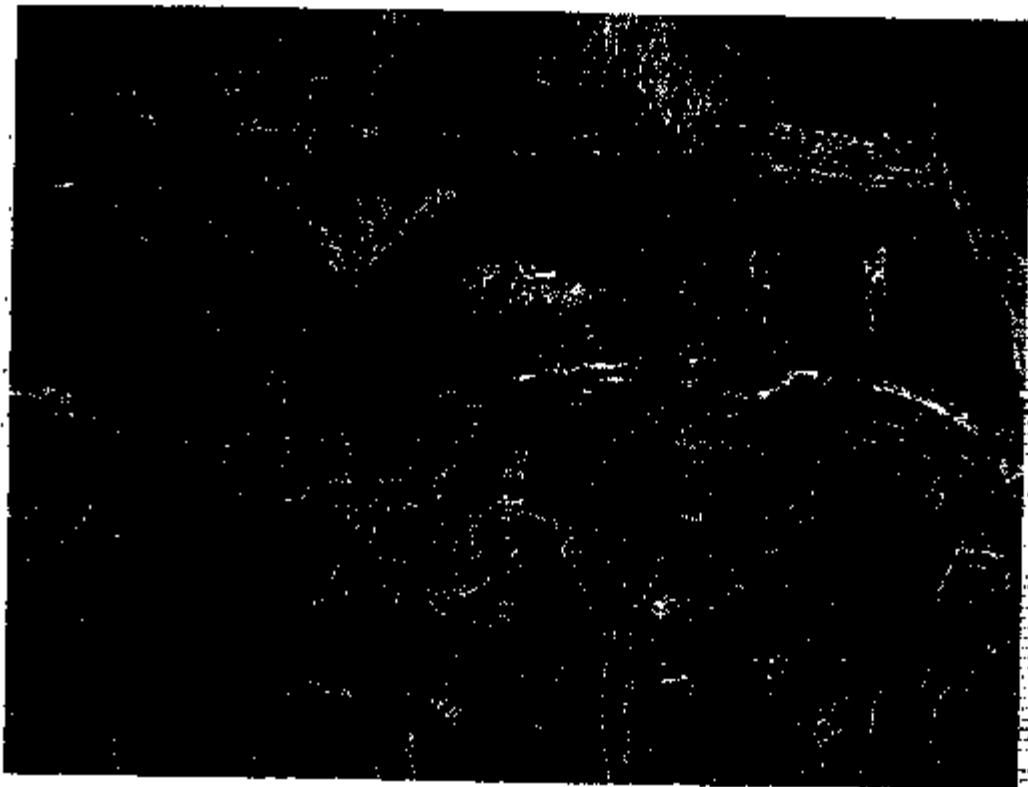
 Name: 1.jpg
Type: JPEG Image (image/jpeg)
Encoding: base64

 Name: 2.jpg
Type: JPEG Image (image/jpeg)
Encoding: base64









COLLINS BUS CORPORATION

Memo This document contains time-sensitive information. Please read immediately and respond as specified.

To Phil Mulvey, Jim Elliott

From Virgil Schrenmer

Date 3/29/01

Subject Unk No. 17855 FGB-11 - [REDACTED]

This bus fire was started by the cable rubbing on a sharp metal edge that goes to the upper electrical panel. The routing was incorrect, also the circuit breaker failed. This is a warranty issue.

The bus was built 6/21/99

Paid for 7/9/99

Registration date 1/01/00

Mileage 23,000

This falls into our warranty 24,000 miles or two years.

How do you want me to proceed? There are three estimates: #32,038.55, \$22,153.90 and \$18,853.74.

Our cost on a new bus:

Chassis - 14K - ~~\$22,766~~

10K - \$22,766

Body - \$12,925

Recommend

Rebuild or cost @ \$12,000



JSC
3/30/01

Please advise. Thank you.

P.O. Box 2946

Hutchinson, KS 67504

800-533-1850 ext. 424

620-662-8484 Fax

virgil.schrenmer@collinsbus.com

Attachment 3

Paramus, New Jersey

Ford [REDACTED] Best Wiring Practices Meeting

December 3, 2002

Attendees:



Ford
Charles Davis
Ken Dobiesz
Tom Dusantis
Orrin West

Collins
Bill Wise

Met with [REDACTED] personnel and Ford engineers at [REDACTED] facilities in Clarksburg, New Jersey to discuss schoolbus bodybuilders wiring practices. Other attendees were engineers from the Corbeil schoolbus company. Ford provided handouts with pictures of various schoolbus manufacturers wiring practices that had the potential to cause wiring failures in the future. The majority of the potential problems dealt with wires that were pinched due to the addition of equipment into the engine compartment, rusted contacts on added breakers and power studs, abrasion of power cables against fasteners, wires going through holes in metal without grommets, hot wires running alongside ground wires, and unsecured wiring which allowed it to interfere/rub against other objects. The elimination of these potential problems should be the goal of all school bus manufacturers.

The use of under powered alternators was discussed. Though this is not a fire hazard, it is a nuisance when the batteries drain over time because the alternator is not able to keep up with the drain caused by buses that spend a considerable amount of time at idle, or extensive use of the W/C lift. Fords standard alternator is 130 amps, Ford recommended to [REDACTED] that in the future they may want to order their two 110 amp alternator package. Collins does provide a 200 amp alternator option which uses a Penntax alternator. There was a little concern as to whether the OEM wiring is sized sufficiently to be able to handle the 200 amp alternator replacement, however Collins does upgrade the OEM wiring when installing the 200 amp alternator option. Ford stated that a 200 amp alternator package can be ordered from them with a specifically designed wiring system.

[REDACTED] had on their premises two Collins 1999 buses that had caught fire in the engine compartment due to electrical problems. Ford provided to Collins and [REDACTED] pictures and their perspective as to how these fires started. One bus VIN 1FDSE37F2[REDACTED], Ford felt this bus started on fire due to a short caused by a add on accumulator bottle that pinched the OEM alternator/starter fusible links. Collins was to look into when we add on a accumulator. After some research it has been found that since the early 1990's all of the Ford chassis that are purchased by Collins are bought with front air conditioning with the accumulator installed; the only time Collins has to add a accumulator is if a customer provides the chassis and has not purchased it with front A/C already installed which has happened in the past with customers. In the future Collins needs to assure that any add-on accumulators do not pinch any wiring/fusible links after their installation. Collins does not have enough information to agree or disagree with Ford's opinion as to the cause of this fire.

The other Collins bus, VIN 1FDSE37F8, [REDACTED] Ford felt the cause of the fire may have been due to a add-on circuit breaker that was not water proof and had failed due to rust, also there was wiring found near sharp surfaces. Though these are potential hazards Ford was not absolutely sure that either of these were the cause of the fire. As in the previously mentioned bus fire discussion Collins does not necessarily concede that the cause of these fires is what Ford is proposing.

[REDACTED] then discussed with Collins the older style bus and how its electrical panel mounts inside the electrical cabinet. The panel is supported by metal straps that are screwed into the bus structure and skins of the bus. Sometimes the screws fastening the straps to the bus will vibrate out causing the panel be able to vibrate in place and with the potential of wiring becoming unplugged from its connectors. [REDACTED] is able to fix this problem themselves but they would like Collins to suggest a fix and provide parts to eliminate the strap screws from coming out. Collins stated that the decision to act on this would be up to the warranty department, and/or sales and engineering managers since these are buses that are at least a year old. The new 2001 bus design does not have this problem. Laidlaw also suggested that Collins look into providing a cover over the power studs, and circuit breakers inside the engine compartment to keep them from getting wet, rusting and shorting out.

Overall the task that Collins takes away from this meeting is to better assure safe wiring practices are being practiced as discussed at the beginning of this meeting, i.e. eliminate the following: kinked or pinched wires, potential for rusted contacts on added breakers and power studs, abrasion of power cables against fasteners, wires going through holes in metal without grommets, hot wires running alongside ground wires, and unsecured wiring which allows it to interfere/rub against other objects. Provide a cover over the engine mounted relays/power studs if they are not water proof to avoid a short. Also a cover over the power stud will reduce the likelihood of a short occurring if a tool or other metal object should fall accidentally into the engine compartment and land on top the power stud.

Ford Motor Company

Product Development

Parklane Towers West, Suite 628
Three Parklane Boulevard
Dearborn, Michigan 48128
FAX: 313-594-4822

September 26, 2001

Mr. Charles Dreyer
Ford Motor Company
North American Fleet Services
Buffalo District Offices - Bldg 3017
80 Aero Drive
Buffalo, NY 14225

Re: [REDACTED] Bus Vehicle Fires

Subject: Report on fire and related investigators.

Dear Charles,

At your request, this office recently conducted investigations of two Laidlaw bus vehicle fires. One fire investigation was at the [REDACTED] facility in Clarksburg, NJ and the other was at the [REDACTED] facility in Springfield, IL. Both vehicles were 1999 Econolines, converted by Collins Bus Corporation, and both had 7.3 L Diesel engines.

The initial inspection of the NJ bus was on Mar. 23, 2001 with a follow up inspection on June 4, 2001. Photo # 1, attached, taken during the first inspection shows a fire pattern that originated from the lower right (passenger side), near the headlamp, to the upper left. Note that the upper left warning lights were melted, but the upper right were virtually un-damaged. This indicates that as the fire proceeded up and outward, as expected with most fires, it was also affected by a breeze from the right side to the left side of the vehicle.

The cause of this fire was found at the origin of the fire pattern where a B+ (battery positive) wire short-circuited to a ground stud nut next to the starter relay, as shown on photos #s 2, 3, and 4. This point is located in the engine compartment just above the passenger side headlamp. This wire was found misrouted above the starter relay and not properly secured. This resulted in the wire chaffing against the nut and eventually short-circuiting. As built by Ford, this wire is routed down and away from this stud and is secured to the battery tray support bracket and the front end sheet metal as shown on photos # 5, 6 and 7. The two yellow wires in photo 5 are fuse links at the end of the B+ wire and correspond to the two bare smaller wires at the end of the cable in photo # 4.

The starter relay on this vehicle had been replaced. The body ground wire was also cut off at the attaching tab/eyelet at the ground stud on this vehicle, as it was on another vehicle (photo # 8), creating a sharp edge in the area of the misrouted wire. These two factors may also have contributed to this fire.

This fire pattern does not support an origin of the fire at the alternator because as shown in photo # 9, the fire damage to the engine compartment is greater to the right of the alternator, the direction from which

the breeze was coming. Analysis of the returned alternator, discussed later in this report, also does not support an origin at the alternator.

The bus at the Springfield, IL facility was also inspected on two occasions. The initial inspection was on April 3, 2001 and a follow up was conducted on June 8, 2001. Photos #s 10 and 11 clearly show that the fire originated in the engine compartment on the left (driver) side. Photo # 12 shows that the insulation on all of the wiring on the left side of the engine compartment was completely consumed, while photo # 13 of the right side of the engine compartment shows much insulation intact.

Although no cause was found for this fire, it is most likely electrical since it occurred two hours after the vehicle was shut off. A fault, such as, a grounded circuit, beaded wire, or stiff cable, which could lead to a definitive cause, was not found on this vehicle. The alternator is not the source of this fire.

A review of NHSTA data and Ford data for this type of vehicle indicate there is no electrical concern, which could cause a fire.

Additionally, as part of this investigation four alternators returned by Laidlaw for analysis. The analysis revealed the following:

Alternator with Part No. F6UA-10300-EA was from the NJ incident vehicle with 34,308 miles on it. It had a grounded battery cable at the rear and a missing rear bearing. Both of these conditions are believed to have been caused by the vehicle fire; neither was a source of the fire.

Alternator with Part No. F5UU-10300-BA was from a vehicle with VIN 1FDSE37F8 [REDACTED] a 1999 E-350, and it was found to be fully functional. There was a signs of front bearing wear and the bearing seal was broken. There was no indication of mileage for this vehicle.

Alternator with Part No. F3UU-10300-AF had a build date of 1994 and it had a front bearing failure with discoloration on the rotor shaft. No indication of mileage was provided.

Alternator with no Part Number was an aftermarket part. It had a front bearing failure. No indication of mileage was provided.

The alternators provided do not indicate a premature failure trend.

An analysis of alternator capacity versus demand was also conducted on a Laidlaw bus from Oak Park, MI. This testing showed a peak demand of 68 amps could occur in winter with front and rear heater, flashers, strobe light and headlamps on. At idle the alternator produces 56 amps. These conditions would meet the requirements of enough battery reserve capacity to start an engine after 10 hours of the Ford City Load Drive Cycle or two hours at idle.

There were, however, some concerns with the electrical systems found on these vehicle and other Laidlaw vehicles, which you may want to investigate further. A circuit and a circuit breaker are added to the production to by pass the fuse for the IDM (injector driver module) in the engine fuse box, located in the right side of the engine compartment. The lead from this fuse on one vehicle inspected was cut and an open-ended connector was attached to the end of it, photo # 14. This could lead to a resistive short. The circuit breaker contacts for this circuit on the IL vehicle were electrically burned away as shown as shown on photos #15 and # 16. On another vehicle inspected this circuit breaker, photo #17, shows signs of corrosion.

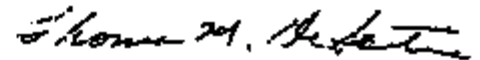
It is recommended that the electrical practices provided in the Ford Incomplete Vehicle Manual be followed to reduce the risk of vehicle fires. Two practices that are particularly relevant to these vehicles are:

"Wiring be routed away from hostile surfaces and sharp edges and be secured in its intended location."

"Electrical connections exposed to the elements should be appropriately protected."

If I can be of any further assistance in this matter, please contact me.

Sincerely,



Thomas M. De Santis
Design Analysis Engineer



PRODUCT INCIDENT OR CLAIM REPORT

PRODUCT IDENTIFICATION:

MODEL: 1FDSE37F2XHA TYPE: 1

SERIAL #: [REDACTED] DOT: [REDACTED]

CUSTOMER IDENTIFICATION:

[REDACTED]

INCIDENT LOCATION/INCIDENT DATE

Shannon, Mo. 2/23/01

INJURED PARTY

Name NONE Age _____
Address _____

DESCRIBE PROPERTY DAMAGE

Fine

DESCRIBE INJURY

NONE

WITNESSES

Driver of the Bus

DESCRIBE INCIDENT

Bus caught fire from under hood

DESCRIBE CAUSE

COMMENTS & RECOMMENDED ACTION

Report from customer is attached

OFFICE COMMENTS

BY [Signature]
OFFICE _____

TITLE Customer Service Manager
SUPERVISOR [Signature]

DATE 2/23/01

MAILING ADDRESS:
100 WEST 8TH STREET
HUTCHINSON, KS 67508
862-8000

MAILING ADDRESS:
P.O. BOX 2948
HUTCHINSON, KS 67504-2948
FAX (316) 862-3836

[REDACTED]

December 19, 2002

Mr. Jim Elliott
Collins Bus Corp.
415 West 6th
South Hutchinson, KS 67504

Dear Jim,

I first want to thank Collins Bus for their involvement in the "Best Electrical Practices" program presented recently by Ford Motor Company in Clarksburg, NJ. As you know, this meeting was organized in response to the high number of electrical fires that we've experienced over the last two years. I'm quite confident that all participants (Ford included) left with a better understanding of chassis to body "transitional" wiring requirements.

When reviewing the current wiring practices of Collins in the production of their Type A, the following concerns were uncovered and discussed:

- Use of "non-waterproof" primary body circuit breakers.
- Improperly secured body wiring within interior overhead compartment.

It is the feeling of [REDACTED] Maintenance Council that changes must occur in the production process to help eliminate the potential for future fires. We also feel that "campaigns" should be issued in order to make the necessary modifications/improvements to our existing fleet, once again, to help minimize the potential for future fires.

Lastly, as the evidence presented in Clarksburg was somewhat inconclusive in determining the specific origin of the fires, I'm requesting that Collins reimburse Laidlaw for the Net Book Value of the bus bodies at the time of loss.

Asset # 931239	Body # 17855	Value - \$11,195.00 <i>OK to pay</i>
Asset # 918819	Body # 17176	Value - \$13,232.00 <i>- DENY -</i>

I will arrange to have our Buffalo Warranty Center submit claim for these amounts through normal warranty channels, unless you'd prefer that it be handled in a different way.

Once again, I appreciate the high level of involvement that Collins Bus has displayed in this matter. I'm confident that by working together, we can put this issue to rest very soon.

Sincerely,



Stephen T. Halriegel
Director of Maintenance

cc:

[REDACTED]
B. Pfister - Collins
[REDACTED]

[REDACTED]

5/2/01

Thomas Ford Eng

Mark Hoffman Ford Eng

Robert Brady Ford Body Builder

Don Dean - Bryce - Tracy

They ask about the breakers Don told them there was 2 Relays 30 Amp breakers IEM Relay + 50th 80 Amp breaker that feeds the longer cable that leads to the overhead

Mark or Thomas

Said the high impedance load spike possible cause of breaker problems

Don has alternator problems we told them that we didn't see there was a problem.

They also said that the fire started on the Passenger side appears to

Repower IEM relay when Battery's are moved Robert Bailey knew about this - Thomas + Mark didn't know anything about it.

5/11

Thomas from Ford called Don Bryce, Tracy talk a little bit about the fire in NJ it started on the driver side of the car in New Jersey started on the passenger side talk a little bit about alternator problem again Ronnie from Buckles was his contact. He was going to the west coast on 5/2/01

5/22/01

Steve Helms 630-848-3016 from Naperville Regional Mgmt. Manager ask me if I knew anything about bus in New Jersey I told him we found about a week or so. He also ask me about the bus in IL & what cause the fine I told him that our Electrical Eng. Department was looking into it. I talk to Rod about this he said call them back tomorrow & tell them the wire was routed incorrectly on that bus.

5/30

Steve Helms call me ask if I found out anything about the bus in IL. I told him that a wire was routed incorrectly on just that bus. Also he ask me about the bus in New Jersey I said we understood that was a alternator problem. I told him again that Collins would pay 12,000 Cash or rebuild for 18,000 Est. He said that he would talk to Mike Shanley.