

EA02-025

FORD

10/27/03

BOOK 29 OF 61

PART 1 OF 5

BOX 23 OF 28

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W455W3ML
 TEST DESC: MALFUNCTION
 TEST DATE: 05 MAY 91
 DATAFILE : W455W3ML

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
109	RR EXH. HANGER	210.1	119.9 @09:10:28 @ 0.0 m	284.9 @10:10:28 @ 60.0 m	45.1	DEG F
110	FRT U-JT AMB	193.9	138.9 @09:10:28 @ 0.0 m	240.9 @11:08:28 @ 118.0 m	35.5	DEG F
111	ENG MNT LH	170.1	150.2 @09:10:28 @ 0.0 m	192.8 @09:38:28 @ 28.0 m	13.4	DEG F
112	ENG MNT RH	192.2	133.0 @09:10:28 @ 0.0 m	223.2 @11:08:28 @ 118.0 m	25.6	DEG F
113	ENG MNT RR	187.9	146.6 @09:12:28 @ 2.0 m	212.9 @11:08:28 @ 118.0 m	21.1	DEG F
114	TRANS PAN GASKET LH	218.1	183.6 @09:10:28 @ 0.0 m	236.6 @11:08:28 @ 118.0 m	16.7	DEG F
116	SPEED SENSOR	209.5	80.2 @09:14:28 @ 4.0 m	411.9 @09:26:28 @ 16.0 m	35.4	DEG F
118	TRAN ELEC CONN LH RR	202.9	153.3 @09:10:28 @ 0.0 m	236.2 @11:10:28 @ 120.0 m	24.9	DEG F
119	TRANS BELHSG LH	213.3	167.3 @09:14:28 @ 4.0 m	240.3 @11:08:28 @ 118.0 m	22.9	DEG F
120	TRANS BELHSG RH	217.2	177.3 @09:12:28 @ 2.0 m	235.4 @11:08:28 @ 118.0 m	16.8	DEG F
121	TRAN EXT HSG GASKET	215.6	185.3 @09:10:28 @ 0.0 m	227.9 @11:08:28 @ 118.0 m	11.7	DEG F
122	TRAN EXT HSG BUSHING	212.0	179.6 @09:10:28 @ 0.0 m	226.4 @11:08:28 @ 118.0 m	11.8	DEG F

TABULAR DATA SUMMARY REPORT

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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
123	TRAN FILL TUBE SKIN	214.5	175.6 @09:12:28 @ 2.0 m	232.5 @10:20:28 @ 70.0 m	17.3	DEG F
124	TRAN FILL TUBE SEAL	206.3	145.7 @09:12:28 @ 2.0 m	231.3 @11:06:28 @ 116.0 m	25.7	DEG F
125	TRAN CASE @MAN LEV	217.3	180.8 @09:10:28 @ 0.0 m	235.2 @11:08:28 @ 118.0 m	16.1	DEG F
126	TRAN MLPS	218.6	150.8 @09:10:28 @ 0.0 m	250.8 @10:32:28 @ 82.0 m	28.9	DEG F
127	TRAN BULKHEAD CONN	201.3	159.8 @09:10:28 @ 0.0 m	230.4 @10:12:28 @ 62.0 m	18.8	DEG F
128	SHIFT CABLE @EXH MAN	222.6	145.3 @09:10:28 @ 0.0 m	284.7 @11:08:28 @ 118.0 m	43.1	DEG F
129	SHIFT CABLE @ LOC	192.1	128.2 @09:10:28 @ 0.0 m	252.2 @11:08:28 @ 118.0 m	43.2	DEG F
130	SHIFT CABLE @MAN LEV	214.7	132.1 @09:10:28 @ 0.0 m	287.6 @11:08:28 @ 118.0 m	52.4	DEG F
131	SHIFT CABLE @EXH MAN	241.2	147.1 @09:10:28 @ 0.0 m	303.7 @10:12:28 @ 62.0 m	51.2	DEG F
132	SHIFT CABLE @EXH MAN	218.9	138.1 @09:10:28 @ 0.0 m	269.2 @11:08:28 @ 118.0 m	40.0	DEG F
133	SHIFT CABL @ ENG FIT	211.9	137.6 @09:10:28 @ 0.0 m	266.2 @11:08:28 @ 118.0 m	40.7	DEG F
135	FUEL FILTER	134.8	111.4 @09:10:28 @ 0.0 m	145.9 @11:06:28 @ 116.0 m	10.1	DEG F

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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
136	FUEL LINE AT FILTER	129.3	110.3 @09:10:28 @ 0.0 m	139.3 @11:06:28 @ 116.0 m	8.5	DEG F
137	FUEL RET LINE @ TANK	144.6	114.9 @09:10:28 @ 0.0 m	158.2 @11:16:28 @ 126.0 m	10.9	DEG F
138	FUEL SUP LINE @ TANK	146.2	116.6 @09:10:28 @ 0.0 m	156.5 @11:12:28 @ 122.0 m	10.8	DEG F
139	FUEL TANK SKIN FRT	143.2	117.8 @09:10:28 @ 0.0 m	156.0 @10:08:28 @ 58.0 m	7.2	DEG F
140	FUEL PUMP FLANGE	139.9	112.8 @09:10:28 @ 0.0 m	149.7 @11:10:28 @ 120.0 m	9.2	DEG F
141	FUEL LINE AT SENDER	143.4	117.5 @09:10:28 @ 0.0 m	153.2 @11:06:28 @ 116.0 m	9.2	DEG F
142	FUEL LINE PLAS. CONN	158.0	117.6 @09:10:28 @ 0.0 m	174.7 @10:14:28 @ 64.0 m	14.1	DEG F
143	FUEL IN TANK	133.7	109.1 @09:10:28 @ 0.0 m	144.3 @11:08:28 @ 118.0 m	10.4	DEG F
144	PARK BRK CABLE @AXLE	165.7	120.1 @09:10:28 @ 0.0 m	204.6 @10:10:28 @ 60.0 m	23.5	DEG F
145	AIR SPRING UP CAP RH	168.1	126.0 @09:10:28 @ 0.0 m	184.9 @10:14:28 @ 64.0 m	18.2	DEG F
146	AIR SPRING SLV RH RR	173.3	120.8 @09:10:28 @ 0.0 m	199.0 @10:12:28 @ 62.0 m	19.1	DEG F
147	AIR SPRING SOLE. RH	171.9	125.2 @09:10:28 @ 0.0 m	198.5 @10:14:28 @ 64.0 m	21.0	DEG F

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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
148	ABS SENS WIRE RH RR	165.6	124.5 @09:10:28 @ 0.0 m	202.2 @10:06:28 @ 56.0 m	23.8	DEG F
149	A/CLEAN ELEMENT SEAL	184.5	141.4 @09:10:28 @ 0.0 m	206.7 @11:10:28 @ 120.0 m	21.4	DEG F
150	A/C CYCLING SWITCH	181.6	143.3 @09:10:28 @ 0.0 m	201.3 @11:08:28 @ 118.0 m	15.9	DEG F
151	SHIFT CABLE BRACKET	214.7	143.3 @09:10:28 @ 0.0 m	262.9 @11:08:28 @ 118.0 m	36.9	DEG F
152	SHIFT CABLE @ UBC	225.7	147.2 @09:10:28 @ 0.0 m	278.8 @11:08:28 @ 118.0 m	42.0	DEG F
153	SFT CABLE 10"RR BRKT	25.0	-42.4 @10:12:28 @ 62.0 m	147.5 @11:38:28 @ 148.0 m	49.2	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W455WST
 TEST DESC: CLASS I T.TOW
 TEST DATE: 05 MAY 91
 DATAFILE : W455WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
2	MANIFOLD VACUUM	8.7	-0.1 @08:18:50 @ 122.0 m	18.3 @07:28:50 @ 72.0 m	7.8	IN HG
5	ENGINE SPEED	976.5	-9.0 @08:16:50 @ 120.0 m	1774.0 @06:16:50 @ 0.0 m	639.6	RPM
6	VEHICLE SPEED	17.3	0.0 @07:16:50 @ 60.0 m	75.0 @06:16:50 @ 0.0 m	25.1	MPH
11	AMBIENT	121.6	100.2 @06:34:50 @ 18.0 m	150.4 @08:28:50 @ 132.0 m	17.9	DEG F
12	TOP WATER	236.0	212.1 @06:16:50 @ 0.0 m	247.1 @08:22:50 @ 126.0 m	8.9	DEG F
13	ENGINE OIL	243.5	201.4 @08:44:50 @ 148.0 m	268.2 @07:08:50 @ 52.0 m	16.6	DEG F
14	TRANSMISSION FLUID	237.0	210.9 @06:34:50 @ 18.0 m	258.0 @07:26:50 @ 70.0 m	14.8	DEG F
15	POWER STEERING FLUID	225.8	195.7 @06:34:50 @ 18.0 m	242.9 @08:14:50 @ 118.0 m	13.9	DEG F
16	UHOOD AMB X LF/RR	194.8	146.5 @06:30:50 @ 14.0 m	220.1 @08:20:50 @ 124.0 m	23.1	DEG F
17	UHOOD AMB X RF/LR	190.6	146.4 @06:30:50 @ 14.0 m	213.8 @08:18:50 @ 122.0 m	21.8	DEG F
18	ACT CONNECTOR	186.5	116.9 @06:32:50 @ 16.0 m	215.7 @08:20:50 @ 124.0 m	29.8	DEG F
19	ECT CONNECTOR	203.4	168.8 @06:32:50 @ 16.0 m	232.4 @08:30:50 @ 134.0 m	19.8	DEG F

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VEH. ID : XXXXXXXXXX
 TEST ID : W455WST
 TEST DESC: CLASS I T.TOW
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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
20	TP SENSOR	193.4	162.9 #06:32:50 @ 16.0 m	212.7 #08:14:50 @ 118.0 m	17.5	DEG F
21	CRANK POSITION SEN.	196.5	169.8 #06:32:50 @ 16.0 m	214.3 #08:14:50 @ 118.0 m	15.5	DEG F
22	CAM POSITION SEN.	210.9	182.5 #06:32:50 @ 16.0 m	232.4 #08:24:50 @ 128.0 m	15.5	DEG F
23	EDIS MODULE (1)	170.1	121.1 #06:34:50 @ 18.0 m	216.5 #08:14:50 @ 118.0 m	34.8	DEG F
24	EDIS MODULE (2)	169.7	120.9 #06:34:50 @ 18.0 m	214.9 #08:14:50 @ 118.0 m	34.1	DEG F
25	LH IGNITION COIL AMB	196.1	153.6 #06:28:50 @ 12.0 m	219.0 #08:18:50 @ 122.0 m	20.3	DEG F
26	RH IGNITION COIL AMB	194.3	153.2 #06:30:50 @ 14.0 m	214.5 #08:24:50 @ 128.0 m	20.2	DEG F
27	OIL PRESSURE SENDER	218.9	180.8 #06:16:50 @ 0.0 m	234.7 #07:18:50 @ 62.0 m	16.1	DEG F
28	H2O TEMP SENDER	220.2	205.2 #06:16:50 @ 0.0 m	240.9 #08:24:50 @ 128.0 m	16.1	DEG F
29	MAF SENSOR	193.6	143.2 #06:32:50 @ 16.0 m	215.9 #08:18:50 @ 122.0 m	22.8	DEG F
30	EEC POWER RELAY	181.7	117.3 #06:32:50 @ 16.0 m	221.7 #08:16:50 @ 120.0 m	33.1	DEG F
31	FUEL PUMP RELAY	186.2	126.0 #06:32:50 @ 16.0 m	235.6 #08:14:50 @ 118.0 m	39.6	DEG F

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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
32	ISC MOTOR	190.7	135.4 @06:32:50 @ 16.0 m	219.2 @08:18:50 @ 122.0 m	26.6	DEG F
33	EVR SOLENOID	193.4	167.3 @06:32:50 @ 16.0 m	209.1 @08:14:50 @ 118.0 m	13.0	DEG F
34	EVR REGULATOR	188.6	152.5 @06:32:50 @ 16.0 m	209.8 @08:14:50 @ 118.0 m	18.3	DEG F
35	THROTTLE BODY @TPS	186.2	132.3 @06:32:50 @ 16.0 m	212.7 @08:24:50 @ 128.0 m	27.9	DEG F
36	PURGE CONTROL SOLE.	185.0	130.9 @06:32:50 @ 16.0 m	204.3 @08:14:50 @ 118.0 m	20.6	DEG F
37	ALTERNATOR INLET AIR	208.3	174.4 @06:30:50 @ 14.0 m	236.7 @08:24:50 @ 128.0 m	19.1	DEG F
38	A/C EVAP CASE BTM	152.5	127.0 @06:32:50 @ 16.0 m	185.6 @07:10:50 @ 54.0 m	19.6	DEG F
39	FUEL PRESSURE REG	165.6	146.1 @06:34:50 @ 18.0 m	197.9 @08:44:50 @ 148.0 m	13.3	DEG F
40	FUEL RAIL SUPPLY	162.4	142.2 @06:34:50 @ 18.0 m	198.8 @08:40:50 @ 144.0 m	16.1	DEG F
41	FUEL RAIL RETURN	158.8	138.5 @06:34:50 @ 18.0 m	196.5 @08:44:50 @ 148.0 m	14.9	DEG F
42	STARTER CABLE @MAN	282.2	188.1 @08:44:50 @ 148.0 m	337.6 @07:16:50 @ 60.0 m	39.7	DEG F
43	STARTER MAGNET	240.4	178.4 @08:44:50 @ 148.0 m	268.3 @06:58:50 @ 42.0 m	22.4	DEG F

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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
44	STARTER COIL	215.6	170.7 #06:32:50 # 16.0 m	238.2 #08:14:50 # 118.0 m	22.3	DEG F
45	BRK MASTER CYL	192.4	168.6 #06:32:50 # 16.0 m	215.0 #08:18:50 # 122.0 m	15.5	DEG F
46	BRK VAC BOOSTER	203.5	162.5 #06:32:50 # 16.0 m	236.0 #08:14:50 # 118.0 m	23.0	DEG F
47	POWER DIST BOX AMB I	189.7	133.1 #06:32:50 # 16.0 m	210.8 #08:16:50 # 120.0 m	22.8	DEG F
48	AIR CLEANER CASE	183.5	125.6 #06:32:50 # 16.0 m	210.4 #08:14:50 # 118.0 m	27.9	DEG F
49	AIR CLEANER INLET	167.5	100.8 #06:28:50 # 12.0 m	209.5 #08:14:50 # 118.0 m	42.0	DEG F
50	A/C-RESONATOR HOSE	199.3	168.8 #06:32:50 # 16.0 m	229.9 #08:36:50 # 140.0 m	19.3	DEG F
51	CARBON CANNISTER	132.0	102.5 #06:34:50 # 18.0 m	159.2 #08:26:50 # 130.0 m	16.2	DEG F
52	STEERING FLUID	200.5	157.6 #06:32:50 # 16.0 m	227.8 #08:14:50 # 118.0 m	22.9	DEG F
53	POWER STEERING FLUID	212.4	186.4 #06:16:50 # 0.0 m	232.5 #08:14:50 # 118.0 m	14.7	DEG F
54	POWER STEERING HOSE	210.2	181.6 #08:44:50 # 148.0 m	238.8 #08:14:50 # 118.0 m	17.4	DEG F
57	EDIS MODULE EXT SKIN	162.7	107.0 #06:32:50 # 16.0 m	212.2 #08:16:50 # 120.0 m	42.3	DEG F

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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
61	A/C DISCHARGE AIR	62.5	38.4 @06:42:50 @ 26.0 m	126.7 @08:44:50 @ 148.0 m	26.7	DEG F
62	TOEBOARD TOP LH	256.0	173.6 @08:44:50 @ 148.0 m	314.2 @07:18:50 @ 62.0 m	48.2	DEG F
63	TOEBOARD TOP RH	209.6	168.6 @08:44:50 @ 148.0 m	250.6 @07:10:50 @ 54.0 m	25.2	DEG F
64	TOEBOARD BTM LH	238.1	162.2 @06:16:50 @ 0.0 m	293.5 @07:18:50 @ 62.0 m	40.3	DEG F
65	TOEBOARD BTM RH	216.7	162.6 @06:32:50 @ 16.0 m	257.8 @07:16:50 @ 60.0 m	27.8	DEG F
66	FLR OVER CAT LH	236.3	161.2 @06:16:50 @ 0.0 m	310.2 @07:18:50 @ 62.0 m	42.4	DEG F
67	FLR OVER CAT RH	197.0	159.9 @06:32:50 @ 16.0 m	239.3 @07:18:50 @ 62.0 m	21.1	DEG F
68	FLR OVER CAT OUT LH	236.9	152.1 @08:44:50 @ 148.0 m	309.1 @07:16:50 @ 60.0 m	43.0	DEG F
69	FLR OVER CAT OUT RH	206.0	160.8 @08:44:50 @ 148.0 m	252.2 @07:16:50 @ 60.0 m	22.6	DEG F
70	FLR 4" RR UBC LH	215.3	144.1 @08:44:50 @ 148.0 m	273.1 @07:18:50 @ 62.0 m	35.7	DEG F
71	FLR 4" RR UBC RH	197.9	158.8 @08:44:50 @ 148.0 m	227.5 @07:16:50 @ 60.0 m	18.5	DEG F
72	FLR OVER Y JT	194.2	133.1 @08:44:50 @ 148.0 m	268.3 @07:16:50 @ 60.0 m	33.0	DEG F

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VEH. ID : XXXXXXXXXX
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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
73	FLR OVER MUFF INLET	156.6	124.9 #08:44:50 @ 148.0 m	189.1 #07:16:50 @ 60.0 m	18.5	DEG F
74	FLR VERT FWD OF MUFF	181.0	127.9 #06:16:50 @ 0.0 m	232.5 #07:18:50 @ 62.0 m	27.6	DEG F
75	FLR OVER MUFF FRT	190.2	131.3 #06:16:50 @ 0.0 m	243.4 #07:18:50 @ 62.0 m	28.3	DEG F
76	FLR OVER MUFF CENTER	233.4	135.9 #06:16:50 @ 0.0 m	337.7 #07:16:50 @ 60.0 m	52.9	DEG F
77	FLR OVER MUFF RR	189.8	130.7 #06:16:50 @ 0.0 m	241.8 #07:20:50 @ 64.0 m	29.9	DEG F
78	FLR IN KICKUP	161.8	130.3 #06:30:50 @ 14.0 m	189.5 #07:20:50 @ 64.0 m	15.0	DEG F
79	FLR IN TRUNK	150.6	121.9 #06:16:50 @ 0.0 m	177.7 #07:18:50 @ 62.0 m	14.5	DEG F
80	HSGO TIP LH	1062.0	264.2 #08:44:50 @ 148.0 m	1378.3 #06:42:50 @ 26.0 m	373.1	DEG F
81	HSGO TIP RH	1006.7	232.0 #08:44:50 @ 148.0 m	1351.8 #06:42:50 @ 26.0 m	374.5	DEG F
82	HSGO GROMMET LH	279.8	175.1 #06:16:50 @ 0.0 m	362.1 #07:20:50 @ 64.0 m	63.8	DEG F
83	HSGO GROMMET RH	252.7	173.7 #06:16:50 @ 0.0 m	309.7 #07:16:50 @ 60.0 m	33.3	DEG F
84	HSGO HEX LH	572.6	237.9 #08:44:50 @ 148.0 m	748.4 #07:14:50 @ 58.0 m	144.5	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
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 TRST DESC: CLASS I T.TOW
 TEST DATE: 05 MAY 91
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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
85	HEGO HEX RH	550.0	227.1 @08:44:50 @ 148.0 m	780.0 @06:48:50 @ 32.0 m	171.9	DEG F
86	HEGO CONNECTOR LH	209.1	160.9 @06:32:50 @ 16.0 m	246.4 @08:14:50 @ 118.0 m	30.0	DEG F
87	HEGO CONNECTOR RH	197.3	161.9 @06:32:50 @ 16.0 m	214.2 @08:20:50 @ 124.0 m	16.2	DEG F
88	EXHAUST MANIFOLD LH	616.2	223.1 @08:44:50 @ 148.0 m	922.5 @06:44:50 @ 28.0 m	237.1	DEG F
89	EXHAUST MANIFOLD RH	580.6	221.4 @08:44:50 @ 148.0 m	848.6 @06:46:50 @ 30.0 m	202.2	DEG F
90	LOC GAS LH	993.8	372.8 @08:44:50 @ 148.0 m	1346.4 @06:42:50 @ 26.0 m	283.8	DEG F
91	LOC GAS RH	990.7	424.2 @08:44:50 @ 148.0 m	1348.0 @06:42:50 @ 26.0 m	272.8	DEG F
92	LOC SKIN OUTBD LH	476.0	212.2 @06:16:50 @ 0.0 m	633.8 @07:16:50 @ 60.0 m	116.1	DEG F
93	LOC SKIN OUTBD RH	435.2	186.0 @06:16:50 @ 0.0 m	601.8 @07:16:50 @ 60.0 m	111.7	DEG F
94	UBC GAS LH	902.3	384.1 @08:44:50 @ 148.0 m	1253.7 @06:50:50 @ 34.0 m	263.3	DEG F
95	UBC GAS RH	904.6	391.2 @08:44:50 @ 148.0 m	1271.7 @06:46:50 @ 30.0 m	272.1	DEG F
96	UBC SKIN BTM LH	604.4	242.1 @08:44:50 @ 148.0 m	865.3 @07:08:50 @ 52.0 m	185.2	DEG F

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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
97	UBC SKIN BTM RH	561.2	239.3 08:44:50 148.0 m	808.9 06:48:50 32.0 m	173.3	DEG F
98	EXH PIPE 1ST BEND LH	484.5	165.3 08:44:50 148.0 m	718.5 07:10:50 54.0 m	169.2	DEG F
99	EXH PIPE 1ST BEND RH	493.3	169.9 08:44:50 148.0 m	734.4 06:46:50 30.0 m	175.1	DEG F
100	EXH PIPE 6"RR UBC LH	479.3	157.9 08:44:50 148.0 m	720.3 07:08:50 52.0 m	172.9	DEG F
101	EXH PIPE 6"RR UBC RH	470.8	155.1 08:44:50 148.0 m	712.0 06:46:50 30.0 m	174.2	DEG F
102	EXH PIPE AT Y-JT	485.4	135.8 08:44:50 148.0 m	728.7 06:52:50 36.0 m	183.2	DEG F
103	EXH PIPE 6"FWD MUFF	438.8	134.7 08:44:50 148.0 m	695.9 06:52:50 36.0 m	180.7	DEG F
104	MUFFLER BTM CENTER	394.9	139.1 08:44:50 148.0 m	626.2 06:52:50 36.0 m	254.8	DEG F
105	EXH TOP OF EXHAUST	406.3	147.4 08:44:50 148.0 m	656.2 06:52:50 36.0 m	168.9	DEG F
106	EXH 12" EXHAUST	308.6	125.2 08:44:50 148.0 m	513.3 07:10:50 54.0 m	130.0	DEG F
107	INTERMED EXH HGR IN	224.3	132.5 06:16:50 0.0 m	309.9 07:16:50 60.0 m	49.7	DEG F
108	INTERMED EXH HGR OUT	222.1	131.0 06:16:50 0.0 m	302.4 07:18:50 62.0 m	44.3	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W455WST
 TEST DESC: CLASS I T.TOW
 TEST DATE: 05 MAY 91
 DATAFILE : W455WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
109	RR EXH. HANGER	198.5	121.5 @06:16:50 @ 0.0 m	277.6 @07:16:50 @ 60.0 m	44.3	DEG F
110	FRT U-JT AMB	188.7	137.8 @08:44:50 @ 148.0 m	234.4 @07:18:50 @ 62.0 m	26.2	DEG F
111	ENG MNT LH	197.7	170.2 @06:32:50 @ 16.0 m	237.9 @07:18:50 @ 62.0 m	20.0	DEG F
112	ENG MNT RH	198.7	138.4 @06:32:50 @ 16.0 m	230.3 @08:14:50 @ 118.0 m	27.2	DEG F
113	ENG MNT RR	192.4	149.9 @06:32:50 @ 16.0 m	220.2 @07:38:50 @ 82.0 m	22.4	DEG F
114	TRANS PAN GASKET LH	231.0	189.7 @06:32:50 @ 16.0 m	256.7 @07:26:50 @ 70.0 m	19.1	DEG F
116	SPEED SENSOR	208.9	172.7 @08:44:50 @ 148.0 m	234.5 @07:26:50 @ 70.0 m	20.4	DEG F
118	TRAN ELEC CONN LH RR	202.5	165.8 @06:32:50 @ 16.0 m	225.1 @08:14:50 @ 118.0 m	20.1	DEG F
119	TRANS BELLHSG LH	225.9	172.8 @06:32:50 @ 16.0 m	253.1 @07:28:50 @ 72.0 m	23.9	DEG F
120	TRANS BELLHSG RH	230.2	184.7 @06:32:50 @ 16.0 m	252.6 @07:26:50 @ 70.0 m	20.0	DEG F
121	TRAN EXT HSG GASKET	228.9	198.0 @06:32:50 @ 16.0 m	250.6 @07:16:50 @ 60.0 m	16.1	DEG F
122	TRAN EXT HSG BUSHING	220.7	191.7 @08:44:50 @ 148.0 m	244.4 @07:18:50 @ 62.0 m	15.6	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W455WST
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 TEST DATE: 05 MAY 91
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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
123	TRAN FILL TUBE SKIN	229.0	181.8 006:32:50 @ 16.0 m	261.5 007:24:50 @ 68.0 m	21.7	DEG F
124	TRAN FILL TUBE SEAL	219.6	152.2 006:30:50 @ 14.0 m	257.9 007:26:50 @ 70.0 m	30.2	DEG F
125	TRAN CASE @MAN LEV	229.0	190.4 006:32:50 @ 16.0 m	253.5 007:26:50 @ 70.0 m	18.2	DEG F
126	TRAN MLPB	213.6	174.0 006:32:50 @ 16.0 m	244.7 008:14:50 @ 118.0 m	24.0	DEG F
127	TRAN BULKHEAD CONN	210.4	171.1 008:44:50 @ 148.0 m	242.6 007:18:50 @ 62.0 m	22.3	DEG F
128	SHIFT CABLE @EXH MAN	252.9	184.6 008:44:50 @ 148.0 m	308.5 008:08:50 @ 112.0 m	51.8	DEG F
129	SHIFT CABLE @ LOC	186.7	130.2 006:30:50 @ 14.0 m	231.4 008:12:50 @ 116.0 m	34.7	DEG F
130	SHIFT CABLE @MAX LEV	189.7	136.1 006:30:50 @ 14.0 m	238.1 008:12:50 @ 116.0 m	35.3	DEG F
131	SHIFT CABLE @EXH	209.9	141.0 008:44:50 @ 148.0 m	261.3 007:18:50 @ 62.0 m	38.1	DEG F
132	SHIFT CABLE @MAN	199.3	143.0 008:44:50 @ 148.0 m	235.7 007:20:50 @ 64.0 m	29.1	DEG F
133	SHIFT CABL @ END FIT	194.1	145.5 006:30:50 @ 14.0 m	238.3 008:14:50 @ 118.0 m	29.1	DEG F
134	FUEL FILTER	139.9	123.1 006:32:50 @ 16.0 m	148.7 008:14:50 @ 118.0 m	7.7	DEG F

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VEH. ID : XXXXXXXXXX
 TEST ID : W455WST
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 TEST DATE: 05 MAY 91
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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
136	FUEL LINE AT FILTER	131.5	115.8 #06:30:50 @ 14.0 m	140.3 #07:16:50 @ 60.0 m	7.6	DEG F
137	FUEL RET LINE @ TANK	148.9	130.8 #06:32:50 @ 16.0 m	156.5 #07:14:50 @ 58.0 m	7.5	DEG F
138	FUEL SUP LINE @ TANK	149.7	126.1 #06:32:50 @ 16.0 m	159.7 #07:20:50 @ 64.0 m	10.6	DEG F
139	FUEL TANK SKIN FRT	147.6	131.4 #06:16:50 @ 0.0 m	160.3 #07:10:50 @ 54.0 m	6.5	DEG F
140	FUEL PUMP FLANGE	149.9	133.1 #06:32:50 @ 16.0 m	161.5 #07:12:50 @ 56.0 m	7.5	DEG F
141	FUEL LINE AT SENDER	148.7	132.1 #06:32:50 @ 16.0 m	155.7 #08:14:50 @ 118.0 m	7.5	DEG F
142	FUEL LINE PLAS. CONN	159.3	127.1 #06:16:50 @ 0.0 m	179.6 #07:18:50 @ 62.0 m	15.6	DEG F
143	FUEL IN TANK	140.4	127.5 #06:32:50 @ 16.0 m	148.1 #08:14:50 @ 118.0 m	6.3	DEG F
144	PARK BRK CABLE @AXLE	161.1	124.2 #06:16:50 @ 0.0 m	199.7 #07:14:50 @ 58.0 m	22.1	DEG F
145	AIR SPRING UP CAP RH	161.4	128.8 #06:32:50 @ 16.0 m	177.4 #07:34:50 @ 78.0 m	16.0	DEG F
146	AIR SPRING SLV RH RR	164.8	129.4 #06:16:50 @ 0.0 m	188.7 #07:20:50 @ 64.0 m	17.1	DEG F
147	AIR SPRING SOLE. RH	165.8	129.3 #06:32:50 @ 16.0 m	192.5 #07:20:50 @ 64.0 m	19.0	DEG F

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VEH. ID : XXXXXXXXXX
 TEST ID : W455WST
 TEST DESC: CLASS I T.TOW
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 DATAFILE : W455WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
148	ABS SENS WIRE RH RR	160.7	127.1 @06:16:50 @ 0.0 m	203.6 @07:14:50 @ 50.0 m	22.9	DEG F
149	A/CLEAN ELEMENT SEAL	192.4	149.6 @06:32:50 @ 16.0 m	211.6 @08:18:50 @ 122.0 m	20.3	DEG F
150	A/C CYCLING SWITCH	189.1	161.0 @06:32:50 @ 16.0 m	206.2 @08:14:50 @ 118.0 m	14.6	DEG F
151	SHIFT CABLE BRACKET	204.0	155.1 @06:32:50 @ 16.0 m	237.9 @07:20:50 @ 64.0 m	28.6	DEG F
152	SHIFT CABLE @ UDC	207.2	188.0 @08:44:50 @ 148.0 m	247.5 @07:18:50 @ 62.0 m	31.5	DEG F
153	SFT CABLE 10"RR BRKT	148.2	-19.3 @07:18:50 @ 62.0 m	152.7 @08:44:50 @ 148.0 m	47.1	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : test2
 TEST DESC: 5000#t.tow
 TEST DATE: 13 JUN 91
 DATAFILE : TEST2

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
11	AMBIENT	125.5	100.3 @08:05:27 @ 4.0 m	154.3 @10:01:27 @ 120.0 m	20.8	DEG F
12	TOP WATER	232.2	201.6 @08:01:27 @ 0.0 m	249.2 @08:59:27 @ 58.0 m	13.8	DEG F
13	ENGINE OIL	245.5	188.0 @10:31:27 @ 150.0 m	290.7 @08:57:27 @ 56.0 m	30.6	DEG F
14	TRANSMISSION FLUID	236.3	197.9 @08:17:27 @ 16.0 m	270.2 @08:53:27 @ 52.0 m	25.1	DEG F
15	POWER STEERING FLUID	220.7	172.6 @08:17:27 @ 16.0 m	233.0 @09:21:27 @ 80.0 m	18.3	DEG F
16	UHOOD AMB X LF/RR	207.7	151.3 @08:11:27 @ 10.0 m	229.2 @09:11:27 @ 70.0 m	21.8	DEG F
17	UHOOD AMB X RF/LR	197.0	140.1 @08:17:27 @ 16.0 m	218.4 @09:11:27 @ 70.0 m	24.7	DEG F
18	ACT CONNECTOR	194.8	112.6 @08:17:27 @ 16.0 m	217.9 @09:23:27 @ 82.0 m	31.1	DEG F
19	ECT CONNECTOR	217.1	171.0 @08:17:27 @ 16.0 m	235.8 @09:05:27 @ 64.0 m	18.0	DEG F
20	TP SENSOR	198.7	153.7 @08:01:27 @ 0.0 m	214.0 @09:31:27 @ 90.0 m	19.4	DEG F
21	CRANK POSITION SEN.	215.4	164.8 @08:17:27 @ 16.0 m	239.8 @09:05:27 @ 64.0 m	21.0	DEG F
22	CAM POSITION SEN.	222.7	182.2 @08:17:27 @ 16.0 m	244.6 @09:03:27 @ 62.0 m	17.3	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID :
 TEST ID : test2
 TEST DESC: 5000#t.tow
 TEST DATE: 13 JUN 91
 DATAFILE : TEST2

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
23	EDIS MODULE (1)	172.1	121.9 008:17:27 0 16.0 m	218.5 009:59:27 0 118.0 m	36.4	DEG F
24	EDIS MODULE (2)	172.7	123.8 008:17:27 0 16.0 m	216.6 009:59:27 0 118.0 m	34.5	DEG F
25	LH IGNITION COIL AMB	210.6	158.8 008:17:27 0 16.0 m	230.7 009:11:27 0 70.0 m	20.0	DEG F
26	RH IGNITION COIL AMB	207.7	142.3 008:11:27 0 10.0 m	230.7 009:11:27 0 70.0 m	24.2	DEG F
27	OIL PRESSURE SENDER	223.9	175.5 008:17:27 0 16.0 m	258.9 009:01:27 0 60.0 m	24.3	DEG F
28	H2O TEMP SENDER	226.4	196.0 008:01:27 0 0.0 m	243.9 008:59:27 0 58.0 m	13.7	DEG F
29	MAF SENSOR	205.7	143.3 008:17:27 0 16.0 m	224.4 009:13:27 0 72.0 m	23.0	DEG F
30	EEC POWER RELAY	197.9	134.0 008:17:27 0 16.0 m	251.2 009:59:27 0 118.0 m	41.9	DEG F
31	FUEL PUMP	194.7	127.4 008:17:27 0 16.0 m	252.7 009:59:27 0 118.0 m	44.5	DEG F
32	ISC MOTOR	196.7	132.6 008:17:27 0 16.0 m	217.1 010:03:27 0 122.0 m	28.8	DEG F
33	EVR SOLENOID	200.5	158.2 008:01:27 0 0.0 m	217.3 009:25:27 0 84.0 m	18.5	DEG F
34	EVR REGULATOR	199.1	154.7 008:17:27 0 16.0 m	227.0 009:29:27 0 88.0 m	20.0	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : test2
 TEST DESC: 5000#t.tow
 TEST DATE: 13 JUN 91
 DATAFILE : TEST2

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
35	THROTTLE BODY @TPS	193.2	132.4 @08:17:27 @ 16.0 m	216.5 @09:23:27 @ 82.0 m	26.8	DEG F
36	PURGE CONTROL SOLE.	195.9	134.6 @08:17:27 @ 16.0 m	213.0 @09:15:27 @ 74.0 m	24.0	DEG F
37	ALTERNATOR INLET AIR	210.9	178.2 @08:17:27 @ 16.0 m	236.8 @09:03:27 @ 62.0 m	16.0	DEG F
38	A/C EVAP CASE BTM	223.3	122.2 @08:01:27 @ 0.0 m	265.4 @08:37:27 @ 36.0 m	43.6	DEG F
39	FUEL PRESS REG	176.2	143.6 @08:19:27 @ 18.0 m	211.8 @10:31:27 @ 150.0 m	16.6	DEG F
40	FUEL RAIL SUPPLY	171.9	141.7 @08:19:27 @ 18.0 m	207.6 @10:23:27 @ 142.0 m	18.0	DEG F
41	FUEL RAIL RETURN	169.3	137.9 @08:17:27 @ 16.0 m	207.7 @10:25:27 @ 144.0 m	19.5	DEG F
42	STARTER CABLE	267.3	240.8 @08:01:27 @ 0.0 m	345.2 @09:05:27 @ 64.0 m	21.9	DEG F
43	STARTER MAGNET	222.4	160.6 @08:01:27 @ 0.0 m	273.3 @09:01:27 @ 60.0 m	31.5	DEG F
44	STARTER BEARING	237.4	165.9 @08:01:27 @ 0.0 m	274.3 @09:01:27 @ 60.0 m	34.6	DEG F
45	BRK MASTER CYL	196.3	150.6 @08:17:27 @ 16.0 m	216.3 @10:01:27 @ 120.0 m	21.4	DEG F
46	BRK VAC BOOSTER	208.3	154.4 @08:17:27 @ 16.0 m	227.8 @09:59:27 @ 118.0 m	22.9	DEG F

TABULAR DATA SUMMARY REPORT

VER. ID :
 TEST ID : test2
 TEST DESC: 5000ft.tow
 TEST DATE: 13 JUN 91
 DATAFILE : TEST2

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
47	POWER DIST BOX AMB I	205.2	123.6 008:17:27 0 16.0 m	229.6 009:03:27 0 62.0 m	29.3	DEG F
48	AIR CLEANER CASE	195.4	125.5 008:17:27 0 16.0 m	220.4 009:13:27 0 72.0 m	27.3	DEG F
49	AIR CLEANER INLET	169.5	101.8 008:13:27 0 12.0 m	210.5 009:13:27 0 72.0 m	41.3	DEG F
50	AIR INTAKE RESONATOR	214.6	168.5 008:17:27 0 16.0 m	232.7 009:07:27 0 66.0 m	17.9	DEG F
51	CARBON CANNISTER	149.9	101.5 008:17:27 0 16.0 m	178.4 009:21:27 0 80.0 m	23.9	DEG F
52	STEERING FLEX COUPL.	215.6	157.3 008:17:27 0 16.0 m	242.8 009:01:27 0 60.0 m	24.1	DEG F
53	POWER STEERING PUMP	214.1	168.0 008:17:27 0 16.0 m	228.1 009:19:27 0 78.0 m	18.5	DEG F
54	POWER STEERING HOSE	215.1	169.4 008:17:27 0 16.0 m	233.5 009:17:27 0 76.0 m	20.7	DEG F
55	AIR SUSP	198.9	155.3 008:17:27 0 16.0 m	225.7 009:09:27 0 68.0 m	22.7	DEG F
61	A/C DISCH	94.9	37.9 008:15:27 0 14.0 m	151.5 010:31:27 0 150.0 m	39.2	DEG F
62	TOEBO TOP LH	265.0	163.5 010:31:27 0 150.0 m	340.7 009:05:27 0 64.0 m	56.6	DEG F
63	TOEBO TOP RH	261.5	164.7 010:31:27 0 150.0 m	336.9 008:25:27 0 24.0 m	57.6	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
64	TOEBOARD BTM LH	242.4	147.1 @10:31:27 @ 150.0 m	341.3 @09:03:27 @ 62.0 m	57.6	DEG F
65	TOEBOARD BTM RH	253.4	158.8 @10:31:27 @ 150.0 m	333.9 @09:03:27 @ 62.0 m	57.0	DEG F
66	FLR OVER CAT LH	228.4	139.9 @10:31:27 @ 150.0 m	332.8 @09:03:27 @ 62.0 m	55.5	DEG F
67	FLR OVER CAT RH	237.7	151.7 @10:31:27 @ 150.0 m	334.6 @09:03:27 @ 62.0 m	53.7	DEG F
68	FLR OVER CAT OUT LH	235.6	134.6 @10:31:27 @ 150.0 m	345.5 @08:25:27 @ 24.0 m	70.5	DEG F
69	FLR OVER CAT OUT RH	247.3	146.8 @10:31:27 @ 150.0 m	345.4 @09:03:27 @ 62.0 m	68.1	DEG F
70	FLR 4" RR UBC LH	203.8	130.8 @10:31:27 @ 150.0 m	281.3 @09:01:27 @ 60.0 m	49.0	DEG F
71	FLR 4" RR UBC RH	231.5	144.7 @10:31:27 @ 150.0 m	328.2 @09:01:27 @ 60.0 m	58.2	DEG F
72	FLR OVER H JT	175.4	132.7 @10:31:27 @ 150.0 m	231.7 @09:03:27 @ 62.0 m	27.2	DEG F
73	FLR @ MUFF INLET RH	157.3	126.1 @10:31:27 @ 150.0 m	198.3 @08:25:27 @ 24.0 m	26.1	DEG F
74	FLR VERT FWD MUFF RH	187.5	134.2 @08:17:27 @ 16.0 m	256.0 @09:03:27 @ 62.0 m	41.6	DEG F
75	FLR OVER MUFF FRT RH	196.5	136.7 @08:17:27 @ 16.0 m	271.9 @09:03:27 @ 62.0 m	42.8	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : test2
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 TEST DATE: 13 JUN 91
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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
76	FLR OVER MUFF CEN RH	232.8	141.8 010:31:27 @ 150.0 m	375.7 009:01:27 @ 60.0 m	75.8	DEG F
77	FLR OVER MUFF RR RH	191.6	133.7 008:17:27 @ 16.0 m	259.0 009:05:27 @ 64.0 m	35.7	DEG F
78	FLR IN KICKUP RH	164.9	127.1 008:15:27 @ 14.0 m	195.8 009:07:27 @ 66.0 m	18.1	DEG F
79	FLR IN TRUNK RH	140.6	116.2 008:17:27 @ 16.0 m	165.4 009:03:27 @ 62.0 m	12.4	DEG F
80	HEGO TIP LH	1111.9	226.3 010:31:27 @ 150.0 m	1578.7 008:21:27 @ 20.0 m	436.8	DEG F
81	HEGO TIP RH	1060.0	208.7 010:31:27 @ 150.0 m	1574.3 008:19:27 @ 18.0 m	444.3	DEG F
82	HEGO GROMMET LH	276.7	178.1 010:31:27 @ 150.0 m	393.7 009:03:27 @ 62.0 m	55.2	DEG F
83	HEGO GROMMET RH	309.4	180.9 010:31:27 @ 150.0 m	446.8 009:03:27 @ 62.0 m	69.0	DEG F
84	HEGO HEX LH	614.1	270.4 010:31:27 @ 150.0 m	957.3 008:25:27 @ 24.0 m	223.9	DEG F
85	HEGO HEX RH	627.0	206.5 010:31:27 @ 150.0 m	1001.0 008:23:27 @ 22.0 m	247.3	DEG F
86	HEGO CONNECTOR LH	230.3	177.1 008:01:27 @ 0.0 m	230.6 009:19:27 @ 78.0 m	20.0	DEG F
87	HEGO CONNECTOR RH	207.8	156.8 008:17:27 @ 16.0 m	229.6 009:13:27 @ 72.0 m	21.3	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
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 TEST DATE: 13 JUN 91
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Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
88	EXHAUST MANIFOLD LH	655.7	211.5 @10:31:27 @ 150.0 m	1162.9 @08:21:27 @ 20.0 m	309.4	DEG F
89	EXHAUST MANIFOLD RH	648.1	204.3 @10:31:27 @ 150.0 m	1129.2 @08:23:27 @ 22.0 m	301.9	
90	LOC GAS LH	1037.4	336.9 @10:31:27 @ 150.0 m	1662.3 @08:21:27 @ 20.0 m	365.9	DEG F
91	LOC GAS RH	1030.1	261.1 @10:31:27 @ 150.0 m	1669.6 @08:21:27 @ 20.0 m	379.4	DEG F
92	LOC SKIN OUTED LH	466.6	232.3 @10:31:27 @ 150.0 m	686.9 @09:03:27 @ 62.0 m	126.2	DEG F
93	LOC SKIN OUTED RH	458.0	212.8 @10:31:27 @ 150.0 m	702.2 @09:01:27 @ 60.0 m	127.9	DEG F
94	UBC GAS LH	935.5	323.8 @10:31:27 @ 150.0 m	1571.4 @08:21:27 @ 20.0 m	367.0	DEG F
95	UBC GAS RH	853.8	259.6 @10:31:27 @ 150.0 m	1522.2 @08:21:27 @ 20.0 m	380.5	DEG F
96	UBC SKIN BTM LH	602.6	200.3 @10:31:27 @ 150.0 m	1052.2 @08:23:27 @ 22.0 m	257.1	DEG F
97	UBC SKIN BTM RH	620.4	224.0 @10:31:27 @ 150.0 m	1059.2 @08:23:27 @ 22.0 m	251.7	DEG F
98	EXH PIPE 1ST BEND LH	507.8	147.1 @10:31:27 @ 150.0 m	939.6 @08:23:27 @ 22.0 m	238.4	DEG F
99	EXH PIPE 1ST BEND RH	544.2	182.1 @10:31:27 @ 150.0 m	984.0 @08:23:27 @ 22.0 m	242.7	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID :
 TEST ID : test2
 TEST DESC: 5000ft.tow
 TEST DATE: 13 JUN 91
 DATAFILE : TEST2

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
100	EXH PIPE 6"RR UBC LH	492.4	143.8 @10:31:27 @ 150.0 m	927.8 @08:23:27 @ 22.0 m	236.4	DEG F
101	EXH PIPE 6"RR UBC RH	469.6	166.2 @10:31:27 @ 150.0 m	850.3 @08:23:27 @ 22.0 m	203.6	DEG F
102	EXH PIPE @ H JOINT	454.2	136.3 @10:31:27 @ 150.0 m	821.5 @08:23:27 @ 22.0 m	206.9	DEG F
103	EXH PIPE 6"FWD MUFF RH	437.8	138.4 @10:31:27 @ 150.0 m	892.7 @08:23:27 @ 22.0 m	236.1	DEG F
104	MUFF BTM CEN RH	346.7	136.2 @10:31:27 @ 150.0 m	732.1 @08:23:27 @ 22.0 m	191.3	DEG F
105	EXH PIPE KICKUP RH	372.3	144.7 @10:31:27 @ 150.0 m	766.5 @08:23:27 @ 22.0 m	204.7	DEG F
106	EXH PIPE 12"FORCUT RH	232.5	130.5 @10:31:27 @ 150.0 m	402.7 @08:27:27 @ 26.0 m	98.4	DEG F
107	EXH HANG INTER RH IN	187.0	139.1 @10:31:27 @ 150.0 m	245.8 @09:01:27 @ 60.0 m	138.3	DEG F
108	EXH HANG INTER RH OUT	170.8	131.1 @08:15:27 @ 14.0 m	220.0 @09:03:27 @ 62.0 m	29.1	DEG F
109	EXH HANG REAR RH	147.6	117.2 @08:17:27 @ 16.0 m	183.8 @09:09:27 @ 68.0 m	19.2	DEG F
110	FRT B-JOINT	175.1	133.1 @10:31:27 @ 150.0 m	232.5 @09:03:27 @ 62.0 m	27.4	DEG F
112	ENGINE MOUNT RH	219.7	139.6 @08:17:27 @ 16.0 m	250.1 @09:01:27 @ 60.0 m	33.6	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : test2
 TEST DESC: 5000#t.tow
 TEST DATE: 13 JUN 91
 DATAFILE : TEST2

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
113	ENGINE MOUNT REAR	192.4	145.6 @08:17:27 @ 16.0 m	227.4 @09:03:27 @ 62.0 m	23.6	DEG F
114	TRANS OILPAN GSKT LH	206.1	134.9 @08:17:27 @ 16.0 m	254.8 @09:05:27 @ 64.0 m	31.9	DEG F
115	TRANS OILPAN GSKT RH	212.6	135.0 @08:17:27 @ 16.0 m	262.9 @09:03:27 @ 62.0 m	33.1	DEG F
116	SPEED SNSR EXT HSG	226.6	181.5 @10:31:27 @ 150.0 m	267.0 @08:49:27 @ 48.0 m	29.6	DEG F
117	TRANS EXTHSG RR SEAL	224.5	179.3 @10:31:27 @ 150.0 m	260.6 @09:03:27 @ 62.0 m	26.4	DEG F
118	TRANS OUTSHAFT SNSR	208.2	161.7 @10:31:27 @ 150.0 m	245.4 @09:01:27 @ 60.0 m	27.8	DEG F
119	TRANS BELLHSG LH	230.1	171.6 @08:17:27 @ 16.0 m	265.9 @09:03:27 @ 62.0 m	27.6	DEG F
120	TRANS BELLHSG RH	256.7	175.8 @10:31:27 @ 150.0 m	327.9 @09:01:27 @ 60.0 m	49.6	DEG F
121	TRANS EXT HSG GSKT	229.7	184.5 @08:17:27 @ 16.0 m	267.8 @09:01:27 @ 60.0 m	27.8	DEG F
122	TRANS EXT HSG BUSH	224.2	177.6 @10:31:27 @ 150.0 m	261.8 @09:01:27 @ 60.0 m	27.4	DEG F
123	TRANS FILL TUBE SEAL	228.8	153.3 @08:17:27 @ 16.0 m	273.5 @09:03:27 @ 62.0 m	36.7	DEG F
124	TRANS FILL TUBE SKIN	248.4	162.6 @10:31:27 @ 150.0 m	313.1 @09:03:27 @ 62.0 m	46.3	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : test2
 TEST DESC: 5000#t.tow
 TEST DATE: 13 JUN 91
 DATAFILE : TEST2

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
125	TRANS CASE MAN LEVER	227.3	173.3 008:17:27 0 16.0 m	261.2 009:03:27 0 62.0 m	27.1	DEG F
126	TRANS MLP SENSOR	199.5	153.5 010:31:27 0 150.0 m	237.2 009:07:27 0 66.0 m	27.5	DEG F
127	TRANS BULK CONN.	218.1	158.6 010:31:27 0 150.0 m	249.6 008:41:27 0 40.0 m	31.1	DEG F
128	SHIFT CABLE SEXH MAN	249.9	156.4 010:31:27 0 150.0 m	333.1 009:01:27 0 60.0 m	59.1	DEG F
129	SHIFT CABLE AT LOC	176.0	127.6 008:15:27 0 14.0 m	210.1 009:05:27 0 64.0 m	26.6	DEG F
130	SHIFT CABLE 0 ADE	178.3	133.7 008:17:27 0 16.0 m	217.8 009:05:27 0 64.0 m	25.6	DEG F
131	SHIFT CABLE 0 SLEEVE	200.6	129.1 010:31:27 0 150.0 m	279.5 009:01:27 0 60.0 m	47.5	DEG F
132	SHIFT CABLE UND SLV	198.6	138.1 010:31:27 0 150.0 m	258.0 009:01:27 0 60.0 m	38.4	DEG F
133	SHIFT CABLE END PTH	193.8	135.0 010:31:27 0 150.0 m	263.2 009:01:27 0 60.0 m	40.4	DEG F
135	FUEL FILTER SKIN	148.5	122.6 008:17:27 0 16.0 m	161.0 009:03:27 0 62.0 m	11.8	DEG F
136	FUEL TUBE SUPFILTER	138.2	112.6 008:17:27 0 16.0 m	153.5 009:01:27 0 60.0 m	11.9	DEG F
137	FUEL VAP RET LINE	157.4	133.3 008:17:27 0 16.0 m	176.5 009:01:27 0 60.0 m	11.3	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : test2
 TEST DESC: 5000#t.tow
 TEST DATE: 13 JUN 91
 DATAFILE : TEST2

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
138	FUEL SUPPLY LINE@TNK	161.7	131.7 @08:17:27 @ 16.0 m	186.0 @09:03:27 @ 62.0 m	17.0	DEG F
139	FUEL TANK SKIN FRT	153.4	132.3 @08:17:27 @ 16.0 m	168.5 @08:59:27 @ 58.0 m	9.1	DEG F
140	FUEL TNK PUMP FLANGE	162.5	132.7 @08:17:27 @ 16.0 m	190.5 @08:59:27 @ 58.0 m	17.1	DEG F
141	FUEL TUBE AT SENDER	155.0	131.1 @08:17:27 @ 16.0 m	167.8 @09:01:27 @ 60.0 m	11.1	DEG F
142	FUEL PLAST CONN@SEND	170.8	133.0 @08:17:27 @ 16.0 m	213.8 @09:03:27 @ 62.0 m	24.9	DEG F
143	FUEL IN TANK	147.9	129.2 @08:17:27 @ 16.0 m	157.1 @09:23:27 @ 82.0 m	9.0	DEG F
144	PARK BRK CAB@AXLERH	160.7	133.2 @10:11:27 @ 130.0 m	211.4 @09:01:27 @ 60.0 m	30.2	DEG F
145	AIR SPRING UP CAP RH	167.3	125.1 @08:17:27 @ 16.0 m	200.7 @09:05:27 @ 64.0 m	21.1	DEG F
146	AIR SPRING SLV RH	168.1	127.9 @08:17:27 @ 16.0 m	206.1 @09:05:27 @ 64.0 m	23.9	DEG F
147	AIR SPRING SOLE. RH	169.9	125.5 @08:17:27 @ 16.0 m	211.9 @09:07:27 @ 66.0 m	22.9	DEG F
148	ABS SNSR WIRE RH KUP	154.8	126.0 @10:11:27 @ 130.0 m	210.6 @08:59:27 @ 58.0 m	31.9	DEG F
149	AIR CLEANER EIM SEAL	206.2	149.8 @08:15:27 @ 14.0 m	224.2 @09:11:27 @ 70.0 m	20.9	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID :
 TEST ID : test2
 TEST DESC: 5000#t.tow
 TEST DATE: 13 JUN 91
 DATAFILE : TEST2

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
150	A/C CYCLING SWITCH	204.7	158.8 #08:15:27 @ 14.0 m	223.3 #09:13:27 @ 72.0 m	18.9	DEG F
151	SHFT CABLE BRKT	178.4	129.4 #10:31:27 @ 150.0 m	224.8 #09:03:27 @ 62.0 m	28.9	DEG F
152	SHFT CABLE AT UBC	201.5	152.5 #08:15:27 @ 14.0 m	248.6 #09:03:27 @ 62.0 m	29.4	DEG F
153	SHFT CABLE10"RR CLIP	212.8	156.2 #08:17:27 @ 16.0 m	259.9 #09:05:27 @ 64.0 m	33.7	DEG F
154	EXHPIPE 6"FWD MUF LH	452.8	132.5 #10:31:27 @ 150.0 m	927.9 #08:23:27 @ 22.0 m	252.3	DEG F
155	MUFF BTM CENTER LH	452.5	128.3 #10:31:27 @ 150.0 m	983.4 #08:23:27 @ 22.0 m	282.2	DEG F
156	EXH PIPE KICKUP LH	372.2	130.0 #10:31:27 @ 150.0 m	782.9 #08:23:27 @ 22.0 m	215.9	DEG F
157	EXHPIPE12"FWD OOM LH	246.0	120.1 #10:31:27 @ 150.0 m	401.4 #08:27:27 @ 26.0 m	121.5	DEG F
158	EXH HANG INTER LEOP	180.0	135.6 #10:31:27 @ 150.0 m	234.8 #09:05:27 @ 64.0 m	39.7	DEG F
159	EXH HANG I	163.4	120.8 #08:17:27 @ 16.0 m	205.4 #09:05:27 @ 64.0 m	24.2	DEG F

CAR HEAT PROTECTION SIGNOFF DATA SUMMARY

TEST VEHICLE DESCRIPTION

CARLINE: 1992 PN36 *TOWN CAR*

MODEL: 4 - Door Sedan

VEHICLE NUMBER: V2-219 ()

POWERTRAIN: 4.6L, AODE, 3.08:1

ENGINE NO.: X2VE-4.6MC-B1-30081

ENGINE EEC STRATEGY: GAAZA-07K

CATALYST NO.: F1VC-5E212-E1 (RH)
F1VC-5E214-E1 (LH)

SHIELDS: LOC'S (RH & LH), UBC'S (RH & LH), EXH. PIPE IN KICKUP,
AIR SUSPENSION SOLENOID

GROUND COVER PROTECTION: UBC'S (LH & RH)

RADIATOR: F1VH-6005-A1

W.C. Bable 7/22/91
ISSUED BY: W. C. BABLE

J.V. Kranig
APPROVED BY: J. V. KRANIG

V.L. Folkus
CONCURRED BY: V. L. FOLKUS

CAR HEAT PROTECTION SIGNOFF DATA SUMMARY

TEST INDEX

1. TEST CONDITIONS: W838W3

a) PROCEDURE:

- 75MPH ROAD LOAD (20 MILES)
- 30MPH 7% GRADE LOAD (20 MILES)
- IDLE IN DRIVE (10 MIN.)
- IDLE IN NEUTRAL (50 MIN.)
- ENGINE OFF SOAK (30 MIN.)

b) DATE

- 07-15-91

c) SITE

- WINDTUNNEL #3

d) AMBIENT TEMPERATURE

- 100 DEG F

e) DRAWBAR LOAD:

- 75MPH 170LBS
- 30MPH 390LBS

f) AVG. MANIFOLD VACUUM / TRANSMISSION GEAR:

- 75RL: 7.9 IN. HG. / OVERDRIVE
- 30GL: W.O.T. / 2RD GEAR
- IDLE: 15.4 IN. HG. / DRIVE
- IDLE: 20.0 IN. HG. (A/C OFF) / NEUTRAL

g) COMMENTS: BASELINE

2. TEST CONDITIONS: WB38WST

a) PROCEDURE:

- 75MPH ROAD LOAD (20 MILES)
- 30MPH 5.5% GRADE LOAD (20 MILES)
- IDLE IN DRIVE (10 MIN.)
- IDLE IN NEUTRAL (50 MIN.)
- ENGINE OFF SOAK (30 MIN.)

b) DATE

- 07-15-91

c) SITE

- WINDTUNNEL #3

d) AMBIENT TEMPERATURE

- 100 DEG F

e) DRAWBAR LOAD:

- 75MPH 170LBS
- 30MPH 590LBS

f) AVG. MANIFOLD VACUUM / TRANSMISSION GEAR:

- 75RL: 5.7 IN. HG. / OVERDRIVE
- 30GL: 2.4 IN. HG. / 3RD GEAR
- IDLE: 14.8 IN. HG. / DRIVE
- IDLE: 17.3 IN. HG. (A/C ON) / NEUTRAL

g) COMMENTS: CLASS I TRAILER TOW (2500 LBS)

3. TEST CONDITIONS: W838W3M

a) PROCEDURE:

- 75MPH ROAD LOAD (20 MILES)
- 30MPH 7% GRADE LOAD (20 MILES)
- IDLE IN DRIVE (10 MIN.)
- IDLE IN NEUTRAL (50 MIN.)
- ENGINE OFF SOAK (30 MIN.)

b) DATE

- 07-15-91

c) SITE

- WINDTUNNEL #3

d) AMBIENT TEMPERATURE

- 100 DEG F

e) DRAWBAR LOAD:

- 75MPH 170LBS
- 30MPH 390LBS

f) AVG. MANIFOLD VACUUM / TRANSMISSION GEAR:

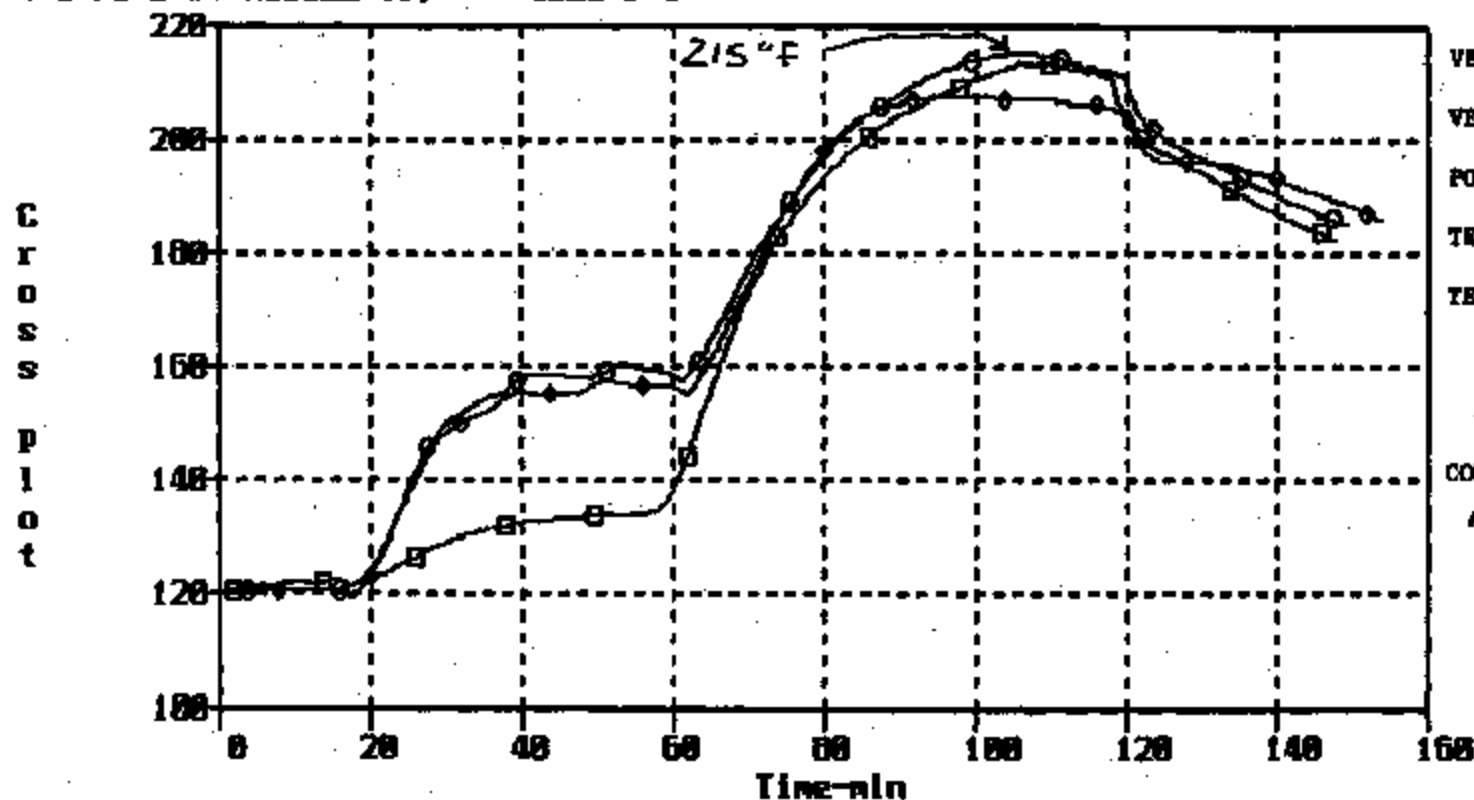
- 75RL: 4.0 IN. HG. / OVERDRIVE
- 30GL: 1.3 IN. HG. / 3RD GEAR
- IDLE: 13.6 IN. HG. / DRIVE
- IDLE: 16.3 IN. HG. (A/C ON) / NEUTRAL

g) COMMENTS: ENGINE MALFUNCTION (#3 SPARK PLUG SHORTED)

CAR HEAT PROTECTION SIGNOFF DATA SUMMARY
COMPONENT OVERTEMPERATURE SUMMARY - V2-219

<u>ITEM</u>	<u>RECOMMENDED TEMP LIMIT</u>	<u>TEMP</u>	<u>MODE</u>	<u>COMMENTS</u>
MASS AIRFLOW SENSOR	212° F.	215°F.	IDLE	CR C10092251 -CLOSED ELD NO ISSUE
EDIS MODULE	212 F.	215 F.	IDLE	CR C10075405 -CLOSED ELD NO ISSUE

1=386MB304:MB30M3 2=386MB304:MB30MST 3=386MB304:MB30M3N
 O=1:23:EDIS MODULE (1) [DEG F] O=2:23:EDIS MODULE (1) [DEG F]
 O=3:23:EDIS MODULE (1) [DEG F]



VEH. NUMBER:
V2-219
 VEH. TYPE:
T CAR
 POWERTRAIN:
4.6L AODE
 TEST LOCATION:
W/T 3
 TEST MODES:
 1. STANDARD
 2. CLASS I TRAILER TOW
 3. ENGINE MALFUNCTION
 4.

COMMENTS:
 MAX. ALLOWABLE
 TEMP = 212°F

3713 8621

75 MPH
ROAD
LOAD

20 MI

30 MPH
7% GRADE LOAD

20 MILES

IDLE

60 MINUTES

ENGINE OFF
SOAK

30 MINUTES

1=386MB38M:MB38M3

2=386MB38M:MB38MST

3=386MB38M:MB38MCM

□=1:29:MAF SENSOR

[DEG F]

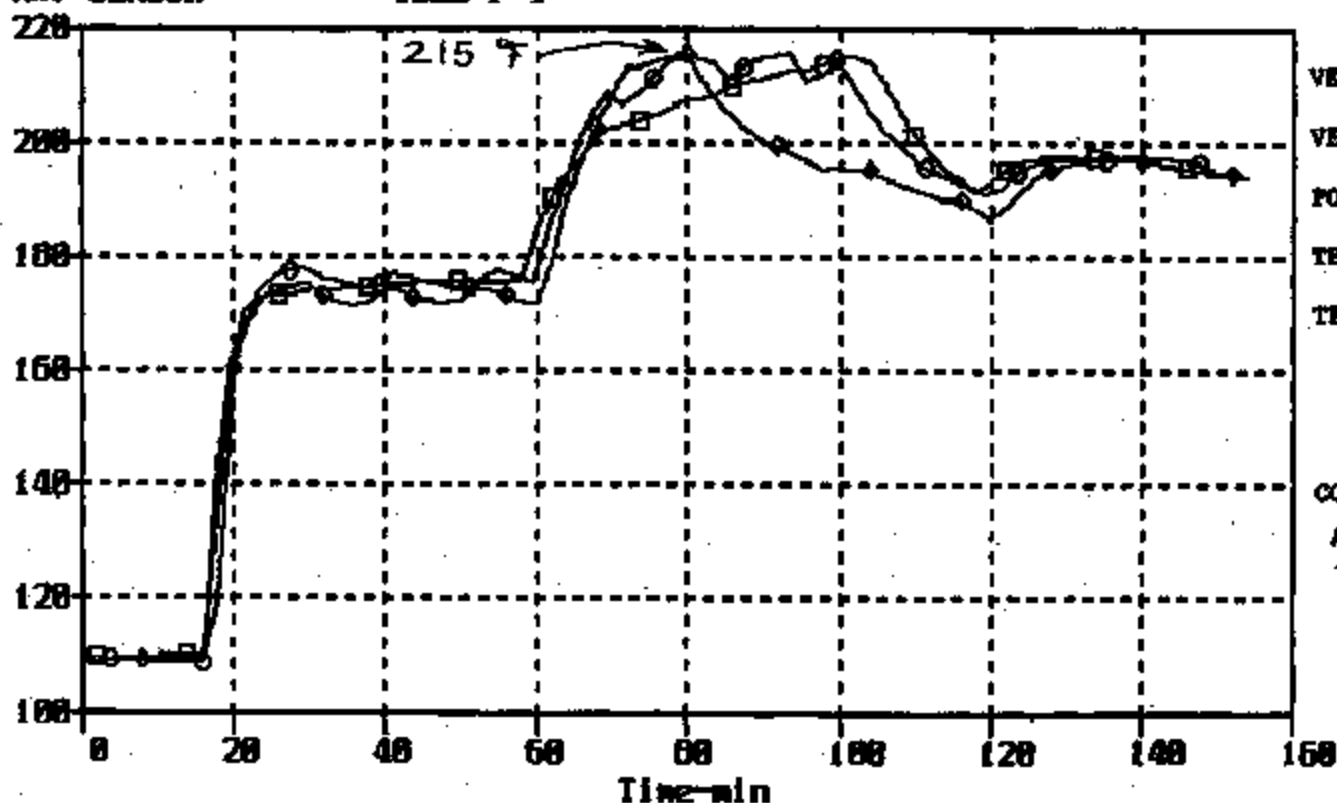
○=2:29:MAF SENSOR

[DEG F]

○=3:29:MAF SENSOR

[DEG F]

C
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VEH. NUMBER

V2-219

VEH. TYPE

T-CAR

POWERTRAIN:

4.6L ADOX

TEST LOCATION:

W/T #3

TEST MODES:

1. STANDARD

2. CLASS I TRAILER Idl

3. ENGINE MALFUNCTION

4.

COMMENTS:

MAX. ALLOWABLE

Temp. = 212°F

75 MPH
ROAD
LOAD

20 MI

30 MPH
7% GRADE LOAD

20 MILES

IDLE

60 MINUTES

ENGINE OFF
SOAK

30 MINUTES

3713 8622

EXHAUST SKIN TEMP VS GROUND COVER REQUIREMENT

1=306W838W:W838W3 2=GFC:GFC

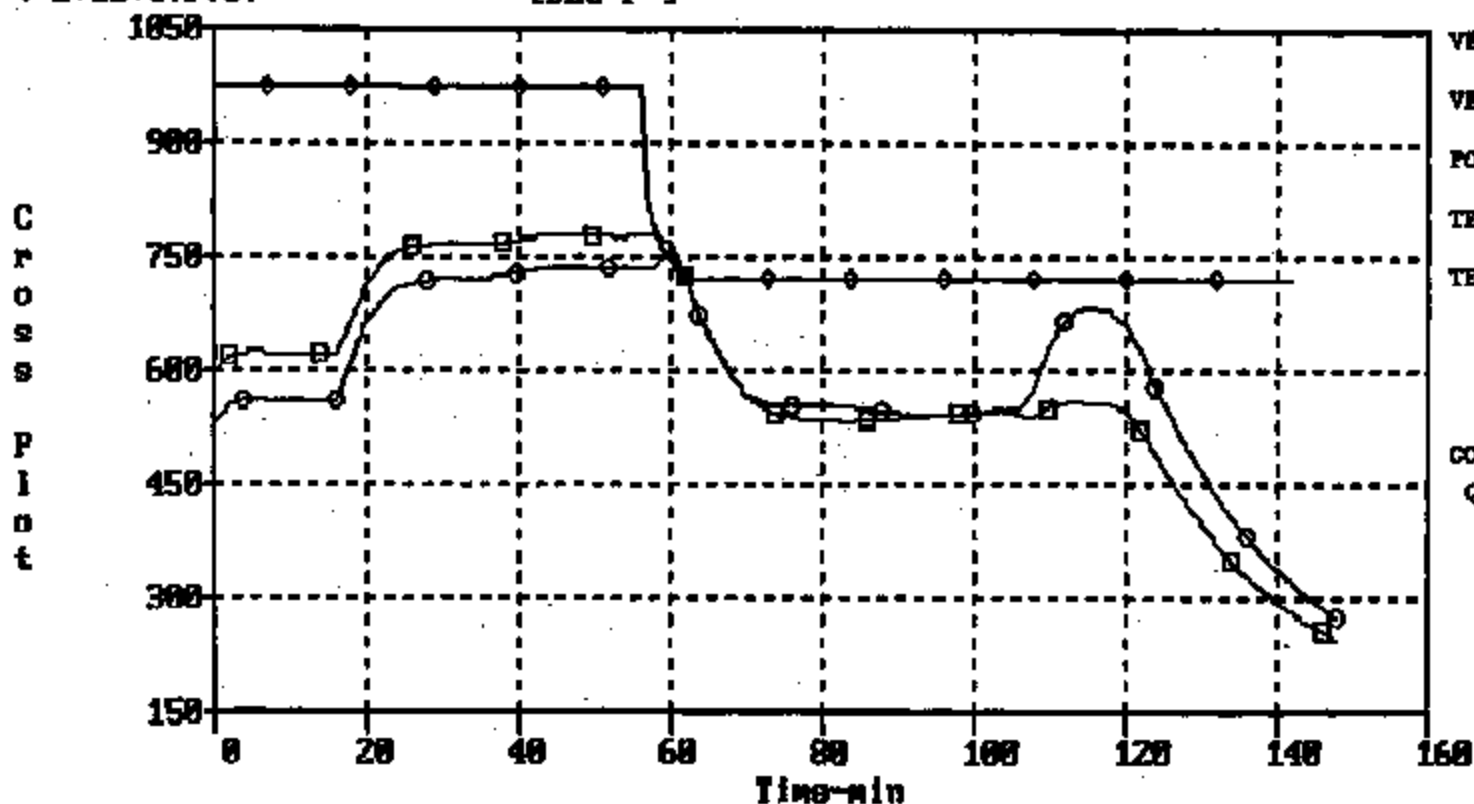
□=1:139:UBC SKIN BTM LH [DEG F]

○=1:140:UBC SKIN BTM RH [DEG F]

[DEG F]

○=2:11:G.F.C.

[DEG F]



VEH. NUMBER

VZ-219

VEH. TYPE

T'CAR

POWERTRAIN:

46L RODE.

TEST LOCATION:

W/T 3

TEST NODES:

1. STANDARD

2.

3.

4.

COMMENTS:

Grass Shield Released

3713 8823

75 MPH
ROAD
LOAD

20 MI

30 MPH
7% GRADE LOAD

20 MILES

IDLE

60 MINUTES

ENGINE OFF
SOAK

30 MINUTES

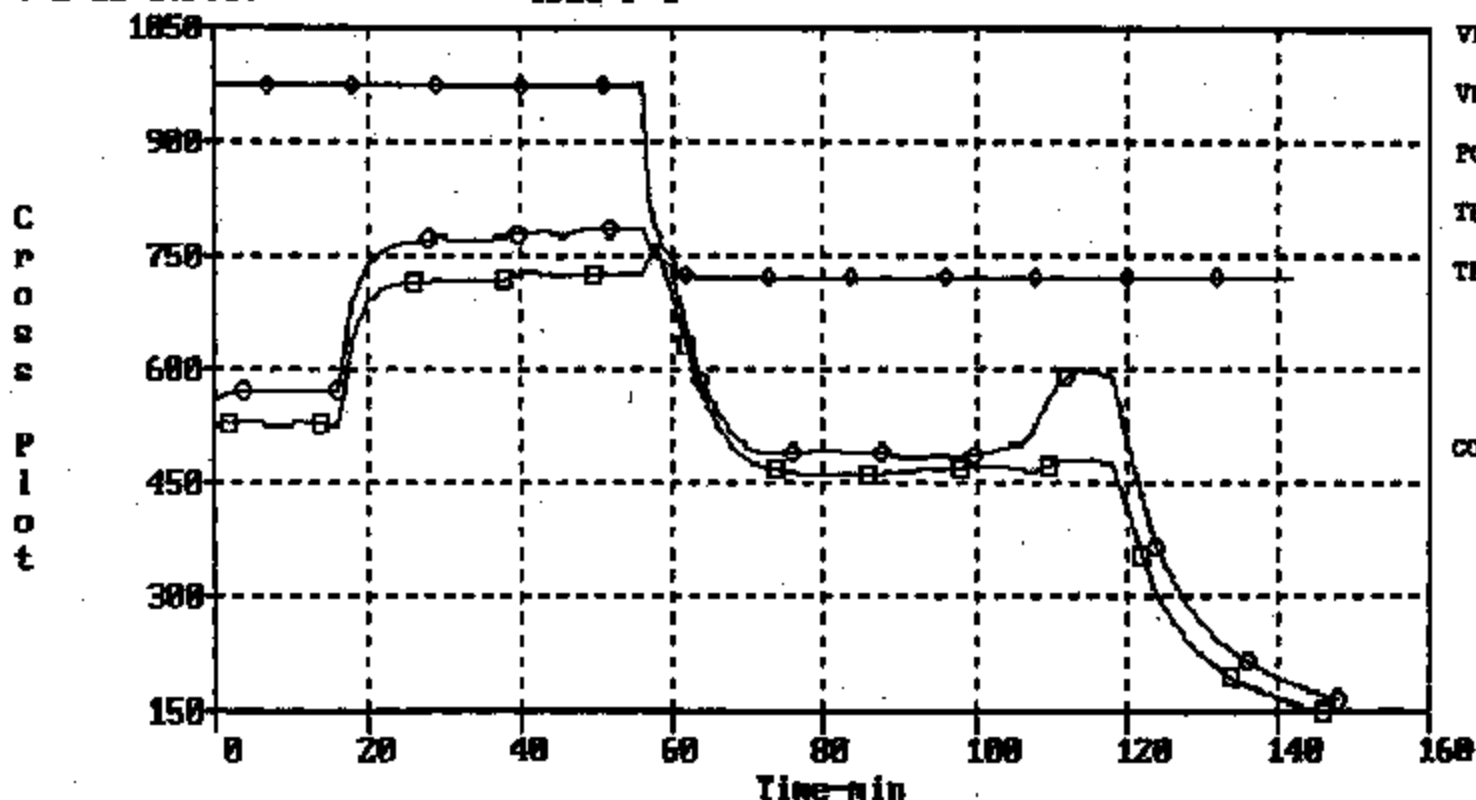
EXHAUST SKIN TEMP. VS GROUND COVER REQUIREMENT

1=306W838W:W838W3 2=GFC:GFC

□=1:143:EXH PIPE 6"RR UBC LH(DEG F)

○=1:144:EXH PIPE 6"RR UBC RH(DEG F)

◇=2:11:G.F.C. (DEG F)



VEH. NUMBER

V2-219

VEH. TYPE

T-CAR

POWERTRAIN:

4.6L AODE

TEST LOCATION:

W/T #3

TEST MODES:

1. STANDARD

2.

3.

4.

COMMENTS:

75 MPH
ROAD
LOAD

20 MI

30 MPH
7% GRADE LOAD

20 MILES

IDLE

60 MINUTES

ENGINE OFF
SOAK

30 MINUTES

3713 8624

TABULAR DATA SUMMARY REPORT

VEH. ID :
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
11	AMBIENT	121.9	99.6 @13:31:44 @ 20.0 m	148.2 @15:29:44 @ 138.0 m	18.0	DEG F
12	TOP WATER	225.9	206.0 @13:11:44 @ 0.0 m	244.8 @14:53:44 @ 102.0 m	11.8	DEG F
13	ENGINE OIL	225.2	174.6 @15:39:44 @ 148.0 m	249.4 @14:55:44 @ 104.0 m	22.1	DEG F
14	TRANSMISSION FLUID	221.6	183.0 @13:11:44 @ 0.0 m	240.8 @14:55:44 @ 104.0 m	14.8	DEG F
15	POWER STEERING FLUID	221.2	184.3 @13:11:44 @ 0.0 m	248.4 @14:55:44 @ 104.0 m	15.8	DEG F
16	UHOOD AMB X LF/RR	188.4	139.0 @13:11:44 @ 0.0 m	217.7 @14:51:44 @ 100.0 m	22.4	DEG F
18	ACT CONNECTOR	177.3	109.3 @13:11:44 @ 0.0 m	213.4 @14:53:44 @ 102.0 m	31.6	DEG F
19	ECT CONNECTOR	195.8	152.2 @13:11:44 @ 0.0 m	223.9 @14:53:44 @ 102.0 m	19.8	DEG F
20	TP SENSOR	179.9	140.2 @13:11:44 @ 0.0 m	207.9 @14:55:44 @ 104.0 m	20.3	DEG F
21	CRANK POSITION SEN.	195.4	154.2 @13:11:44 @ 0.0 m	224.2 @14:53:44 @ 102.0 m	19.1	DEG F
22	CAM POSITION SEN.	196.4	150.6 @13:11:44 @ 0.0 m	223.0 @14:53:44 @ 102.0 m	19.8	DEG F
23	EDIS MODULE (1)	167.1	120.2 @13:11:44 @ 0.0 m	213.7 @14:59:44 @ 108.0 m	35.6	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
24	EDIS MODULE (2)	164.3	117.9 @13:11:44 @ 0.0 m	209.4 @14:57:44 @ 106.0 m	35.7	DEG F
25	LH IGNITION COIL AMB	189.3	152.3 @13:11:44 @ 0.0 m	218.2 @14:51:44 @ 100.0 m	18.4	DEG F
26	RH IGNITION COIL AMB	183.4	149.6 @13:11:44 @ 0.0 m	217.2 @14:53:44 @ 102.0 m	21.9	DEG F
27	OIL PRESSURE SENDER	194.1	146.6 @13:11:44 @ 0.0 m	233.0 @14:55:44 @ 104.0 m	26.5	DEG F
28	H2O TEMP SENDER	219.0	189.9 @13:11:44 @ 0.0 m	240.5 @14:53:44 @ 102.0 m	13.5	DEG F
29	MAF SENSOR	182.8	109.1 @13:11:44 @ 0.0 m	215.6 @14:53:44 @ 102.0 m	30.9	DEG F
30	EEC POWER RELAY	191.0	125.7 @13:11:44 @ 0.0 m	241.5 @15:09:44 @ 118.0 m	39.2	DEG F
31	FUEL PUMP RELAY	201.7	138.1 @13:11:44 @ 0.0 m	250.5 @15:09:44 @ 118.0 m	37.0	DEG F
32	ISC MOTOR	201.2	165.6 @13:11:44 @ 0.0 m	233.9 @14:53:44 @ 102.0 m	19.6	DEG F
33	EVR SOLENOID	184.8	144.1 @13:11:44 @ 0.0 m	211.6 @14:53:44 @ 102.0 m	18.6	DEG F
34	EVR REGULATOR	179.0	139.1 @13:11:44 @ 0.0 m	208.1 @14:55:44 @ 104.0 m	20.6	DEG F
35	VAC HOSE FORE EVR	188.7	163.5 @13:11:44 @ 0.0 m	210.0 @14:55:44 @ 104.0 m	13.0	DEG F

TABULAR DATA SUMMARY REPORT

VER. ID : XXXXXXXXXX
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
36	VAC HOSE AFT OF EVR	187.7	166.4 @15:39:44 @ 148.0 m	208.5 @14:55:44 @ 104.0 m	12.5	DEG F
38	SPEED CONTROL SERVO	170.5	116.4 @13:11:44 @ 0.0 m	205.9 @15:05:44 @ 114.0 m	30.2	DEG F
39	THROTTLE BODY @TPS	170.7	123.3 @13:11:44 @ 0.0 m	207.1 @14:53:44 @ 102.0 m	30.4	DEG F
40	ACCELERATOR CABLE	193.0	149.2 @13:11:44 @ 0.0 m	221.9 @14:53:44 @ 102.0 m	19.6	DEG F
41	SPEED CONTROL CABLE	195.3	153.2 @13:11:44 @ 0.0 m	221.8 @14:53:44 @ 102.0 m	18.3	DEG F
42	DAYLIGHT RUN MODULE	144.5	98.4 @13:33:44 @ 22.0 m	184.3 @14:53:44 @ 102.0 m	37.1	DEG F
43	PURGE CONTROL SOLE.	174.5	116.1 @13:11:44 @ 0.0 m	202.6 @14:53:44 @ 102.0 m	25.2	DEG F
44	ALTERNATOR INLET AIR	181.5	138.1 @13:11:44 @ 0.0 m	205.0 @14:55:44 @ 104.0 m	17.6	DEG F
48	WIRING @ MLPS	196.0	142.1 @13:11:44 @ 0.0 m	236.3 @14:53:44 @ 102.0 m	32.0	DEG F
49	WIRING @ VSS	185.5	127.4 @15:39:44 @ 148.0 m	227.4 @14:15:44 @ 64.0 m	31.8	DEG F
50	WIRING@NEUTRL SWITCH	187.6	149.5 @15:39:44 @ 148.0 m	218.9 @15:07:44 @ 116.0 m	22.8	DEG F
51	A/C EVAP CASE BTM	180.7	129.3 @13:11:44 @ 0.0 m	245.4 @14:11:44 @ 60.0 m	24.0	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
52	A/C EVAP CASE BTM	106.6	81.7 @13:29:44 @ 18.0 m	140.1 @15:15:44 @ 124.0 m	20.9	DEG F
53	A/C EVAP CASE BTM	123.3	92.9 @13:11:44 @ 0.0 m	174.1 @15:13:44 @ 122.0 m	22.6	DEG F
54	A/C COMPRESS MANIFOLD	188.0	166.7 @13:57:44 @ 46.0 m	210.0 @14:53:44 @ 102.0 m	14.0	DEG F
55	A/C COMPRESS DISC TUBE	195.6	171.2 @15:39:44 @ 148.0 m	225.5 @14:53:44 @ 102.0 m	15.3	DEG F
56	FUEL PRESSURE REG	154.6	128.7 @13:11:44 @ 0.0 m	191.1 @15:39:44 @ 148.0 m	16.0	DEG F
57	FUEL RAIL SUPPLY	145.9	117.3 @13:11:44 @ 0.0 m	188.2 @15:37:44 @ 146.0 m	19.7	DEG F
58	FUEL RAIL RETURN	147.5	118.5 @13:11:44 @ 0.0 m	188.0 @15:37:44 @ 146.0 m	19.0	DEG F
60	WIRING NR RH COIL	185.8	145.3 @13:11:44 @ 0.0 m	216.0 @14:51:44 @ 100.0 m	20.4	DEG F
61	ACT WIRINGSCNTRL ARM	203.5	182.2 @13:11:44 @ 0.0 m	227.8 @14:23:44 @ 72.0 m	11.5	DEG F
62	BLOWER RESIST HARNES	188.6	146.5 @13:11:44 @ 0.0 m	217.4 @14:53:44 @ 102.0 m	18.6	DEG F
63	MAFS WIRING NR PFE	177.9	142.3 @13:11:44 @ 0.0 m	207.1 @14:53:44 @ 102.0 m	19.6	DEG F
64	WIRING NR THERM HSG	192.6	147.3 @13:11:44 @ 0.0 m	221.5 @14:53:44 @ 102.0 m	20.9	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
65	WIRING @ ABS PUMP	191.8	147.1 @13:11:44 @ 0.0 m	222.3 @14:53:44 @ 102.0 m	21.8	DEG F
66	WIRING@LH VLV CVR RR	183.2	142.6 @13:11:44 @ 0.0 m	210.7 @14:55:44 @ 104.0 m	19.9	DEG F
67	STARTER CABLE @MAN	189.5	130.5 @13:11:44 @ 0.0 m	218.1 @14:55:44 @ 104.0 m	24.4	DEG F
68	STARTER CABLE @HEAD	188.4	139.9 @13:11:44 @ 0.0 m	211.8 @15:01:44 @ 110.0 m	17.5	DEG F
69	STARTER CABLE @START	222.9	169.3 @13:11:44 @ 0.0 m	248.1 @14:13:44 @ 62.0 m	20.2	DEG F
70	STARTER MAGNET	214.9	162.6 @13:11:44 @ 0.0 m	238.6 @14:57:44 @ 106.0 m	19.8	DEG F
72	BRK MASTER CYL	182.5	131.3 @13:11:44 @ 0.0 m	208.4 @14:55:44 @ 104.0 m	23.8	DEG F
73	BRK VAC BOOSTER	190.0	142.3 @13:11:44 @ 0.0 m	213.8 @14:55:44 @ 104.0 m	19.7	DEG F
74	POWER DIST BOX AMB I	178.0	108.7 @13:21:44 @ 10.0 m	215.7 @14:53:44 @ 102.0 m	31.5	DEG F
75	AIR CLEANER CASE	177.4	127.2 @13:11:44 @ 0.0 m	212.5 @14:53:44 @ 102.0 m	26.4	DEG F
76	AIR CLEANER INLET	155.9	100.7 @13:11:44 @ 0.0 m	199.4 @14:53:44 @ 102.0 m	37.9	DEG F
77	A/C-RESONATOR HOSE	175.6	112.1 @13:11:44 @ 0.0 m	212.9 @14:53:44 @ 102.0 m	31.9	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
78	AIR INTAKE RESONATOR	191.4	146.1 @13:11:44 @ 0.0 m	221.1 @14:53:44 @ 102.0 m	20.8	DEG F
79	AIR INTAKE RESONATOR	184.3	139.0 @13:11:44 @ 0.0 m	217.5 @14:53:44 @ 102.0 m	24.3	DEG F
80	CARBON CANNISTER	135.3	100.2 @13:31:44 @ 20.0 m	163.2 @15:03:44 @ 112.0 m	24.8	DEG F
81	HEATER/AC BLOWER MTR	157.5	121.3 @13:11:44 @ 0.0 m	187.4 @15:01:44 @ 110.0 m	20.4	DEG F
82	SUSP BSHG FRT UP LH	196.4	147.5 @13:11:44 @ 0.0 m	223.1 @14:57:44 @ 106.0 m	22.0	DEG F
83	SUSP BSHG FRT UP RH	-178.9	126.1 @13:11:44 @ 0.0 m	204.0 @14:57:44 @ 106.0 m	21.2	DEG F
84	VALVE COVER LH	230.7	181.5 @13:11:44 @ 0.0 m	255.2 @14:15:44 @ 64.0 m	19.7	DEG F
85	VALVE COVER RH	227.2	185.1 @13:11:44 @ 0.0 m	243.4 @14:11:44 @ 60.0 m	16.0	DEG F
86	STEERING FLEX COUPL.	197.5	156.0 @13:11:44 @ 0.0 m	227.3 @14:53:44 @ 102.0 m	20.1	DEG F
87	POWER STEERING PUMP	215.1	179.0 @13:11:44 @ 0.0 m	244.6 @14:53:44 @ 102.0 m	17.1	DEG F
88	POWER STEERING ROSE	208.4	163.6 @13:11:44 @ 0.0 m	238.5 @14:53:44 @ 102.0 m	20.0	DEG F
89	AIR SUSP CMPRSS AIR	163.6	109.7 @13:11:44 @ 0.0 m	196.4 @14:53:44 @ 102.0 m	26.6	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
91	SPEED CNTRL SERVO	166.3	110.4 @13:11:44 @ 0.0 m	202.8 @15:01:44 @ 110.0 m	32.9	DEG F
92	A/C DISCHARGE AIR	68.1	35.4 @13:13:44 @ 2.0 m	126.7 @15:39:44 @ 148.0 m	29.0	DEG F
93	TOEBD TOP LH	218.2	141.5 @13:11:44 @ 0.0 m	258.2 @14:57:44 @ 106.0 m	36.1	DEG F
94	TOEBD TOP RH	174.6	123.6 @13:11:44 @ 0.0 m	211.1 @15:13:44 @ 122.0 m	20.8	DEG F
95	TOEBOARD BTM LH	212.2	138.3 @13:11:44 @ 0.0 m	250.9 @15:07:44 @ 116.0 m	35.9	DEG F
96	TOEBOARD BTM RH	191.7	131.4 @13:11:44 @ 0.0 m	219.5 @15:11:44 @ 120.0 m	24.1	DEG F
97	FLR OVER CAT LH	208.8	146.6 @13:11:44 @ 0.0 m	260.5 @14:15:44 @ 64.0 m	36.2	DEG F
98	FLR OVER CAT RH	195.0	137.9 @13:11:44 @ 0.0 m	237.6 @15:09:44 @ 118.0 m	24.1	DEG F
99	FLR OVER CAT OUT LH	216.0	141.7 @15:39:44 @ 148.0 m	285.5 @14:13:44 @ 62.0 m	38.3	DEG F
100	FLR OVER CAT OUT RH	199.2	154.0 @13:11:44 @ 0.0 m	226.6 @14:11:44 @ 60.0 m	19.5	DEG F
101	FLR 4" RR UBC LH	196.7	134.1 @15:39:44 @ 148.0 m	237.2 @14:13:44 @ 62.0 m	29.6	DEG F
102	FLR 4" RR UBC RH	194.2	150.4 @13:11:44 @ 0.0 m	227.2 @14:11:44 @ 60.0 m	19.3	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
104	FLR OVER MUFF INLET	168.3	126.8 @15:39:44 @ 148.0 m	210.8 @14:13:44 @ 62.0 m	21.2	DEG F
106	FLR OVER MUFF FRT	214.0	134.5 @15:39:44 @ 148.0 m	308.7 @14:11:44 @ 60.0 m	40.6	DEG F
108	FLR OVER MUFF RR	194.4	141.9 @13:11:44 @ 0.0 m	243.4 @14:15:44 @ 64.0 m	27.5	DEG F
109	FLR IN KICKUP	152.6	120.3 @13:11:44 @ 0.0 m	177.7 @14:15:44 @ 64.0 m	15.1	DEG F
110	FLR IN TRUNK	141.1	116.6 @13:11:44 @ 0.0 m	165.3 @14:13:44 @ 62.0 m	11.3	DEG F
118	S.BELT TAB RR INB LH	128.6	107.6 @13:11:44 @ 0.0 m	139.2 @14:27:44 @ 76.0 m	9.5	DEG F
119	S.TRK FRT INB RH FRT	147.6	114.1 @13:11:44 @ 0.0 m	168.2 @15:11:44 @ 120.0 m	14.2	DEG F
120	S.TRK FRT INB RH RR	121.9	99.0 @13:11:44 @ 0.0 m	132.1 @15:11:44 @ 120.0 m	8.5	DEG F
121	S.TRK FRT INB LH FRT	144.0	109.9 @13:11:44 @ 0.0 m	165.0 @14:15:44 @ 64.0 m	14.8	DEG F
122	S.TRK FRT INB LH RR	111.6	95.9 @13:11:44 @ 0.0 m	120.6 @15:11:44 @ 120.0 m	6.0	DEG F
123	HEGO TIP LH	1092.8	231.8 @15:39:44 @ 148.0 m	1464.7 @14:09:44 @ 58.0 m	407.7	DEG F
124	HEGO TIP RH	1058.4	217.0 @15:39:44 @ 148.0 m	1445.2 @13:55:44 @ 44.0 m	418.4	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : WB38W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : WB38W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
125	HEGO GROMMET LH	250.2	166.4 @13:11:44 @ 0.0 m	324.1 @14:13:44 @ 62.0 m	46.3	DEG F
126	HEGO GROMMET RH	249.4	152.0 @13:11:44 @ 0.0 m	368.1 @14:13:44 @ 62.0 m	52.9	DEG F
127	HEGO HEX LH	563.2	223.2 @15:39:44 @ 148.0 m	773.2 @14:09:44 @ 58.0 m	153.9	DEG F
128	HEGO HEX RH	555.2	212.1 @15:39:44 @ 148.0 m	799.5 @14:09:44 @ 58.0 m	185.6	DEG F
129	HEGO CONNECTOR LH	186.2	138.8 @13:11:44 @ 0.0 m	214.1 @14:53:44 @ 102.0 m	21.7	DEG F
130	HEGO CONNECTOR RH	176.0	137.8 @13:11:44 @ 0.0 m	191.4 @14:53:44 @ 102.0 m	14.7	DEG F
131	EXHAUST MANIFOLD LH	649.5	220.0 @15:39:44 @ 148.0 m	952.4 @14:09:44 @ 58.0 m	233.1	DEG F
132	EXHAUST MANIFOLD RH	618.9	210.5 @15:39:44 @ 148.0 m	939.0 @14:03:44 @ 52.0 m	262.9	DEG F
133	LOC GAS LH	1090.5	420.6 @15:39:44 @ 148.0 m	1461.9 @13:59:44 @ 48.0 m	306.2	DEG F
134	LOC GAS RH	1081.2	433.1 @15:39:44 @ 148.0 m	1409.5 @14:03:44 @ 52.0 m	287.3	DEG F
135	LOC SKIN OUTBD LH	616.6	273.2 @15:39:44 @ 148.0 m	795.3 @14:11:44 @ 60.0 m	129.7	DEG F
136	LOC SKIN OUTBD RH	579.5	292.4 @15:39:44 @ 148.0 m	795.5 @15:03:44 @ 112.0 m	123.4	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
137	UBC GAS LH	988.2	421.1 @15:39:44 @ 148.0 m	1353.7 @14:09:44 @ 58.0 m	289.6	DEG F
138	UBC GAS RH	1031.3	503.8 @15:39:44 @ 148.0 m	1334.3 @14:01:44 @ 50.0 m	245.8	DEG F
139	UBC SKIN BTM LH	593.7	250.5 @15:39:44 @ 148.0 m	784.7 @14:09:44 @ 58.0 m	148.0	DEG F
140	UBC SKIN BTM RH	595.8	280.8 @15:39:44 @ 148.0 m	763.6 @14:11:44 @ 60.0 m	121.0	DEG F
141	EXH PIPE 1ST BEND LH	576.1	191.2 @15:39:44 @ 148.0 m	776.6 @13:59:44 @ 48.0 m	169.3	DEG F
142	EXH PIPE 1ST BEND RH	627.4	223.7 @15:39:44 @ 148.0 m	840.4 @14:03:44 @ 52.0 m	173.1	DEG F
143	EXH PIPE 6"RR UBC LH	509.0	151.2 @15:39:44 @ 148.0 m	770.1 @14:09:44 @ 58.0 m	177.6	DEG F
144	EXH PIPE 6"RR UBC RH	552.2	170.4 @15:39:44 @ 148.0 m	790.7 @14:03:44 @ 52.0 m	184.5	DEG F
145	EXH PIPE AT Y-JT	444.9	121.5 @15:39:44 @ 148.0 m	743.2 @14:09:44 @ 58.0 m	151.7	DEG F
146	EXH PIPE 6"FWD MUFF	434.3	122.1 @15:39:44 @ 148.0 m	676.8 @14:09:44 @ 58.0 m	156.2	DEG F
147	MUFFLER BTM CENTER	395.9	129.0 @15:39:44 @ 148.0 m	615.7 @14:09:44 @ 58.0 m	135.4	DEG F
148	EXH TOP OF KICKUP	391.5	139.0 @15:39:44 @ 148.0 m	612.9 @14:09:44 @ 58.0 m	150.3	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
149	EXH 12" FWD OUTLET	312.5	121.7 @15:39:44 @ 148.0 m	497.5 @14:09:44 @ 58.0 m	116.1	DEG F
150	STARTER GEAR	216.6	161.1 @13:11:44 @ 0.0 m	240.4 @14:57:44 @ 106.0 m	21.0	DEG F
151	ABS MODULE #1	136.5	105.3 @13:11:44 @ 0.0 m	170.8 @15:31:44 @ 140.0 m	27.5	DEG F
152	RR EXH. HANGER	142.2	113.1 @13:11:44 @ 0.0 m	160.1 @14:25:44 @ 74.0 m	12.8	DEG F
153	FRT U-JT ANB	173.1	108.3 @15:39:44 @ 148.0 m	239.5 @14:11:44 @ 60.0 m	34.4	DEG F
154	ENG MNT LH	214.7	144.0 @13:11:44 @ 0.0 m	250.8 @14:57:44 @ 106.0 m	29.7	DEG F
155	ENG MNT RH	194.6	152.2 @13:11:44 @ 0.0 m	231.7 @14:53:44 @ 102.0 m	25.5	DEG F
156	ENG MNT RR	178.4	127.6 @13:11:44 @ 0.0 m	210.9 @15:09:44 @ 118.0 m	26.1	DEG F
157	TRANS PAN GASKET LH	195.3	126.9 @13:11:44 @ 0.0 m	235.7 @14:55:44 @ 104.0 m	36.5	DEG F
158	TRANS PAN GASKET RH	199.9	129.6 @13:11:44 @ 0.0 m	236.9 @15:03:44 @ 112.0 m	34.7	DEG F
159	SPEED SENSOR	192.0	146.9 @13:11:44 @ 0.0 m	216.8 @14:55:44 @ 104.0 m	23.4	DEG F
160	STARTER SOLENOID CAP	217.8	166.3 @13:11:44 @ 0.0 m	242.6 @14:55:44 @ 104.0 m	22.3	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
161	TRANS EXTEN HSG SEAL	203.1	170.8 @15:39:44 @ 148.0 m	217.8 @14:21:44 @ 70.0 m	14.1	DEG F
162	TRAN ELEC CONN LH RR	191.2	139.5 @13:11:44 @ 0.0 m	229.8 @14:55:44 @ 104.0 m	29.4	DEG F
163	TRANS BELHSG LH	207.4	150.7 @13:11:44 @ 0.0 m	241.6 @14:57:44 @ 106.0 m	27.3	DEG F
164	TRANS BELHSG RH	206.2	145.6 @13:11:44 @ 0.0 m	239.7 @14:53:44 @ 102.0 m	28.8	DEG F
165	TRAN EXT HSG GASKET	205.3	160.7 @13:11:44 @ 0.0 m	226.2 @15:01:44 @ 110.0 m	17.3	DEG F
166	TRAN EXT HSG BUSHING	205.6	174.4 @13:11:44 @ 0.0 m	218.7 @14:19:44 @ 68.0 m	12.7	DEG F
167	TRAN FILL TUBE SKIN	209.0	152.4 @13:11:44 @ 0.0 m	237.6 @14:55:44 @ 104.0 m	25.4	DEG F
168	TRAN FILL TUBE SEAL	204.2	145.0 @13:11:44 @ 0.0 m	239.4 @15:03:44 @ 112.0 m	29.8	DEG F
169	TRAN CASE @MAN LEV	208.8	149.7 @13:11:44 @ 0.0 m	238.2 @14:57:44 @ 106.0 m	25.0	DEG F
170	ABS SENS WIRE RR RH	163.1	135.1 @13:11:44 @ 0.0 m	185.9 @14:11:44 @ 60.0 m	14.9	DEG F
171	TRAN NLPS	219.2	157.5 @13:11:44 @ 0.0 m	250.8 @14:55:44 @ 104.0 m	30.4	DEG F
172	TRAN BULKHEAD CONN	176.4	120.5 @13:11:44 @ 0.0 m	211.2 @14:55:44 @ 104.0 m	27.9	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
173	ABS MODULE #2	137.1	105.4 @13:35:44 @ 24.0 m	171.8 @15:29:44 @ 138.0 m	27.8	DEG F
174	SHIFT CABLE @ EXHMAN	226.7	143.8 @15:39:44 @ 148.0 m	289.6 @14:53:44 @ 102.0 m	51.6	DEG F
175	SHIFT CABLE @ LOC	206.6	137.2 @13:11:44 @ 0.0 m	271.3 @14:55:44 @ 104.0 m	51.2	DEG F
176	SHIFT CABLE @ UBC	196.6	137.5 @13:11:44 @ 0.0 m	240.2 @14:53:44 @ 102.0 m	32.4	DEG F
177	SHIFT CABLE SLEEVE	209.3	129.3 @15:39:44 @ 148.0 m	269.3 @14:15:44 @ 64.0 m	39.2	DEG F
178	SHIFT CABL UNDER SLV	191.3	126.8 @15:39:44 @ 148.0 m	236.1 @14:15:44 @ 64.0 m	31.5	DEG F
179	SHIFT CABL ADJ @TRAN	189.8	135.7 @15:39:44 @ 148.0 m	234.4 @15:09:44 @ 118.0 m	35.1	DEG F
180	FUEL FILTER	127.6	109.0 @13:11:44 @ 0.0 m	137.2 @15:09:44 @ 118.0 m	8.5	DEG F
181	FUEL LINE AT FILTER	126.7	108.8 @13:11:44 @ 0.0 m	137.4 @15:09:44 @ 118.0 m	8.8	DEG F
182	FUEL RET LINE @ TANK	137.3	115.4 @13:11:44 @ 0.0 m	146.9 @14:55:44 @ 104.0 m	9.4	DEG F
183	FUEL SUP LINE @ TANK	133.9	111.4 @13:11:44 @ 0.0 m	145.5 @15:19:44 @ 128.0 m	9.0	DEG F
184	FUEL TANK SKIN FRT	130.1	112.9 @13:11:44 @ 0.0 m	136.3 @13:55:44 @ 44.0 m	6.0	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
185	FUEL TANK SKIN FRT	130.0	113.3 @13:11:44 @ 0.0 m	136.7 @15:11:44 @ 120.0 m	6.3	DEG F
186	FUEL TANK SKIN FRT	144.0	117.2 @13:11:44 @ 0.0 m	160.0 @14:11:44 @ 60.0 m	10.0	DEG F
187	FUEL PUMP FLANGE	129.7	111.5 @13:11:44 @ 0.0 m	137.3 @15:13:44 @ 122.0 m	7.3	DEG F
188	FUEL LINE AT SENDER	132.3	112.1 @13:11:44 @ 0.0 m	142.4 @15:13:44 @ 122.0 m	8.0	DEG F
189	FUEL LINE PLAS. CONN	149.6	126.6 @13:11:44 @ 0.0 m	166.2 @14:13:44 @ 62.0 m	10.0	DEG F
190	FUEL IN TANK	126.4	105.5 @13:11:44 @ 0.0 m	134.7 @15:09:44 @ 118.0 m	8.1	DEG F
191	PARK BRK CABLE @ MUF	81.2	-244.6 @13:27:44 @ 16.0 m	181.6 @14:11:44 @ 60.0 m	114.5	DEG F
192	AIR SPRING UP CAP RH	156.1	117.3 @13:11:44 @ 0.0 m	171.8 @14:43:44 @ 92.0 m	16.8	DEG F
193	AIR SPRING SLV RH RR	154.6	124.6 @13:11:44 @ 0.0 m	170.9 @14:13:44 @ 62.0 m	12.0	DEG F
194	AIR SPRING SOLE. RH	155.4	117.0 @13:11:44 @ 0.0 m	173.8 @14:43:44 @ 92.0 m	18.3	DEG F
195	AIR SPRING PRES LINE	156.3	117.1 @13:11:44 @ 0.0 m	182.0 @14:23:44 @ 72.0 m	18.9	DEG F
196	AIR SUSP HT SENS SKT	138.9	117.2 @13:11:44 @ 0.0 m	151.0 @14:15:44 @ 64.0 m	10.8	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3
 TEST DESC: SIGNOFF
 TEST DATE: 25 JUN 91
 DATAFILE : W838W3

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
197	AIR SUSP HT SENS ELE	149.0	118.5 @13:11:44 @ 0.0 m	168.5 @14:19:44 @ 68.0 m	15.1	DEG F
198	ABS MODULE #3	134.7	101.6 @13:35:44 @ 24.0 m	172.6 @15:31:44 @ 140.0 m	29.2	DEG F
199	ABS MODULE #4	134.5	101.9 @13:11:44 @ 0.0 m	172.5 @15:31:44 @ 140.0 m	29.1	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID :
 TEST ID : W838WST
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
11	AMBIENT	119.3	99.4 @11:50:20 @ 19.5 m	146.8 @13:58:20 @ 147.5 m	17.3	DEG F
12	TOP WATER	228.3	207.9 @11:30:50 @ 0.0 m	247.7 @12:40:20 @ 69.5 m	11.8	DEG F
13	ENGINE OIL	230.3	180.7 @14:00:20 @ 149.5 m	252.6 @13:04:20 @ 93.5 m	21.7	DEG F
14	TRANSMISSION FLUID	239.2	180.7 @11:30:50 @ 0.0 m	266.0 @12:24:20 @ 53.5 m	23.6	DEG F
15	POWER STEERING FLUID	226.7	187.7 @11:30:50 @ 0.0 m	247.6 @13:04:20 @ 93.5 m	14.7	DEG F
16	UHOOD AMB X LF/RR	190.6	142.3 @11:36:50 @ 6.0 m	219.7 @12:48:20 @ 77.5 m	22.3	DEG F
18	ACT CONNECTOR	180.1	112.7 @11:30:50 @ 0.0 m	213.6 @13:04:20 @ 93.5 m	30.4	DEG F
19	ECT CONNECTOR	197.6	161.6 @11:30:50 @ 0.0 m	224.8 @12:52:20 @ 81.5 m	18.6	DEG F
20	TP SENSOR	183.7	150.0 @11:30:50 @ 0.0 m	209.1 @13:10:20 @ 99.5 m	18.2	DEG F
21	CRANK POSITION SEN.	198.9	161.8 @11:30:50 @ 0.0 m	225.9 @12:52:20 @ 81.5 m	18.4	DEG F
22	CAM POSITION SEN.	197.6	157.2 @11:30:50 @ 0.0 m	224.3 @12:52:20 @ 81.5 m	19.9	DEG F
23	EDIS MODULE (1)	175.7	120.0 @11:30:50 @ 0.0 m	215.5 @13:16:20 @ 105.5 m	31.7	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838Wst
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
24	EDIS MODULE (2)	172.7	118.0 @11:30:50 @ 0.0 m	211.4 @13:16:20 @ 105.5 m	31.8	DEG F
25	LH IGNITION COIL AMB	190.0	157.4 @11:30:50 @ 0.0 m	219.2 @13:10:20 @ 99.5 m	18.4	DEG F
26	RH IGNITION COIL AMB	188.8	157.3 @11:30:50 @ 0.0 m	219.0 @13:00:20 @ 89.5 m	18.5	DEG F
27	OIL PRESSURE SENDER	199.0	154.9 @11:30:50 @ 0.0 m	234.8 @13:04:20 @ 93.5 m	24.8	DEG F
28	H2O TEMP SENDER	220.9	193.8 @11:30:50 @ 0.0 m	242.5 @12:52:20 @ 81.5 m	13.4	DEG F
29	MAF SENSOR	183.8	109.0 @11:46:50 @ 16.0 m	215.8 @13:04:20 @ 93.5 m	31.0	DEG F
30	BEC POWER RELAY	201.1	122.7 @11:30:50 @ 0.0 m	241.5 @13:26:20 @ 115.5 m	37.9	DEG F
31	FUEL PUMP RELAY	209.5	138.7 @11:30:50 @ 0.0 m	249.4 @13:30:20 @ 119.5 m	34.8	DEG F
32	ISC MOTOR	210.5	175.0 @11:30:50 @ 0.0 m	236.6 @13:04:20 @ 93.5 m	17.2	DEG F
33	EVR SOLENOID	189.9	153.6 @11:30:50 @ 0.0 m	213.6 @13:04:20 @ 93.5 m	16.6	DEG F
34	EVR REGULATOR	185.4	146.9 @11:30:50 @ 0.0 m	211.2 @13:10:20 @ 99.5 m	19.0	DEG F
35	VAC HOSE FORE EVR	203.1	173.5 @14:00:20 @ 149.5 m	223.5 @12:32:20 @ 61.5 m	14.2	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838wat
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
36	VAC HOSE AFT OF EVR	206.5	171.7 @14:00:20 @ 149.5 m	229.9 @12:00:20 @ 29.5 m	16.1	DEG F
38	SPEED CONTROL SERVO	176.8	113.8 @11:30:50 @ 0.0 m	208.3 @13:18:20 @ 107.5 m	30.4	DEG F
39	THROTTLE BODY @TPS	176.9	130.3 @11:44:50 @ 14.0 m	208.8 @13:04:20 @ 93.5 m	27.2	DEG F
40	ACCELERATOR CABLE	194.6	159.2 @11:30:50 @ 0.0 m	222.6 @12:52:20 @ 81.5 m	18.4	DEG F
41	SPEED CONTROL CABLE	198.7	165.5 @11:46:50 @ 16.0 m	223.7 @12:52:20 @ 81.5 m	16.6	DEG F
42	DAYLIGHT RUN MODULE	144.1	98.6 @11:50:20 @ 19.5 m	183.2 @13:00:20 @ 89.5 m	37.2	DEG F
43	PURGE CONTROL SOLE.	180.8	118.2 @11:30:50 @ 0.0 m	205.2 @13:04:20 @ 93.5 m	24.9	DEG F
44	ALTERNATOR INLET AIR	187.6	150.3 @11:30:50 @ 0.0 m	211.5 @13:02:20 @ 91.5 m	16.9	DEG F
48	WIRING @ MLPS	204.4	147.2 @11:30:50 @ 0.0 m	247.6 @13:04:20 @ 93.5 m	36.6	DEG F
49	WIRING @ VSS	192.7	130.0 @14:00:20 @ 149.5 m	235.8 @12:36:20 @ 65.5 m	35.2	DEG F
50	WIRING@NEUTRL SWITCH	198.2	150.4 @14:00:20 @ 149.5 m	231.2 @12:48:20 @ 77.5 m	27.4	DEG F
51	A/C EVAP CASE BTM	196.0	141.6 @11:30:50 @ 0.0 m	279.8 @12:34:20 @ 63.5 m	29.2	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838WST
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
52	A/C EVAP CASE BTM	122.2	97.1 @11:50:20 @ 19.5 m	153.8 @13:34:20 @ 123.5 m	20.6	DEG F
53	A/C EVAP CASE BTM	136.1	94.7 @11:30:50 @ 0.0 m	182.1 @13:32:20 @ 121.5 m	26.5	DEG F
54	A/C COMPRESS MANIFOLD	220.5	186.3 @12:42:20 @ 71.5 m	246.8 @12:24:20 @ 53.5 m	18.1	DEG F
55	A/C COMPRESS DISC TUBE	226.9	177.7 @14:00:20 @ 149.5 m	257.1 @12:24:20 @ 53.5 m	25.5	DEG F
56	FUEL PRESSURE REG	155.8	129.5 @11:30:50 @ 0.0 m	195.0 @14:00:20 @ 149.5 m	16.1	DEG F
57	FUEL RAIL SUPPLY	148.5	113.3 @11:30:50 @ 0.0 m	192.6 @14:00:20 @ 149.5 m	20.8	DEG F
58	FUEL RAIL RETURN	148.9	113.6 @11:30:50 @ 0.0 m	192.3 @14:00:20 @ 149.5 m	20.5	DEG F
60	WIRING NR RH COIL	189.3	154.1 @11:30:50 @ 0.0 m	218.5 @12:52:20 @ 81.5 m	18.8	DEG F
61	ACT WIRING@CNTRL ARM	201.7	184.1 @11:52:20 @ 21.5 m	228.3 @13:02:20 @ 91.5 m	13.4	DEG F
62	BLOWER RESIST HARNES	193.4	154.7 @11:30:50 @ 0.0 m	221.4 @13:02:20 @ 91.5 m	18.1	DEG F
63	MAPS WIRING NR PFE	183.2	148.4 @11:30:50 @ 0.0 m	210.0 @13:04:20 @ 93.5 m	18.3	DEG F
64	WIRING NR THERM HSG	195.0	155.6 @11:30:50 @ 0.0 m	223.0 @12:52:20 @ 81.5 m	20.0	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3M
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
104	FLR OVER MUFF INLET	201.0	140.5 @17:22:37 @ 154.0 m	245.5 @15:40:37 @ 52.0 m	33.9	DEG F
106	FLR OVER MUFF FRT	257.9	146.6 @17:22:37 @ 154.0 m	349.2 @15:54:37 @ 66.0 m	64.5	DEG F
108	FLR OVER MUFF RR	245.6	147.0 @14:48:37 @ 0.0 m	342.8 @15:52:37 @ 64.0 m	61.6	DEG F
109	FLR IN KICKUP	178.7	125.0 @14:48:37 @ 0.0 m	220.9 @15:52:37 @ 64.0 m	23.3	DEG F
110	FLR IN TRUNK	161.6	122.2 @14:48:37 @ 0.0 m	198.4 @15:50:37 @ 62.0 m	19.0	DEG F
118	S.BELT TAB RR INB LH	145.9	113.9 @14:48:37 @ 0.0 m	167.8 @16:02:37 @ 74.0 m	15.6	DEG F
119	S.TRK FRT INB RH FRT	189.4	131.5 @14:48:37 @ 0.0 m	225.4 @15:52:37 @ 64.0 m	27.4	DEG F
120	S.TRK FRT INB RH RR	157.5	120.0 @14:48:37 @ 0.0 m	176.1 @15:52:37 @ 64.0 m	15.4	DEG F
121	S.TRK FRT INB LH FRT	165.5	121.6 @14:48:37 @ 0.0 m	188.4 @15:56:37 @ 68.0 m	18.9	DEG F
122	S.TRK FRT INB LH RR	135.3	112.9 @14:48:37 @ 0.0 m	146.6 @16:52:37 @ 124.0 m	9.4	DEG F
123	HEGO TIP LH	1115.4	234.9 @17:22:37 @ 154.0 m	1580.5 @15:16:37 @ 28.0 m	449.8	DEG F
124	HEGO TIP RH	969.9	216.9 @17:22:37 @ 154.0 m	1337.7 @15:28:37 @ 40.0 m	381.0	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3M
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
125	HEGO GROMMET LH	265.1	162.9 @14:48:37 @ 0.0 m	393.3 @15:54:37 @ 66.0 m	55.8	DEG F
126	HEGO GROMMET RH	240.5	144.6 @14:48:37 @ 0.0 m	346.2 @15:52:37 @ 64.0 m	47.9	DEG F
127	HEGO HEX LH	592.1	224.9 @17:22:37 @ 154.0 m	860.7 @15:16:37 @ 28.0 m	194.5	DEG F
128	HEGO HEX RH	514.3	211.7 @17:22:37 @ 154.0 m	774.9 @15:16:37 @ 28.0 m	177.6	DEG F
129	HEGO CONNECTOR LH	188.1	140.2 @14:48:37 @ 0.0 m	212.5 @15:58:37 @ 70.0 m	21.3	DEG F
130	HEGO CONNECTOR RH	180.2	139.2 @14:48:37 @ 0.0 m	197.1 @16:58:37 @ 130.0 m	14.9	DEG F
131	EXHAUST MANIFOLD LH	695.4	221.3 @17:22:37 @ 154.0 m	1117.2 @15:16:37 @ 28.0 m	300.9	DEG F
132	EXHAUST MANIFOLD RH	570.9	209.1 @17:22:37 @ 154.0 m	928.9 @15:16:37 @ 28.0 m	253.5	DEG F
133	LOC GAS LH	1178.0	484.0 @17:22:37 @ 154.0 m	1689.3 @16:46:37 @ 118.0 m	343.0	DEG F
134	LOC GAS RH	1552.0	463.9 @17:22:37 @ 154.0 m	2036.5 @15:40:37 @ 52.0 m	448.8	DEG F
135	LOC SKIN OUTBD LH	675.6	318.0 @17:22:37 @ 154.0 m	909.0 @16:50:37 @ 122.0 m	154.2	DEG F
136	LOC SKIN OUTBD RH	826.2	319.4 @17:22:37 @ 154.0 m	1022.6 @15:50:37 @ 62.0 m	195.8	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3M
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
137	UBC GAS LH	1074.2	502.1 @17:22:37 @ 154.0 m	1490.3 @15:16:37 @ 28.0 m	329.2	DEG F
138	UBC GAS RH	1455.8	522.5 @17:22:37 @ 154.0 m	1978.9 @15:28:37 @ 40.0 m	427.6	DEG F
139	UBC SKIN BTM LH	648.6	294.3 @17:22:37 @ 154.0 m	914.5 @15:16:37 @ 28.0 m	181.0	DEG F
140	UBC SKIN BTM RH	831.8	306.5 @17:22:37 @ 154.0 m	1120.9 @15:16:37 @ 28.0 m	223.8	DEG F
141	EXH PIPE 1ST BEND LH	621.9	221.4 @17:22:37 @ 154.0 m	902.7 @15:16:37 @ 28.0 m	198.5	DEG F
142	EXH PIPE 1ST BEND RH	904.1	243.2 @17:22:37 @ 154.0 m	1281.3 @15:28:37 @ 40.0 m	308.7	DEG F
143	EXH PIPE 6"RR UBC LH	543.6	159.3 @17:22:37 @ 154.0 m	862.2 @15:16:37 @ 28.0 m	218.2	DEG F
144	EXH PIPE 6"RR UBC RH	745.4	177.1 @17:22:37 @ 154.0 m	1141.8 @15:16:37 @ 28.0 m	302.1	DEG F
145	EXH PIPE AT Y-JT	561.3	132.8 @17:22:37 @ 154.0 m	903.7 @15:38:37 @ 50.0 m	238.1	DEG F
146	EXH PIPE 6"FWD MUFF	559.7	133.6 @17:22:37 @ 154.0 m	971.9 @15:16:37 @ 28.0 m	272.7	DEG F
147	MUFFLER BTM CENTER	529.1	138.9 @17:22:37 @ 154.0 m	945.9 @15:16:37 @ 28.0 m	264.2	DEG F
148	EXH TOP OF KICKUP	516.5	150.9 @17:22:37 @ 154.0 m	937.6 @15:16:37 @ 28.0 m	273.6	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3M
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
149	EXH 12" FWD OUTLET	420.4	133.7 @17:22:37 @ 154.0 m	789.6 @15:16:37 @ 28.0 m	227.2	DEG F
150	STARTER GEAR	219.1	167.3 @14:48:37 @ 0.0 m	244.6 @16:10:37 @ 82.0 m	21.6	DEG F
151	ABS MODULE #1	137.7	105.1 @15:06:37 @ 18.0 m	173.6 @17:12:37 @ 144.0 m	28.2	DEG F
152	RR EXH. HANGER	159.4	116.4 @14:48:37 @ 0.0 m	181.3 @16:04:37 @ 76.0 m	17.1	DEG F
153	FRT U-JT AMB	184.4	119.6 @17:18:37 @ 150.0 m	247.1 @15:50:37 @ 62.0 m	38.3	DEG F
154	ENG MNT LH	217.1	146.6 @14:48:37 @ 0.0 m	250.6 @16:36:37 @ 108.0 m	28.2	DEG F
155	ENG MNT RH	192.9	147.4 @14:48:37 @ 0.0 m	229.9 @16:08:37 @ 80.0 m	24.0	DEG F
156	ENG MNT RR	193.8	131.3 @14:48:37 @ 0.0 m	233.4 @16:18:37 @ 90.0 m	32.2	DEG F
157	TRANS PAN GASKET LH	207.0	130.6 @14:48:37 @ 0.0 m	252.7 @16:04:37 @ 76.0 m	35.1	DEG F
158	TRANS PAN GASKET RH	217.7	134.9 @14:48:37 @ 0.0 m	266.6 @16:02:37 @ 74.0 m	36.1	DEG F
159	SPEED SENSOR	207.6	152.7 @14:48:37 @ 0.0 m	242.4 @16:08:37 @ 80.0 m	30.8	DEG F
160	STARTER SOENOID CAP	213.4	155.3 @14:48:37 @ 0.0 m	242.7 @16:08:37 @ 80.0 m	24.1	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3M
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
161	TRANS EXTEN HSG SEAL	224.0	176.5 @17:22:37 @ 154.0 m	249.1 @15:52:37 @ 64.0 m	23.9	DEG F
162	TRAN ELEC CONN LH RR	200.9	140.1 @14:48:37 @ 0.0 m	243.5 @16:08:37 @ 80.0 m	33.1	DEG F
163	TRANS BELLHSG LH	216.4	154.4 @14:48:37 @ 0.0 m	253.4 @16:06:37 @ 78.0 m	27.7	DEG F
164	TRANS BELLHSG RH	216.1	148.3 @14:48:37 @ 0.0 m	258.7 @16:02:37 @ 74.0 m	30.3	DEG F
165	TRAN EXT HSG GASKET	225.8	171.4 @14:48:37 @ 0.0 m	252.6 @16:02:37 @ 74.0 m	24.8	DEG F
166	TRAN EXT HSG BUSHING	227.3	180.6 @17:22:37 @ 154.0 m	250.3 @15:56:37 @ 68.0 m	23.0	DEG F
167	TRAN FILL TUBE SKIN	225.3	159.0 @14:48:37 @ 0.0 m	265.9 @16:02:37 @ 74.0 m	28.6	DEG F
168	TRAN FILL TUBE SEAL	221.2	148.9 @14:48:37 @ 0.0 m	273.2 @16:02:37 @ 74.0 m	34.3	DEG F
169	TRAN CASE @MAN LEV	220.6	155.4 @14:48:37 @ 0.0 m	256.1 @16:06:37 @ 78.0 m	27.4	DEG F
170	ABS SENS WIRE RR RH	195.5	137.0 @14:48:37 @ 0.0 m	249.6 @15:42:37 @ 54.0 m	32.4	DEG F
171	TRAN MLPS	218.2	160.3 @14:48:37 @ 0.0 m	248.8 @16:52:37 @ 124.0 m	25.6	DEG F
172	TRAN BULKHEAD CONN	177.9	121.2 @14:48:37 @ 0.0 m	203.8 @16:56:37 @ 128.0 m	25.3	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3M
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
173	ABS MODULE #2	138.1	105.0 @14:48:37 @ 0.0 m	174.5 @17:12:37 @ 144.0 m	28.6	DEG F
174	SHIFT CABLE @ EXHMAN	232.1	147.6 @14:48:37 @ 0.0 m	294.3 @16:08:37 @ 80.0 m	47.1	DEG F
175	SHIFT CABLE @ LOC	214.1	136.1 @14:48:37 @ 0.0 m	276.3 @15:56:37 @ 68.0 m	47.1	DEG F
176	SHIFT CABLE @ UBC	202.8	137.9 @14:48:37 @ 0.0 m	251.0 @16:08:37 @ 80.0 m	34.1	DEG F
177	SHIFT CABLE SLEEVE	222.2	135.6 @17:22:37 @ 154.0 m	291.5 @15:52:37 @ 64.0 m	43.8	DEG F
178	SHIFT CABL UNDER SLV	204.9	132.9 @17:22:37 @ 154.0 m	253.1 @15:54:37 @ 66.0 m	37.2	DEG F
179	SHIFT CABL ADJ @TRAN	197.3	137.4 @14:48:37 @ 0.0 m	245.9 @16:02:37 @ 74.0 m	36.4	DEG F
180	FUEL FILTER	143.1	119.8 @14:48:37 @ 0.0 m	156.8 @15:52:37 @ 64.0 m	11.3	DEG F
181	FUEL LINE AT FILTER	141.0	121.3 @14:48:37 @ 0.0 m	155.5 @15:54:37 @ 66.0 m	11.4	DEG F
182	FUEL RET LINE @ TANK	153.0	123.4 @14:48:37 @ 0.0 m	165.7 @15:56:37 @ 68.0 m	12.1	DEG F
183	FUEL SUP LINE @ TANK	152.8	125.8 @14:48:37 @ 0.0 m	166.7 @16:58:37 @ 130.0 m	11.3	DEG F
184	FUEL TANK SKIN FRT	151.2	131.6 @14:48:37 @ 0.0 m	166.5 @15:48:37 @ 60.0 m	8.7	DEG F

TABULAR DATA SUMMARY REPORT

VXH. ID : XXXXXXXXXX
 TEST ID : w838w3m
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
185	FUEL TANK SKIN FRT	163.2	138.4 @14:56:37 @ 8.0 m	212.4 @15:48:37 @ 60.0 m	17.4	DEG F
186	FUEL TANK SKIN FRT	175.2	129.9 @14:48:37 @ 0.0 m	211.6 @15:50:37 @ 62.0 m	21.6	DEG F
187	FUEL PUMP FLANGE	166.6	134.0 @14:48:37 @ 0.0 m	201.1 @15:40:37 @ 52.0 m	17.6	DEG F
188	FUEL LINE AT SENDER	151.8	128.5 @14:48:37 @ 0.0 m	166.3 @16:54:37 @ 126.0 m	9.9	DEG F
189	FUEL LINE PLAS. CONN	173.9	126.6 @14:48:37 @ 0.0 m	205.3 @15:52:37 @ 64.0 m	21.4	DEG F
190	FUEL IN TANK	145.4	127.2 @14:48:37 @ 0.0 m	152.9 @16:30:37 @ 102.0 m	8.4	DEG F
191	PARK BRK CABLE @ MUF	165.8	-45.3 @15:54:37 @ 66.0 m	242.6 @15:40:37 @ 52.0 m	62.9	DEG F
192	AIR SPRING UP CAP RH	182.0	125.0 @14:48:37 @ 0.0 m	211.5 @15:54:37 @ 66.0 m	25.3	DEG F
193	AIR SPRING SLV RH RR	182.5	125.9 @14:48:37 @ 0.0 m	221.5 @15:50:37 @ 62.0 m	25.6	DEG F
194	AIR SPRING SOLE. RH	179.3	124.3 @14:48:37 @ 0.0 m	210.7 @16:08:37 @ 80.0 m	26.2	DEG F
195	AIR SPRING PRES LINE	179.7	119.1 @14:48:37 @ 0.0 m	223.8 @16:00:37 @ 72.0 m	28.2	DEG F
196	AIR SUSP HT SENS SKT	152.9	117.1 @14:48:37 @ 0.0 m	184.6 @15:54:37 @ 66.0 m	16.7	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3M
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
197	AIR SUSP HT SENS ELE	169.3	119.1 @14:48:37 @ 0.0 m	201.2 @16:00:37 @ 72.0 m	22.4	DEG F
198	ABS MODULE #3	135.7	101.5 @15:06:37 @ 18.0 m	175.0 @17:12:37 @ 144.0 m	29.8	DEG F
199	ABS MODULE #4	135.6	101.8 @15:06:37 @ 18.0 m	174.9 @17:12:37 @ 144.0 m	29.7	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838WST
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
65	WIRING @ ABS PUMP	193.0	153.9 @11:30:50 @ 0.0 m	221.7 @13:04:20 @ 93.5 m	20.7	DEG F
66	WIRING@LH VLV CVR RR	184.9	148.1 @11:30:50 @ 0.0 m	208.5 @13:12:20 @ 101.5 m	19.5	DEG F
67	STARTER CABLE @MAN	196.8	136.6 @11:30:50 @ 0.0 m	221.3 @13:04:20 @ 93.5 m	24.4	DEG F
68	STARTER CABLE @HEAD	198.8	151.3 @11:30:50 @ 0.0 m	215.5 @13:20:20 @ 109.5 m	17.5	DEG F
69	STARTER CABLE @START	235.0	183.3 @11:30:50 @ 0.0 m	270.7 @12:32:20 @ 61.5 m	24.1	DEG F
70	STARTER MAGNET	228.9	169.8 @11:30:50 @ 0.0 m	248.1 @13:04:20 @ 93.5 m	22.2	DEG F
72	BRK MASTER CYL	184.2	126.4 @11:30:50 @ 0.0 m	207.1 @13:14:20 @ 103.5 m	23.5	DEG F
73	BRK VAC BOOSTER	193.4	141.9 @11:30:50 @ 0.0 m	213.4 @13:10:20 @ 99.5 m	20.3	DEG F
74	POWER DIST BOX AMB I	183.2	110.6 @11:46:50 @ 16.0 m	217.9 @13:02:20 @ 91.5 m	30.6	DEG F
75	AIR CLEANER CASE	180.3	129.5 @11:30:50 @ 0.0 m	213.4 @13:04:20 @ 93.5 m	25.6	DEG F
76	AIR CLEANER INLET	161.5	100.6 @11:46:50 @ 16.0 m	202.2 @13:10:20 @ 99.5 m	35.3	DEG F
77	A/C-RESONATOR HOSE	178.4	113.5 @11:46:50 @ 16.0 m	214.0 @13:04:20 @ 93.5 m	31.1	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : w838wst
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
78	AIR INTAKE RESONATOR	193.6	156.3 @11:30:50 @ 0.0 m	222.4 @12:52:20 @ 81.5 m	19.6	DEG F
79	AIR INTAKE RESONATOR	181.5	140.6 @11:30:50 @ 0.0 m	214.9 @13:04:20 @ 93.5 m	25.6	DEG F
80	CARBON CANNISTER	145.8	100.0 @11:42:50 @ 12.0 m	164.4 @13:34:20 @ 123.5 m	21.1	DEG F
81	HEATER/AC BLOWER MTR	170.4	134.2 @11:30:50 @ 0.0 m	193.6 @13:16:20 @ 105.5 m	17.1	DEG F
82	SUSP BSHG FRT UP LH	201.0	154.0 @11:30:50 @ 0.0 m	223.3 @13:10:20 @ 99.5 m	19.8	DEG F
83	SUSP BSHG FRT UP RH	192.1	141.1 @11:30:50 @ 0.0 m	208.5 @13:10:20 @ 99.5 m	19.6	DEG F
84	VALVE COVER LH	237.5	196.6 @11:30:50 @ 0.0 m	264.2 @12:36:20 @ 65.5 m	18.2	DEG F
85	VALVE COVER RH	234.7	195.6 @11:30:50 @ 0.0 m	251.9 @12:02:20 @ 31.5 m	16.3	DEG F
86	STEERING FLEX COUPL.	201.9	163.7 @11:30:50 @ 0.0 m	229.4 @13:10:20 @ 99.5 m	18.7	DEG F
87	POWER STEERING PUMP	221.3	182.8 @11:30:50 @ 0.0 m	244.7 @13:10:20 @ 99.5 m	16.1	DEG F
88	POWER STEERING HOSE	211.0	169.4 @11:30:50 @ 0.0 m	238.6 @13:10:20 @ 99.5 m	19.4	DEG F
89	AIR SUSP CMPRSS AIR	166.1	110.5 @11:30:50 @ 0.0 m	197.2 @13:10:20 @ 99.5 m	26.4	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838WST
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
91	SPEED CNTRL SERVO	175.8	110.9 @11:30:50 @ 0.0 m	206.6 @13:10:20 @ 99.5 m	30.8	DEG F
92	A/C DISCHARGE AIR	83.9	55.1 @11:30:50 @ 0.0 m	137.2 @14:00:20 @ 149.5 m	28.8	DEG F
93	TOEBD TOP LH	230.8	153.7 @11:30:50 @ 0.0 m	269.9 @12:38:20 @ 67.5 m	36.4	DEG F
94	TOEBD TOP RH	194.2	147.3 @11:30:50 @ 0.0 m	216.9 @12:26:20 @ 55.5 m	20.1	DEG F
95	TOEBOARD BTM LH	222.7	150.0 @11:30:50 @ 0.0 m	263.6 @12:38:20 @ 67.5 m	34.7	DEG F
96	TOEBOARD BTM RH	198.6	140.6 @11:30:50 @ 0.0 m	233.4 @12:34:20 @ 63.5 m	26.7	DEG F
97	FLR OVER CAT LH	218.4	150.8 @14:00:20 @ 149.5 m	277.6 @12:36:20 @ 65.5 m	38.3	DEG F
98	FLR OVER CAT RH	201.9	151.0 @11:30:50 @ 0.0 m	237.8 @12:34:20 @ 63.5 m	24.8	DEG F
99	FLR OVER CAT OUT LH	225.8	143.0 @14:00:20 @ 149.5 m	297.4 @12:34:20 @ 63.5 m	42.2	DEG F
100	FLR OVER CAT OUT RH	205.0	158.1 @14:00:20 @ 149.5 m	237.4 @12:32:20 @ 61.5 m	23.7	DEG F
101	FLR 4" RR UBC LH	206.5	136.2 @14:00:20 @ 149.5 m	239.5 @12:46:20 @ 75.5 m	34.1	DEG F
102	FLR 4" RR UBC RH	199.7	154.3 @14:00:20 @ 149.5 m	234.7 @12:32:20 @ 61.5 m	23.1	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838WST
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
104	FLR OVER MUFF INLET	184.4	131.3 @14:00:20 @ 149.5 m	243.1 @12:32:20 @ 61.5 m	34.4	DEG F
106	FLR OVER MUFF FRT	231.0	138.5 @14:00:20 @ 149.5 m	332.9 @12:32:20 @ 61.5 m	58.7	DEG F
108	FLR OVER MUFF RR	203.8	144.0 @14:00:20 @ 149.5 m	266.0 @12:34:20 @ 63.5 m	38.6	DEG F
109	FLR IN KICKUP	159.1	121.0 @11:30:50 @ 0.0 m	189.1 @12:36:20 @ 65.5 m	17.5	DEG F
110	FLR IN TRUNK	147.9	121.3 @11:30:50 @ 0.0 m	176.3 @12:34:20 @ 63.5 m	13.9	DEG F
118	S.BELT TAB RR INB LH	138.0	112.4 @11:30:50 @ 0.0 m	151.2 @12:46:20 @ 75.5 m	11.7	DEG F
119	S.TRK FRT INB RH FRT	161.9	126.4 @11:30:50 @ 0.0 m	186.0 @12:36:20 @ 65.5 m	16.8	DEG F
120	S.TRK FRT INB RH RR	140.8	111.7 @11:30:50 @ 0.0 m	158.2 @12:28:20 @ 57.5 m	12.1	DEG F
121	S.TRK FRT INB LH FRT	156.6	122.7 @11:30:50 @ 0.0 m	178.7 @12:36:20 @ 65.5 m	16.1	DEG F
122	S.TRK FRT INB LH RR	127.9	109.4 @11:30:50 @ 0.0 m	136.6 @13:32:20 @ 121.5 m	7.1	DEG F
123	HEGO TIP LH	1119.3	233.4 @14:00:20 @ 149.5 m	1551.5 @11:58:20 @ 27.5 m	421.2	DEG F
124	HEGO TIP RH	1094.9	220.5 @14:00:20 @ 149.5 m	1535.9 @11:58:20 @ 27.5 m	428.6	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : w838wst
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
125	HEGO GROMMET LH	266.8	175.8 @14:00:20 @ 149.5 m	392.0 @12:36:20 @ 65.5 m	55.7	DEG F
126	HEGO GROMMET RH	264.6	163.8 @11:30:50 @ 0.0 m	396.7 @12:34:20 @ 63.5 m	57.5	DEG F
127	HEGO HEX LH	593.4	225.4 @14:00:20 @ 149.5 m	826.5 @11:58:20 @ 27.5 m	173.7	DEG F
128	HEGO HEX RH	601.4	216.0 @14:00:20 @ 149.5 m	901.3 @11:58:20 @ 27.5 m	212.2	DEG F
129	HEGO CONNECTOR LH	189.2	145.8 @11:30:50 @ 0.0 m	212.3 @13:10:20 @ 99.5 m	20.5	DEG F
130	HEGO CONNECTOR RH	181.2	145.3 @11:30:50 @ 0.0 m	195.1 @13:16:20 @ 105.5 m	14.2	DEG F
131	EXHAUST MANIFOLD LH	692.8	222.7 @14:00:20 @ 149.5 m	1072.6 @11:58:20 @ 27.5 m	271.8	DEG F
132	EXHAUST MANIFOLD RH	680.3	214.6 @14:00:20 @ 149.5 m	1106.6 @11:58:20 @ 27.5 m	306.3	DEG F
133	LOC GAS LH	1076.1	388.8 @14:00:20 @ 149.5 m	1536.1 @11:58:20 @ 27.5 m	354.4	DEG F
134	LOC GAS RH	1013.5	349.8 @14:00:20 @ 149.5 m	1486.2 @11:58:20 @ 27.5 m	361.2	DEG F
135	LOC SKIN OUTBD LH	630.5	263.1 @14:00:20 @ 149.5 m	857.9 @11:58:20 @ 27.5 m	162.2	DEG F
136	LOC SKIN OUTBD RH	578.3	251.6 @14:00:20 @ 149.5 m	776.2 @12:32:20 @ 61.5 m	142.8	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838WST
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
137	UBC GAS LH	975.8	376.9 @14:00:20 @ 149.5 m	1446.7 @11:58:20 @ 27.5 m	351.4	DEG F
138	UBC GAS RH	970.3	368.9 @14:00:20 @ 149.5 m	1435.3 @11:58:20 @ 27.5 m	346.8	DEG F
139	UBC SKIN BTM LH	607.1	235.9 @14:00:20 @ 149.5 m	882.3 @11:58:20 @ 27.5 m	191.9	DEG F
140	UBC SKIN BTM RH	580.6	231.0 @14:00:20 @ 149.5 m	815.8 @11:58:20 @ 27.5 m	170.4	DEG F
141	EXH PIPE 1ST BEND LH	584.6	188.8 @14:00:20 @ 149.5 m	877.2 @11:58:20 @ 27.5 m	202.5	DEG F
142	EXH PIPE 1ST BEND RH	630.8	197.3 @14:00:20 @ 149.5 m	953.7 @11:58:20 @ 27.5 m	227.7	DEG F
143	EXH PIPE 6"RR UBC LH	521.9	146.5 @14:00:20 @ 149.5 m	831.3 @11:58:20 @ 27.5 m	212.8	DEG F
144	EXH PIPE 6"RR UBC RH	549.3	153.0 @14:00:20 @ 149.5 m	864.8 @11:58:20 @ 27.5 m	223.6	DEG F
145	EXH PIPE AT Y-JT	467.4	126.2 @14:00:20 @ 149.5 m	749.4 @11:58:20 @ 27.5 m	191.2	DEG F
146	EXH PIPE 6"FWD MUFF	462.6	124.6 @14:00:20 @ 149.5 m	800.5 @11:58:20 @ 27.5 m	219.1	DEG F
147	MUFFLER BTM CENTER	429.4	129.0 @14:00:20 @ 149.5 m	758.7 @11:58:20 @ 27.5 m	204.7	DEG F
148	EXH TOP OF KICKUP	432.1	142.8 @14:00:20 @ 149.5 m	770.8 @11:58:20 @ 27.5 m	216.1	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838WST
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
149	EXH 12" FWD OUTLET	354.5	125.4 @14:00:20 @ 149.5 m	647.6 @11:58:20 @ 27.5 m	177.5	DEG F
150	STARTER GEAR	229.7	161.0 @11:30:50 @ 0.0 m	250.6 @12:42:20 @ 71.5 m	25.2	DEG F
151	ABS MODULE #1	136.0	105.4 @11:50:20 @ 19.5 m	170.6 @13:56:20 @ 145.5 m	26.8	DEG F
152	RR EXH. HANGER	147.7	117.7 @11:30:50 @ 0.0 m	168.5 @12:40:20 @ 69.5 m	14.0	DEG F
153	FRT U-JT AMB	180.5	114.0 @14:00:20 @ 149.5 m	247.0 @12:34:20 @ 63.5 m	35.7	DEG F
154	ENG MNT LH	221.3	149.0 @11:30:50 @ 0.0 m	250.3 @12:56:20 @ 85.5 m	29.1	DEG F
155	ENG MNT RH	204.2	161.1 @11:30:50 @ 0.0 m	235.4 @13:02:20 @ 91.5 m	24.3	DEG F
156	ENG MNT RR	188.1	129.4 @11:30:50 @ 0.0 m	220.4 @12:52:20 @ 81.5 m	28.7	DEG F
157	TRANS PAN GASKET LH	209.1	127.7 @11:30:50 @ 0.0 m	253.9 @12:44:20 @ 73.5 m	36.4	DEG F
158	TRANS PAN GASKET RH	215.1	130.9 @11:30:50 @ 0.0 m	259.3 @12:42:20 @ 71.5 m	35.9	DEG F
159	SPEED SENSOR	204.0	149.4 @14:00:20 @ 149.5 m	234.8 @12:50:20 @ 79.5 m	29.5	DEG F
160	STARTER SOENOID CAP	231.1	181.5 @11:30:50 @ 0.0 m	258.4 @12:36:20 @ 65.5 m	24.4	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : w838wst
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
161	TRANS EXTEN HSG SEAL	219.8	173.1 @14:00:20 @ 149.5 m	246.5 @12:34:20 @ 63.5 m	22.8	DEG F
162	TRAN ELEC CONN LH RR	201.1	143.8 @11:30:50 @ 0.0 m	241.8 @12:54:20 @ 83.5 m	33.8	DEG F
163	TRANS BELLHSG LH	219.8	153.7 @11:30:50 @ 0.0 m	253.8 @12:44:20 @ 73.5 m	28.8	DEG F
164	TRANS BELLHSG RH	220.1	148.4 @11:30:50 @ 0.0 m	256.9 @12:42:20 @ 71.5 m	30.2	DEG F
165	TRAN EXT HSG GASKET	222.8	164.7 @11:30:50 @ 0.0 m	249.5 @12:34:20 @ 63.5 m	24.5	DEG F
166	TRAN EXT HSG BUSHING	223.1	177.9 @14:00:20 @ 149.5 m	248.3 @12:40:20 @ 69.5 m	22.2	DEG F
167	TRAN FILL TUBE SKIN	225.6	155.2 @11:30:50 @ 0.0 m	262.9 @12:42:20 @ 71.5 m	28.6	DEG F
168	TRAN FILL TUBE SEAL	218.8	151.7 @11:30:50 @ 0.0 m	262.1 @12:38:20 @ 67.5 m	31.4	DEG F
169	TRAN CASE @MAN LEV	222.6	152.7 @11:30:50 @ 0.0 m	256.8 @12:44:20 @ 73.5 m	28.8	DEG F
170	ABS SENS WIRE RR RH	174.0	138.4 @11:30:50 @ 0.0 m	212.7 @12:26:20 @ 55.5 m	23.8	DEG F
171	TRAN MLPS	221.9	165.4 @14:00:20 @ 149.5 m	248.1 @13:16:20 @ 105.5 m	28.8	DEG F
172	TRAN BULKHEAD CONN	180.4	128.6 @11:30:50 @ 0.0 m	208.9 @13:12:20 @ 101.5 m	24.0	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838WST
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
173	ABS MODULE #2	136.8	105.0 @11:50:20 @ 19.5 m	172.0 @13:54:20 @ 143.5 m	27.5	DEG F
174	SHIFT CABLE @ EXHMAN	230.9	149.8 @13:58:20 @ 147.5 m	287.9 @12:52:20 @ 81.5 m	49.2	DEG F
175	SHIFT CABLE @ LOC	212.7	141.5 @14:00:20 @ 149.5 m	273.9 @12:38:20 @ 67.5 m	48.0	DEG F
176	SHIFT CABLE @ UBC	203.4	141.2 @11:30:50 @ 0.0 m	246.8 @12:54:20 @ 83.5 m	35.0	DEG F
177	SHIFT CABLE SLEEVE	215.0	130.7 @14:00:20 @ 149.5 m	280.3 @12:34:20 @ 63.5 m	41.0	DEG F
178	SHIFT CABL UNDER SLV	197.2	128.2 @14:00:20 @ 149.5 m	238.0 @12:36:20 @ 65.5 m	33.1	DEG F
179	SHIFT CABL ADJ @TRAN	192.8	135.8 @14:00:20 @ 149.5 m	232.7 @12:40:20 @ 69.5 m	33.7	DEG F
180	FUEL FILTER	131.5	107.2 @11:30:50 @ 0.0 m	141.5 @13:10:20 @ 99.5 m	10.5	DEG F
181	FUEL LINE AT FILTER	129.3	104.5 @11:30:50 @ 0.0 m	140.5 @13:10:20 @ 99.5 m	10.9	DEG F
182	FUEL RET LINE @ TANK	140.3	112.0 @11:30:50 @ 0.0 m	149.9 @13:12:20 @ 101.5 m	11.3	DEG F
183	FUEL SUP LINE @ TANK	136.5	103.8 @11:30:50 @ 0.0 m	147.9 @13:40:20 @ 129.5 m	12.6	DEG F
184	FUEL TANK SKIN FRT	134.2	105.8 @11:30:50 @ 0.0 m	148.9 @12:28:20 @ 57.5 m	10.1	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838WST
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
185	FUEL TANK SKIN FRT	134.7	105.7 @11:30:50 @ 0.0 m	144.6 @12:24:20 @ 53.5 m	10.2	DEG F
186	FUEL TANK SKIN FRT	144.6	100.8 @11:30:50 @ 0.0 m	167.1 @12:32:20 @ 61.5 m	17.1	DEG F
187	FUEL PUMP FLANGE	133.7	105.1 @11:30:50 @ 0.0 m	141.4 @13:20:20 @ 109.5 m	10.5	DEG F
188	FUEL LINE AT SENDER	134.9	103.9 @11:30:50 @ 0.0 m	144.7 @13:34:20 @ 123.5 m	11.6	DEG F
189	FUEL LINE PLAS. CONN	156.2	124.7 @11:30:50 @ 0.0 m	176.7 @12:34:20 @ 63.5 m	14.6	DEG F
190	FUEL IN TANK	129.6	96.4 @11:30:50 @ 0.0 m	140.7 @13:30:20 @ 119.5 m	12.9	DEG F
191	PARK BRK CABLE @ MUF	158.9	39.8 @12:42:20 @ 71.5 m	206.3 @12:26:20 @ 55.5 m	35.6	DEG F
192	AIR SPRING UP CAP RH	162.5	115.1 @11:30:50 @ 0.0 m	183.1 @12:38:20 @ 67.5 m	19.7	DEG F
193	AIR SPRING SLV RH-RR	161.3	124.7 @11:30:50 @ 0.0 m	185.4 @12:32:20 @ 61.5 m	17.1	DEG F
194	AIR SPRING SOLE. RH	160.9	115.2 @11:30:50 @ 0.0 m	183.0 @12:50:20 @ 79.5 m	20.4	DEG F
195	AIR SPRING PRES LINE	162.1	117.7 @11:30:50 @ 0.0 m	193.7 @12:42:20 @ 71.5 m	21.1	DEG F
196	AIR SUSP RT SENS SKT	144.9	118.0 @11:30:50 @ 0.0 m	163.5 @12:36:20 @ 65.5 m	12.5	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838WST
 TEST DESC: trailer tow(CI)
 TEST DATE: 22 FEB 00
 DATAFILE : W838WST

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
197	AIR SUSP HT SENS ELE	156.3	119.8 @11:30:50 @ 0.0 m	180.1 @12:38:20 @ 67.5 m	16.9	DEG F
198	ABS MODULE #3	134.4	101.6 @11:50:20 @ 19.5 m	172.4 @13:54:20 @ 143.5 m	28.6	DEG F
199	ABS MODULE #4	134.2	101.9 @11:50:20 @ 19.5 m	172.5 @13:56:20 @ 145.5 m	28.4	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID :
 TEST ID : W838W3M
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
11	AMBIENT	125.1	99.6 @15:06:37 @ 18.0 m	152.1 @17:06:37 @ 138.0 m	21.5	DEG F
12	TOP WATER	219.7	201.7 @16:50:37 @ 122.0 m	247.7 @16:00:37 @ 72.0 m	12.2	DEG F
13	ENGINE OIL	222.1	175.8 @17:22:37 @ 154.0 m	251.4 @16:08:37 @ 80.0 m	21.8	DEG F
14	TRANSMISSION FLUID	236.5	192.1 @14:48:37 @ 0.0 m	269.6 @15:40:37 @ 52.0 m	22.4	DEG F
15	POWER STEERING FLUID	220.6	177.6 @14:48:37 @ 0.0 m	242.3 @16:10:37 @ 82.0 m	14.3	DEG F
16	UHOOD AMB X LF/RR	185.8	138.5 @14:48:37 @ 0.0 m	220.2 @16:00:37 @ 72.0 m	21.3	DEG F
18	ACT CONNECTOR	177.3	114.2 @14:50:37 @ 2.0 m	211.7 @16:08:37 @ 80.0 m	28.8	DEG F
19	ECT CONNECTOR	191.6	152.9 @14:48:37 @ 0.0 m	224.8 @16:06:37 @ 78.0 m	17.4	DEG F
20	TP SENSOR	179.4	142.3 @14:48:37 @ 0.0 m	201.3 @16:16:37 @ 88.0 m	17.8	DEG F
21	CRANK POSITION SEN.	192.7	150.6 @14:48:37 @ 0.0 m	226.1 @16:06:37 @ 78.0 m	17.2	DEG F
22	CAM POSITION SEN.	191.5	148.7 @14:48:37 @ 0.0 m	224.9 @16:06:37 @ 78.0 m	18.5	DEG F
23	EDIS MODULE (1)	173.6	119.7 @15:06:37 @ 18.0 m	207.7 @16:24:37 @ 96.0 m	30.7	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3M
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
24	EDIS MODULE (2)	170.9	117.3 @15:06:37 @ 18.0 m	203.7 @16:26:37 @ 98.0 m	30.6	DEG F
25	LH IGNITION COIL AMB	185.5	153.5 @14:48:37 @ 0.0 m	220.3 @16:00:37 @ 72.0 m	17.1	DEG F
26	RH IGNITION COIL AMB	183.6	150.6 @14:48:37 @ 0.0 m	218.6 @16:06:37 @ 78.0 m	17.1	DEG F
27	OIL PRESSURE SENDER	191.9	142.6 @14:48:37 @ 0.0 m	232.6 @16:08:37 @ 80.0 m	23.6	DEG F
28	H2O TEMP SENDER	211.3	187.9 @14:48:37 @ 0.0 m	241.4 @16:00:37 @ 72.0 m	12.6	DEG F
29	MAP SENSOR	179.9	109.0 @14:50:37 @ 2.0 m	215.9 @16:08:37 @ 80.0 m	29.8	DEG F
30	EEC POWER RELAY	201.4	138.7 @15:04:37 @ 16.0 m	237.8 @16:42:37 @ 114.0 m	32.8	DEG F
31	FUEL PUMP RELAY	209.8	155.5 @15:04:37 @ 16.0 m	247.5 @16:44:37 @ 116.0 m	30.6	DEG F
32	ISC MOTOR	204.5	161.6 @14:48:37 @ 0.0 m	231.6 @16:08:37 @ 80.0 m	16.2	DEG F
33	EVR SOLENOID	185.2	143.1 @14:48:37 @ 0.0 m	209.5 @16:08:37 @ 80.0 m	16.2	DEG F
34	EVR REGULATOR	181.1	137.7 @14:48:37 @ 0.0 m	204.6 @16:16:37 @ 88.0 m	18.9	DEG F
35	VAC HOSE FORE EVR	192.8	164.0 @14:48:37 @ 0.0 m	211.5 @16:08:37 @ 80.0 m	12.3	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3M
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
36	VAC HOSE APT OF EVR	192.0	165.3 @14:48:37 @ 0.0 m	208.9 @16:14:37 @ 86.0 m	11.7	DEG F
38	SPEED CONTROL SERVO	176.6	122.4 @15:04:37 @ 16.0 m	202.1 @16:34:37 @ 106.0 m	27.3	DEG F
39	THROTTLE BODY @TPS	172.9	126.1 @14:48:37 @ 0.0 m	203.4 @16:12:37 @ 84.0 m	25.9	DEG F
40	ACCELERATOR CABLE	188.4	148.9 @14:48:37 @ 0.0 m	223.1 @16:06:37 @ 78.0 m	17.3	DEG F
41	SPEED CONTROL CABLE	191.9	155.5 @14:48:37 @ 0.0 m	224.6 @16:06:37 @ 78.0 m	16.3	DEG F
42	DAYLIGHT RUN MODULE	143.8	98.2 @15:06:37 @ 18.0 m	183.0 @16:58:37 @ 130.0 m	37.0	DEG F
43	PURGE CONTROL SOLE.	177.3	117.2 @14:48:37 @ 0.0 m	204.2 @16:08:37 @ 80.0 m	23.6	DEG F
44	ALTERNATOR INLET AIR	183.9	141.0 @14:48:37 @ 0.0 m	210.2 @16:08:37 @ 80.0 m	17.0	DEG F
48	WIRING @ MLPS	203.9	142.3 @14:48:37 @ 0.0 m	249.2 @16:06:37 @ 78.0 m	35.0	DEG F
49	WIRING @ VSS	193.6	133.9 @17:22:37 @ 154.0 m	242.9 @15:56:37 @ 68.0 m	36.7	DEG F
50	WIRING@NEUTRL SWITCH	203.2	148.7 @14:48:37 @ 0.0 m	246.8 @16:08:37 @ 80.0 m	32.4	DEG F
51	A/C EVAP CASE BTM	187.2	133.4 @14:48:37 @ 0.0 m	246.8 @15:52:37 @ 64.0 m	25.2	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3M
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
52	A/C EVAP CASE BTM	125.2	92.0 @15:06:37 @ 18.0 m	168.3 @16:54:37 @ 126.0 m	27.0	DEG F
53	A/C EVAP CASE BTM	143.3	90.4 @14:48:37 @ 0.0 m	211.9 @16:52:37 @ 124.0 m	36.3	DEG F
54	A/C COMPRESS MANIFOLD	218.1	186.3 @17:22:37 @ 154.0 m	245.4 @15:28:37 @ 40.0 m	18.3	DEG F
55	A/C COMPRESS DISC TUBE	221.2	173.8 @17:22:37 @ 154.0 m	257.2 @15:28:37 @ 40.0 m	28.3	DEG F
56	FUEL PRESSURE REG	164.6	137.6 @14:48:37 @ 0.0 m	193.2 @17:22:37 @ 154.0 m	14.3	DEG F
57	FUEL RAIL SUPPLY	159.7	129.2 @14:48:37 @ 0.0 m	191.3 @17:14:37 @ 146.0 m	17.5	DEG F
58	FUEL RAIL RETURN	160.1	130.0 @14:48:37 @ 0.0 m	191.5 @17:14:37 @ 146.0 m	17.2	DEG F
60	WIRING NR RH COIL	184.0	146.0 @14:48:37 @ 0.0 m	218.8 @16:06:37 @ 78.0 m	17.5	DEG F
61	ACT WIRING@CNTRL ARM	191.0	172.5 @15:10:37 @ 22.0 m	231.3 @16:06:37 @ 78.0 m	15.2	DEG F
62	BLOWER RESIST HARNES	188.2	148.0 @14:48:37 @ 0.0 m	218.2 @16:06:37 @ 78.0 m	15.8	DEG F
63	MAPS WIRING NR PFE	180.2	139.2 @14:48:37 @ 0.0 m	206.8 @16:08:37 @ 80.0 m	18.5	DEG F
64	WIRING NR THERM HSG	189.5	148.5 @14:48:37 @ 0.0 m	223.0 @16:06:37 @ 78.0 m	18.7	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3M
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
65	WIRING @ ABS PUMP	188.8	147.3 @14:48:37 @ 0.0 m	223.0 @16:00:37 @ 72.0 m	20.0	DEG F
66	WIRING@LH VLV CVR RR	185.4	144.7 @14:48:37 @ 0.0 m	206.3 @16:12:37 @ 84.0 m	19.4	DEG F
67	STARTER CABLE @MAN	188.7	129.4 @14:48:37 @ 0.0 m	216.2 @16:08:37 @ 80.0 m	24.2	DEG F
68	STARTER CABLE @HEAD	193.9	140.7 @14:48:37 @ 0.0 m	215.7 @16:18:37 @ 90.0 m	19.3	DEG F
69	STARTER CABLE @START	218.8	160.1 @14:48:37 @ 0.0 m	241.1 @15:58:37 @ 70.0 m	20.7	DEG F
70	STARTER MAGNET	215.3	164.6 @14:48:37 @ 0.0 m	239.6 @16:14:37 @ 86.0 m	20.7	DEG F
72	BRK MASTER CYL	184.8	142.4 @14:48:37 @ 0.0 m	205.4 @16:56:37 @ 128.0 m	20.3	DEG F
73	BRK VAC BOOSTER	194.1	144.8 @14:48:37 @ 0.0 m	214.5 @16:52:37 @ 124.0 m	18.8	DEG F
74	POWER DIST BOX AMB I	179.0	110.4 @14:52:37 @ 4.0 m	217.9 @16:06:37 @ 78.0 m	28.6	DEG F
75	AIR CLEANER CASE	177.1	126.7 @14:48:37 @ 0.0 m	213.2 @16:08:37 @ 80.0 m	24.6	DEG F
76	AIR CLEANER INLET	159.4	100.4 @14:52:37 @ 4.0 m	199.1 @16:06:37 @ 78.0 m	34.4	DEG F
77	A/C-RESONATOR HOSE	175.4	113.0 @14:50:37 @ 2.0 m	213.1 @16:08:37 @ 80.0 m	29.8	DEG F

TABULAR DATA SUMMARY REPORT

VEH. ID : XXXXXXXXXX
 TEST ID : W838W3M
 TEST DESC: malfunction
 TEST DATE: 22 FEB 00
 DATAFILE : W838W3M

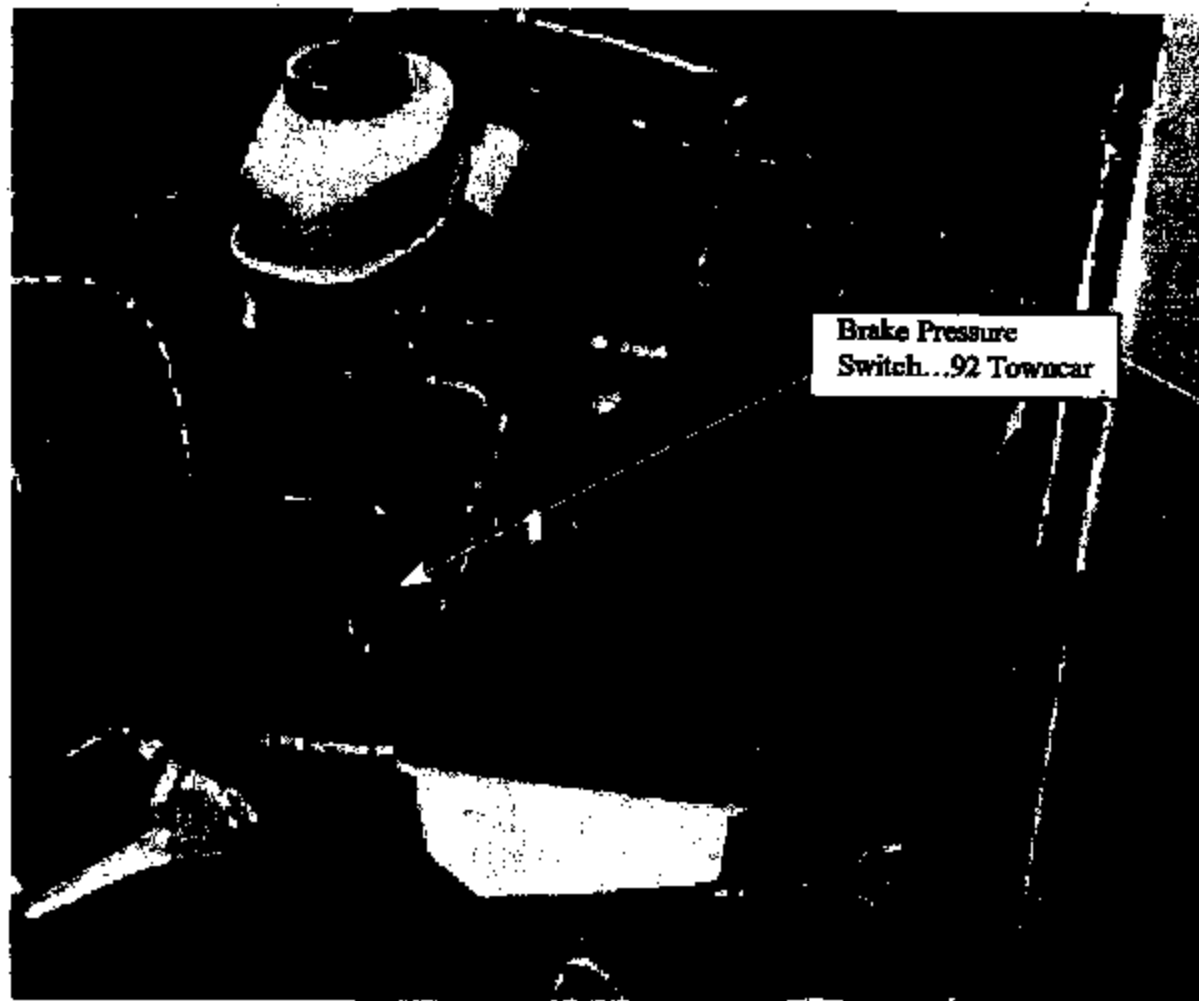
Ch #	Label	Average	Minimum	Maximum	Std.Dev.	Units
78	AIR INTAKE RESONATOR	187.7	145.5 @14:48:37 @ 0.0 m	222.7 @16:06:37 @ 78.0 m	18.6	DEG F
79	AIR INTAKE RESONATOR	178.7	132.5 @14:48:37 @ 0.0 m	212.7 @16:08:37 @ 80.0 m	24.0	DEG F
80	CARBON CANNISTER	146.3	99.6 @15:06:37 @ 18.0 m	165.5 @16:54:37 @ 126.0 m	21.7	DEG F
81	HEATER/AC BLOWER MTR	171.5	135.5 @14:48:37 @ 0.0 m	193.5 @16:16:37 @ 88.0 m	17.7	DEG F
82	SUSP BSHG FRT UP LH	198.4	147.4 @14:48:37 @ 0.0 m	220.5 @15:58:37 @ 70.0 m	19.3	DEG F
83	SUSP BSHG FRT UP RH	181.9	128.5 @14:48:37 @ 0.0 m	201.6 @16:52:37 @ 124.0 m	19.9	DEG F
84	VALVE COVER LH	232.1	181.1 @14:48:37 @ 0.0 m	262.6 @15:54:37 @ 66.0 m	19.8	DEG F
85	VALVE COVER RH	224.8	180.1 @14:48:37 @ 0.0 m	242.7 @15:18:37 @ 30.0 m	15.3	DEG F
86	STEERING FLEX COUPL.	196.9	158.2 @14:48:37 @ 0.0 m	224.9 @16:08:37 @ 80.0 m	17.4	DEG F
87	POWER STEERING PUMP	214.2	172.0 @14:48:37 @ 0.0 m	239.3 @16:08:37 @ 80.0 m	16.0	DEG F
88	POWER STEERING HOSE	205.3	160.6 @14:48:37 @ 0.0 m	236.3 @16:06:37 @ 78.0 m	18.7	DEG F
89	AIR SUSP CMPRSS AIR	165.9	118.3 @15:04:37 @ 16.0 m	191.7 @16:08:37 @ 80.0 m	22.5	DEG F

TA SUMMARY REPORT

:
 : W838W3M
 TEL ESC: malfunction
 TEF DATE: 22 FEB 00
 FILE : W838W3M

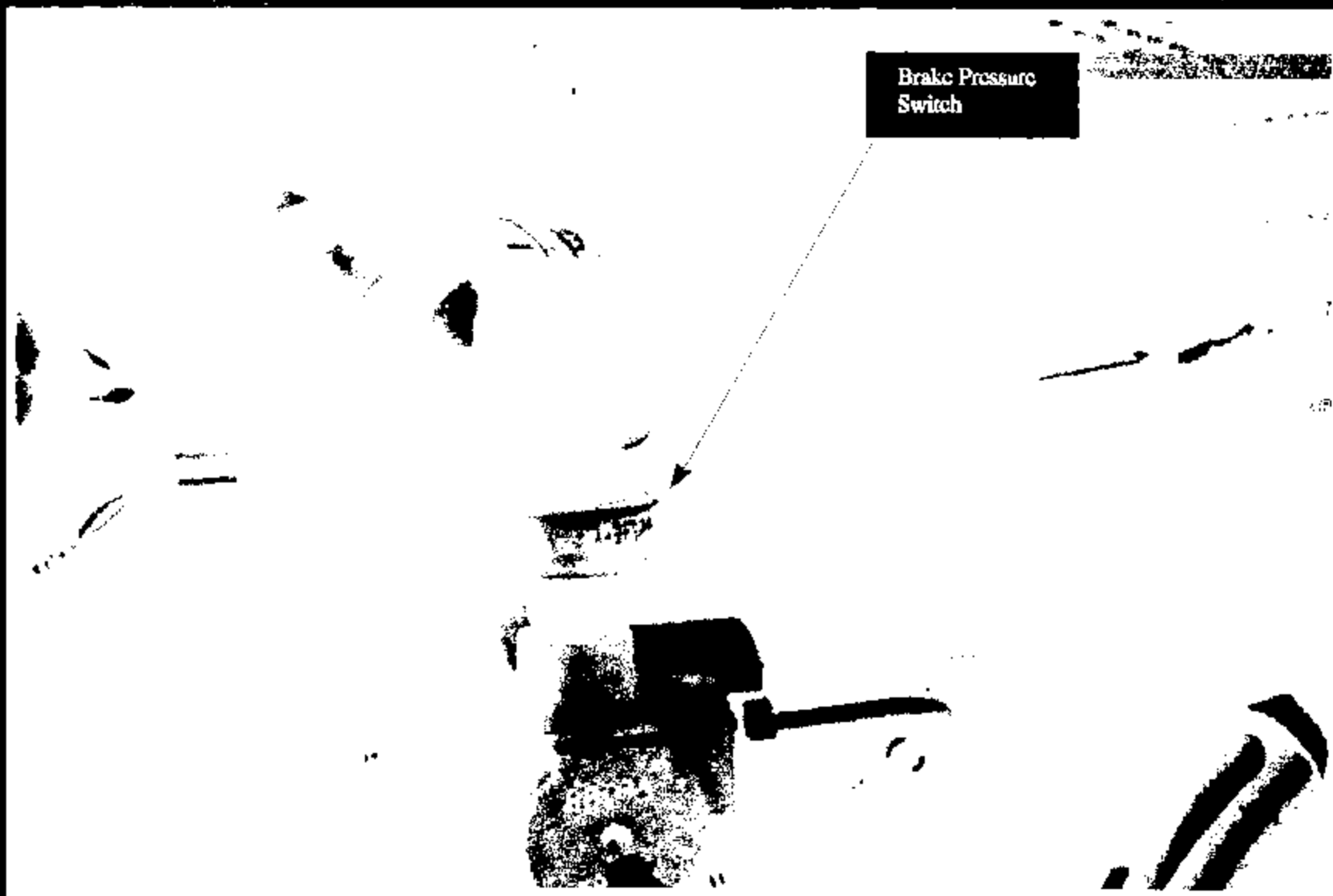
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91	SPEED CNTRL SERVO	175.9	118.8 @15:04:37 @ 16.0 m	200.8 @16:58:37 @ 130.0 m	27.6	DEG F
92	A/C DISCHARGE AIR	92.8	55.6 @15:10:37 @ 22.0 m	147.3 @17:22:37 @ 154.0 m	35.6	DEG F
93	TOEBD TOP LH	238.1	149.5 @14:48:37 @ 0.0 m	276.9 @15:56:37 @ 68.0 m	36.1	DEG F
94	TOEBD TOP RH	203.8	138.6 @14:48:37 @ 0.0 m	239.7 @16:54:37 @ 126.0 m	26.3	DEG F
95	TOEBOARD BTM LH	232.1	146.0 @14:48:37 @ 0.0 m	272.8 @16:52:37 @ 124.0 m	35.9	DEG F
96	TOEBOARD BTM RH	222.1	140.9 @14:48:37 @ 0.0 m	270.8 @15:54:37 @ 66.0 m	35.1	DEG F
97	FLR OVER CAT LH	223.8	149.4 @14:48:37 @ 0.0 m	278.6 @15:54:37 @ 66.0 m	38.1	DEG F
98	FLR OVER CAT RH	237.1	148.9 @14:48:37 @ 0.0 m	307.8 @15:52:37 @ 64.0 m	42.0	DEG F
99	FLR OVER CAT OUT LH	232.2	150.4 @17:22:37 @ 154.0 m	303.5 @15:52:37 @ 64.0 m	43.3	DEG F
100	FLR OVER CAT OUT RH	241.1	166.7 @17:22:37 @ 154.0 m	302.2 @15:50:37 @ 62.0 m	36.6	DEG F
101	FLR 4" RR UBC LH	207.9	142.2 @17:22:37 @ 154.0 m	250.3 @15:50:37 @ 62.0 m	32.8	DEG F
102	FLR 4" RR UBC RH	221.1	160.6 @14:48:37 @ 0.0 m	250.7 @15:50:37 @ 62.0 m	26.7	DEG F

1992 Towncar

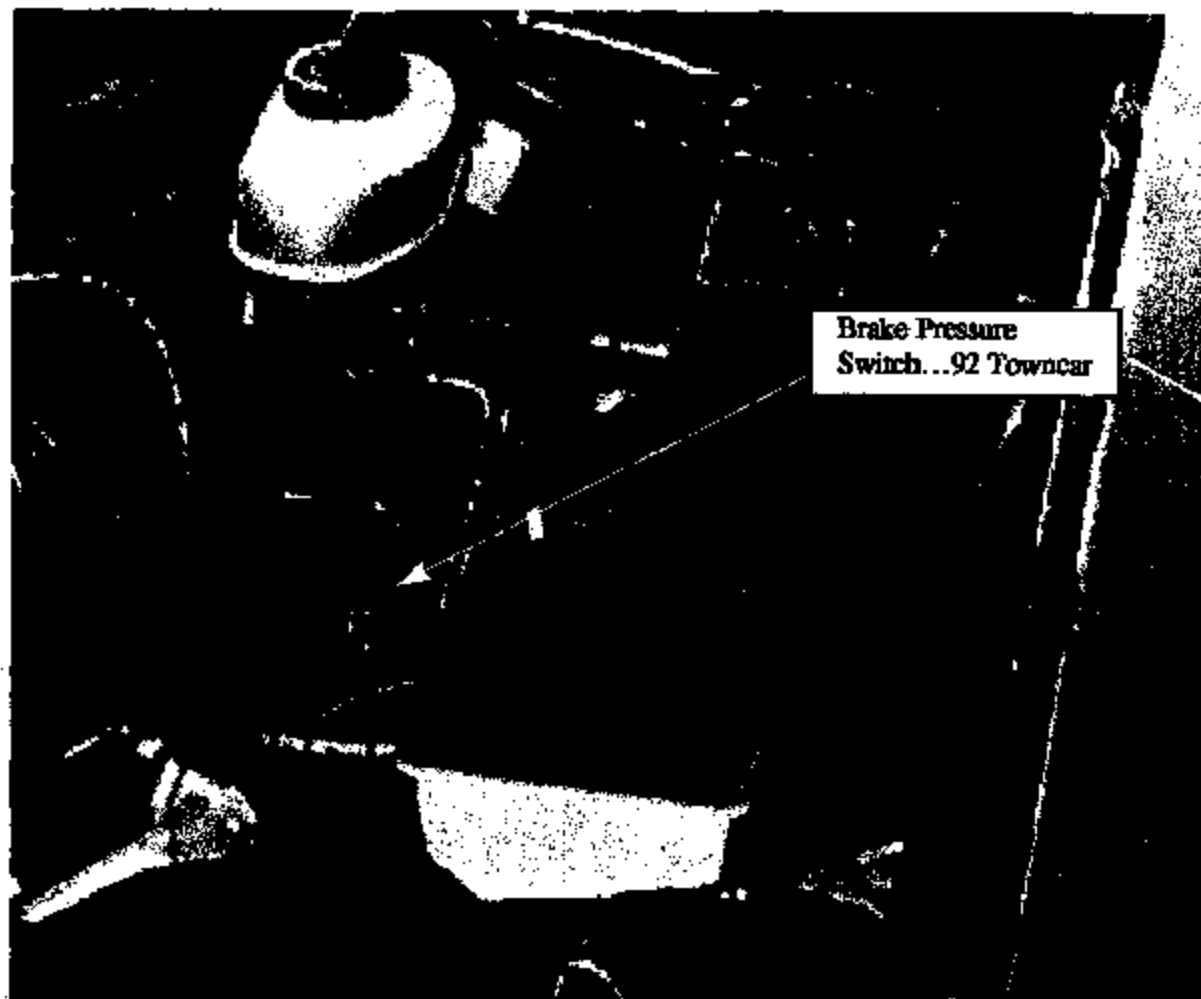


1998 Ranger

Brake Pressure
Switch

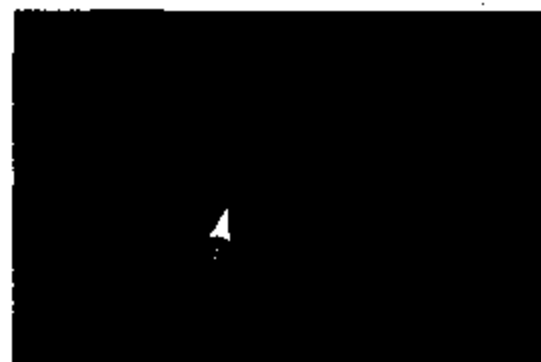
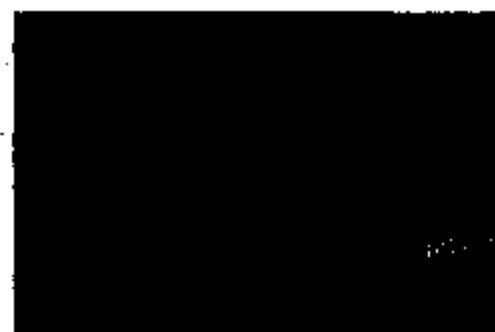
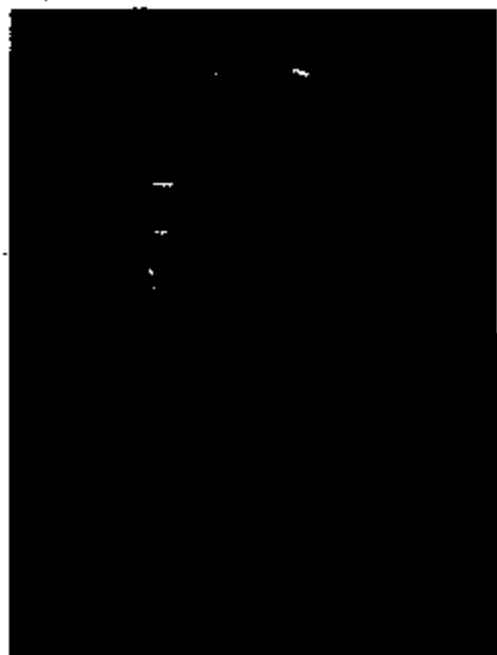


1992 Towncar



Brake Pressure Switch
1997 Mark VIII

3713 0673



1996 bronco

1994 E150

3718 8674

IRMCOAdvanced
Lubricant
Technology**FAX TRANSMISSION****Date:** December 21, 1999**FAX Number:** 313-390-4145**To:** Ford**Attention:** Steve Reimers**Message:** MSDS' for IRMCO FLUIDS® 819-000 and 185-000. Product Application Guide for 819-000.**From:** Gina Pryor x3007
Corporate Sales and Marketing**Total Pages:** 18

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3713 8675

2117 Greenleaf Street Evanston, Illinois 60202-1088 USA
847-864-0282 800-313-3903 Fax: 847-864-0312 www.irmco.com Affiliates in: Australia Canada Mexico United Kingdom

Dec. 21 1999 10:21PM PT

FROM : IRMCO Advanced Lubricant Tech. PHONE NO. : 847 864 0282



IRMCO FLUIDS®

Cleaners and Rust Preventatives

IRMCO Cleaner and Rust Preventative products are formulated to adjust with the use and installation of other IRMCO products. They are all compatible with the complete line of IRMCO products and recommended for proper system prep and die storage. Some of the products are also used as an alternative to mill oil for oil free steel coil and blank transportation.

IRMCO 850-CAT	Known for years as Clean-A-Tank. Used to clean out coolant and lubrication systems. Very effective at rushing out grease and oil residues for a proper switch from oil to non-oil. An average cleaner used at a dilution range of 1:1 to 20:1. Not to be used with aluminum components.
IRMCO 811-008	Alkaline parts cleaning solution.
IRMCO 857-DGR	Also known as Cleaner Degreaser. A water based solvent system for general shop and equipment cleaning. Great for floors.
IRMCO 118-00C	Heavy duty rust preventative with a film forming system. Maximum dilution 10:1.
IRMCO 818-000	Rust preventative with moderate cleaning capabilities. Very low dilution. Great for tool and die cleaning and storage. Maximum dilution 15:1.

3713 8876



2117 Greenleaf Street Evanston, Illinois 60202-1088 USA

FROM : IRMCO Advanced Lubricant Tech. PHONE NO. : 847 864 0012
 FAX : 847 864 0012
 Dec. 21 1999 10:21AM PZ



Material Safety Data Sheet

Date of Preparation: September 25, 1998
 Revision:

Product Name: IRMCO FLUIDS® 818-000
 Chemical Formula: Mixture
 CAS Number: None
 Other Designation: IRMCO 818-000 (formerly IRMCO 119)
 General Use: This product is a water-based corrosion inhibition and mild alkaline cleaner. There is no petroleum oil content in this product.

Manufacturer: IRMCO
 2117 Greenleaf Street
 Evanston, IL 60202-1088
 (847) 864-0255 or (800) 523-2833 phone
 (847) 864-0012 fax

Monday-Friday 8:00 AM-4:30 PM Central Standard Time (CST)

Ingredient Name	CAS Number		% WT	
triethanolamine (TEA)	102-71-6		12.0	

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
triethanolamine (TEA)			5 mg/m ³				

Emergency Overview

Avoid contact with eyes. Prolonged or repeated skin contact causes dryness and may cause irritation and mild dermatitis. Do not add nitrates or other nitrosating agents. Addition of nitrates may lead to formation of nitrosamines, a substance known to be carcinogenic in laboratory animals.

3713 8677

2117 Greenleaf Street Evanston, Illinois 60202-1088 USA

FROM: IRMCO Advanced Lubricant Tech. PHONE NO.: B47 864 0012
 FAX: 847-864-0012
 DEC 21 1999 10:22AM P3

Hazardous Materials Identification System (HMIS):

Health	1
Flammability	0
Reactivity	0
PPE	See Section 8

Potential Health Effects

Primary Entry Routes:

Eye contact, inhalation, ingestion, and skin contact.

Target Organs:

Central nervous system, eyes, respiratory system, and skin.

Acute Effects

- Eye:** Direct eye contact may cause irritation, redness, and swelling.
- Ingestion:** Ingestion may cause unpleasant burning sensation in mouth, throat, and stomach. Ingestion of large quantities may have toxic effects on the liver and kidneys.
- Inhalation:** Inhalation of excessive mists may cause irritation of the respiratory tract.
- Skin:** Prolonged or repeated skin contact causes dryness and may cause irritation and mild dermatitis.

Carcinogenicity:

International Agency for Research on Cancer (IARC), National Toxicology Program (NTP), and Occupational Safety and Health Administration (OSHA) do not list this product as a carcinogen.

Triethanolamine contains less than 1% diethanolamine. Preliminary findings from a chronic diethanolamine skin painting study include liver and kidney tumors in mice. No tumors were observed in rats. The significance of these findings will be evaluated when further information is released by NTP. A number of factors may have influenced the results and are being considered in their interpretation.

Medical Conditions Aggravated by Long-term Exposure:

Skin contact may aggravate existing allergies, dermatitis, or eczema.

Chronic Effects:

None known

Eye Contact:

Do not allow victim to rub or keep eyes tightly shut. Gently lift eyelids and flush with water immediately and continuously with flooding amount of water until transported to an emergency facility. Consult a physician immediately.

Ingestion:

Never give anything by mouth to an unconscious or convulsing person. Contact a poison control center. Unless the poison control center advises otherwise, have the conscious and alert person drink 1 to 2 glasses of water. Do not induce vomiting. After first aid, get appropriate in-plant, paramedic, or community medical support.

Inhalation:

Remove exposed person to fresh air. Monitor for respiratory distress. Consult a physician.

Skin Contact:

Quickly remove contaminated clothing. Immediately rinse exposed area with flooding amounts of water. Wash exposed area with soap and water. If irritation persists, consult a physician.

Note to Physicians:

None known

Special Precautions/Procedures:

None known

Flash Point:	Not determined
Flash Point Method:	Not determined
Burning Rate:	Not determined
Autoignition Temperature:	Not determined
Lower Explosion Limit (LEL):	Not determined
Upper Explosion Limit (UEL):	Not determined
Flammability Classification:	Not determined

National Fire Protection Association (NFPA) Ratings:**Extinguishing Media:**

Carbon dioxide, dry chemical, foam, or water fog or fine spray.

Unusual Fire or Explosion Hazards:

Container may rupture if subject to high temperature under pressure.

Hazardous Combustion Products:

During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to: nitrogen oxides, carbon monoxide, and carbon dioxide.

Fire-fighting Instructions:

Keep people away. Isolate fire and deny unnecessary entry. Burning liquids may be moved by flushing with water. Burning liquids may be extinguished by dilution with water.

Fire-fighting Equipment:

Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing including helmet, coat, pants, boots, and gloves. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

Spill/Leak Procedures:

Clear non-emergency personnel from the area. Contain material to prevent contamination of soil, surface water, and ground water. Absorb with non-combustible material and/or sand. Collect material in suitable and properly labeled open containers. Avoid material such as sawdust or cellulose.

Regulatory Requirements:

Follow applicable Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1910.120).

Handling Precautions:

In accordance with good industrial practice, handle with care and avoid unnecessary personal contact. Avoid contact with eyes and prolonged or repeated skin contact. Use only with adequate ventilation. For industrial use only. Do not mix with sodium nitrite or other nitrosating agents.

Storage Requirements:

Store in closed containers in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use and during transport. Do not store outside as product may freeze.

Regulatory Requirements:

None known. Follow applicable federal, state, and local laws and regulations.

Engineering Controls:

None

Ventilation:

Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA Permissible Exposure Limits (PELs) identified in Section 2. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Ventilation guidelines and techniques may be found in publications such as *Industrial Ventilation* (American Conference of Governmental Industrial Hygienists, 8500 Glenway Avenue, Building D-7, Cincinnati, OH 45211-4436).

Administrative Controls:

None

Respiratory Protection:

Atmospheric levels should be maintained below the exposure guidelines identified in Section 2. For most conditions, no respiratory protection should be needed. However, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.

Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134). If necessary, wear an MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear a self-contained breathing apparatus (SCBA). **Warning:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment:

Wear chemically protective apron, boots, and gauntlets or gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of or in conjunction with contact lenses.

Safety Stations:

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available to work area.

Contaminated Equipment:

Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes, and clean personal protective equipment.

Comments:

Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Appearance:	Clear, amber
Boiling Point:	Approximately 212°F (100°C)
Density:	8.4-8.2 lb/gal
Evaporation Rate:	Similar to water
Formula Weight:	Not applicable; mixture
Freezing/Melting Point:	Approximately 32°F (0°C)
pH:	8.5-10.5
Physical State:	Liquid
Refractive Index:	Not determined
Solubility in Water:	Completely soluble
Solubility in Other Solvents:	Not identified
Specific Gravity (H ₂ O = 1):	1.01-1.11
Surface Tension:	Not determined
Odor and Odor Threshold:	Bland
Vapor Density (air = 1):	Not determined
Vapor Pressure:	Not determined
Viscosity:	Not determined
% Volatile:	None

Stability:

Product is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization:

Hazardous polymerization will not occur.

Chemical Incompatibilities:

Incompatible with strong oxidizing agents and strong acids. Addition of these will render the product not usable for designed purpose.

Conditions to Avoid:

Avoid high heat unless proper ventilation is provided. Avoid mixing with nitrates or nitroesting agents. Addition of nitrates may lead to formation of nitrosamines, a substance known to be carcinogenic in laboratory animals.

Hazardous Decomposition Products:

Thermal oxidative decomposition of product can produce water vapor (H₂O), carbon monoxide (CO), carbon dioxide (CO₂), nitrogen oxides, and possibly other unidentified oxides.

Eye Effects:	No data
Skin Effects:	No data
Acute Inhalation Effects:	No data
Acute Oral Effects:	No data
Chronic Effects:	No data

3713 8681

Carcinogenicity: No data
Mutagenicity: No data
Teratogenicity: No data

Ecotoxicity: No data
Environmental Fate: No data
Environmental Degradation: No data
Soil Absorption/Mobility: No data

Disposal:
Contact licensed contractor for detailed recommendations. Follow applicable federal, state, and local laws and regulations.

Disposal Regulatory Requirements:
Not determined

Container Cleaning and Disposal:
Contact licensed contractor for detailed recommendations. Follow applicable federal, state, and local laws and regulations.

Department of Transportation (DOT) Data (49 CFR 172.101)

This product is not regulated by any means of transportation.

Shipping Name: Not applicable
Shipping Symbols: Not applicable
Hazard Class: Not applicable
ID Number: Not applicable
Packing Group: Not applicable
Label: Not applicable
Special Provisions (172.102): Not applicable

Federal Regulations

Clean Air Act (CAA):
This product contains no hazardous air pollutants (HAPs). This product does not contain and was not manufactured with a Class I or Class II ozone depleting substance (ODS).

Clean Water Act (CWA):
This product contains no chemicals listed under the U.S. Clean Water Act Priority OSHA.

Occupational Safety and Health Administration (OSHA) Hazard Communication Standard:
This product is a hazardous chemical as defined by the OSHA Hazard Communication Standard (29 CF 1910.1200). It is considered a health hazard due to its ability to act as an irritant and a sensitizer.

Resource Conservation and Recovery Act (RCRA)

3713 8882

IRMCOADVANCED
LUBRICANT
TECHNOLOGIES**MATERIAL SAFETY DATA SHEET**Date of Preparation: July 14, 1998
Revision:

Product Name: IRMCO FLUIDS 6185-000
 Chemical Formula: Mixture
 CAS Number: None
 Other Designation: IRMCO 185-000
 General Use: This product is a water-based, metalworking lubricant containing additives for corrosion inhibition, metalworking performance, film strength, and fluid preservation. There is no petroleum oil content in this product.

Manufacturer: IRMCO
 2117 Greenleaf Street
 Evanston, IL 60202-1088
 (847) 864-0255 or (800) 323-2933 phone
 (847) 864-0012 fax

Monday-Friday 8:30 AM-4:30 PM Central Standard Time (CST)

Ingredient Name	CAS Number		% wt	
Triethanolamine (TEA)	102-71-6		12.00	

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
Triethanolamine (TEA)			5 mg/m ³				

EMERGENCY OVERVIEW

Avoid contact with eyes. Prolonged or repeated skin contact causes dryness and may cause irritation and mild dermatitis. Do not add nitrites or other nitrosating agents. Addition of nitrites may lead to formation of nitrosamines, a substance known to be carcinogenic in laboratory animals.

3713 8883

Hazardous Materials Identification System (HMIS):

Health	3
Flammability	0
PPE	See Section 8

POTENTIAL HEALTH EFFECTS

Primary Entry Routes:

Eye contact, inhalation, ingestion, and skin contact.

Target Organs:

Central nervous system, eyes, respiratory system, and skin.

Acute Effects

- Eye:** Direct eye contact may cause irritation, redness, and swelling.
- Ingestion:** Ingestion may cause unpleasant burning sensation in mouth, throat, and stomach. Ingestion of large quantities may have toxic effects on the liver and kidneys.
- Inhalation:** Inhalation of excessive mists may cause irritation of the respiratory tract.
- Skin:** Prolonged or repeated skin contact causes dryness and may cause irritation and mild dermatitis.

Carcinogenicity:

International Agency for Research on Cancer (IARC), National Toxicology Program (NTP), and Occupational Safety and Health Administration (OSHA) do not list this product as a carcinogen.

Triethanolamine contains less than 1% diethanolamine. Preliminary findings from a chronic diethanolamine skin painting study include liver and kidney tumors in mice. No tumors were observed in rats. The significance of these findings will be evaluated when further information is released by NTP. A number of factors may have influenced the results and are being considered in their interpretation.

Medical Conditions Aggravated by Long-term Exposure:

Skin contact may aggravate existing allergies, dermatitis, or eczema.

Chronic Effects:

None known

Eye Contact:

Do not allow victim to rub or keep eyes tightly shut. Gently lift eyelids and flush with water immediately and continuously with flooding amount of water until transported to an emergency facility. Consult a physician immediately.

3713 8684

Ingestion:

Never give anything by mouth to an unconscious or convulsing person. Contact a poison control center. Unless the poison control center advises otherwise, have the conscious and alert person drink 1 to 2 glasses of water. Do not induce vomiting. After first aid, get appropriate in-plant, paramedic, or community medical support.

Inhalation:

Remove exposed person to fresh air. Monitor for respiratory distress. Consult a physician.

Skin Contact:

Avoid extended periods of skin contact or immersion as skin irritation may occur. If clothing becomes saturated with this product, remove the article of clothing and wash the exposed area with soap and water. Launder affected clothing before reuse. If skin irritation persists, consult a physician. As with the use of any industrial product, practice good hygiene habits and wear appropriate Personal Protection Equipment (PPE, see Section 8).

Note to Physicians:

None known

Special Precautions/Procedures:

None known

Flash Point:	Not determined
Flash Point Method:	Not determined
Burning Rate:	Not determined
Autoignition Temperature:	Not determined
Lower Explosion Limit (LEL):	Not determined
Upper Explosion Limit (UEL):	Not determined
Flammability Classification:	Not determined

National Fire Protection Association (NFPA) Ratings:**Extinguishing Media:**

Carbon dioxide, dry chemical, foam, or water fog or fine spray.

Unusual Fire or Explosion Hazards:

Container may rupture if subject to high temperature under pressure.

Hazardous Combustion Products:

During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to: nitrogen oxides, carbon monoxide, and carbon dioxide.

Fire-fighting Instructions:

Keep people away. Isolate fire and deny unnecessary entry. Burning liquids may be moved by flushing with water. Burning liquids may be extinguished by dilution with water.

Fire-fighting Equipment:

Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing including helmet, coat, pants, boots, and gloves. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

Spill/Leak Procedures:

Clear non-emergency personnel from the area. Contain material to prevent contamination of soil, surface water, and ground water. Absorb with non-combustible material and/or sand. Collect material in suitable and properly labeled open containers. Avoid material such as sawdust or cellulose.

Regulatory Requirements:

Follow applicable Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1910.120).

Handling Precautions:

In accordance with good industrial practice, handle with care and avoid unnecessary personal contact. Avoid contact with eyes and prolonged or repeated skin contact. Use only with adequate ventilation. For industrial use only. Do not mix with sodium nitrile or other nitrocellulose agents.

Storage Requirements:

Store in closed containers in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use and during transport. Do not store outside as product may freeze.

Regulatory Requirements:

None known. Follow applicable federal, state, and local laws and regulations.

Engineering Controls:

None

Ventilation:

Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA Permissible Exposure Limits (PELs) identified in Section 2. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Ventilation guidelines and techniques may be found in publications such as Industrial Ventilation (American Conference of Governmental Industrial Hygienists; 6500 Glenway Avenue, Building D-7; Cincinnati, OH 45211-4466).

Administrative Controls:

None

3713 8686

Page 4 of 8

Respiratory Protection:

Atmospheric levels should be maintained below the exposure guidelines identified in Section 2. For most conditions, no respiratory protection should be needed. However, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.

Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134). If necessary, wear an MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear a self-contained breathing apparatus (SCBA). *Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.* If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment:

Wear chemically protective apron, boots, and gauntlets or gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of or in conjunction with contact lenses.

Safety Stations:

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available to work area.

Contaminated Equipment:

Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes, and clean personal protective equipment.

Comments:

Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Note: The following properties should only be considered to be general working characteristics of this FMCO product. They do not necessarily represent historical or statistical production process variation. For more detailed information, please request a Technical Data Sheet for this product. For specific batch information, please make note of the Data Code-Lot number as it appears on the product's container label (E.g. 2800-12345) and request a Certificate of Analysis from FMCO at (800) 333-2833.

Appearance:	Clear, Light to dark amber
Boiling Point:	Approximately 212°F (100°C)
Density:	8.4-9.2 lb./gal
Evaporation Rate:	Similar to water
Formula Weight:	Not applicable; mixture
Freezing/Melting Point:	Approximately 32°F (0°C)
pH:	7.5-10.5
Physical State:	Liquid
Refractive Index:	Not determined
Solubility in Water:	Completely soluble
Solubility in Other Solvents:	Not identified

Specific Gravity (H ₂ O =1):	1.01-1.11
Surface Tension:	Not determined
Odor and Odor Threshold:	Bland
Vapor Pressure:	Not determined
Viscosity:	Not determined
% Volatile:	None

Stability:

Product is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization:

Hazardous polymerization will not occur.

Chemical Incompatibilities:

Incompatible with strong oxidizing agents and strong acids. Addition of these will render the product not usable for designed purpose.

Conditions to Avoid:

Avoid high heat unless proper ventilation is provided. Avoid mixing with nitriles or nitrosating agents. Addition of nitriles may lead to formation of nitrosamines, a substance known to be carcinogenic in laboratory animals.

Hazardous Decomposition Products:

Thermal oxidative decomposition of product can produce water vapor (H₂O), carbon monoxide (CO), carbon dioxide (CO₂), nitrogen oxides, and possibly other unidentified oxides.

Eye Effects:	No data
Skin Effects:	No data
Acute Inhalation Effects:	No data
Acute Oral Effects:	No data
Chronic Effects:	No data
Carcinogenicity:	No data
Mutagenicity:	No data
Teratogenicity:	No data

Ecotoxicity:	No data
Environmental Fate:	No data
Environmental Degradation:	No data
Soil Absorption/Mobility:	No data

Disposal

Contact licensed contractor for detailed recommendations. Follow applicable federal, state, and local laws and regulations.

Disposal Regulatory Requirements:
Not determined

Container Cleaning and Disposal:
Contact licensed contractor for detailed recommendations. Follow applicable federal, state, and local laws and regulations.

Department of Transportation (DOT) Data (49 CFR 172.101)

This product is not regulated by any means of transportation.

Shipping Name:	Not applicable
Shipping Symbols:	Not applicable
Hazard Class:	Not applicable
ID Number:	Not applicable
Packing Group:	Not applicable
Label:	Not applicable
Special Provisions (172.102):	Not applicable

Federal Regulations

Clean Air Act (CAA):

This product contains no hazardous air pollutants (HAPs). This product does not contain and was not manufactured with a Class I or Class II ozone depleting substance (ODS).

Clean Water Act (CWA):

This product contains no chemicals listed under the U.S. Clean Water Act Priority OSHA.

Occupational Safety and Health Administration (OSHA) Hazard Communication Standard:

This product is a hazardous chemical as defined by the OSHA Hazard Communication Standard (29 CF 1910.1200). It is considered a health hazard due to its ability to act as an irritant and a sensitizer.

Resource Conservation and Recovery Act (RCRA)

This product is not listed/classified as a hazardous waste.

Superfund Amendments and Reauthorization Act (SARA) of 1986 Title III, also known as the Emergency Planning and Community Right-to-Know Act (EPCRA):

Section 311: This product is a hazardous chemical as defined by OSHA. This product does not contain any Extremely Hazardous Substances (EHS).

Section 312: This product is a hazardous chemical as defined by OSHA. This product does not contain any Extremely Hazardous Substances (EHS).

Section 313: This product does not contain any toxic chemicals, appearing on the Section 313 Toxic Chemical List, in quantities above the *de minimis* concentration.

Toxic Substances Control Act (TSCA):

All ingredients are on the TSCA Chemical Substance Inventory or are not required to be listed on the TSCA Inventory.

STATE REGULATIONS

California Proposition 65:

This product contains no listed substances known to the State of California to cause cancer, birth defects, or other reproductive harm at levels which would require a warning under the statute.

Massachusetts Right-to-Know:

See Section 2.

Pennsylvania:

See Section 2.

Prepared by:
Revision Notes:
Previous Revision:

V. Don Angaselt
Additions to Sections 3, 6, and 8.
Additions to Section 5 and Glossary (June 19, 1988). New format and new information contained in this document. All sections revised (May 1, 1988).

Disclaimer:

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind—expressed or implied—is made with respect to the information contained herein. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. IRMCO is not responsible for injury, loss or damage, direct or consequential, arising from the use of or inability to use its products. Before using the product suitability and intended use should be verified. User assumes all risk and liabilities associated with the use of the product.

GLOSSARY

ACGIH
CAS
CER
EPC
IDLH
MSHA
NIOSH
NTP
OSHA
PEL
PPE
REL
STEL
TLV
TWA

American Conference of Governmental Industrial Hygienists
Chemical Abstracts Service
Code of Federal Regulations
International Agency for Research on Cancer
Immediately Dangerous to Life or Health
Mine Safety and Health Administration
National Institute for Occupational Safety and Health
National Technology Program
Occupational Safety and Health Administration
Permissible Exposure Limit
Personal Protective Equipment
Recommended Exposure Limit
Short-term Exposure Limit
Threshold Limit Value
Time-weighted Average



FAX TRANSMISSION

Date: December 21, 1999

FAX Number: 313-390-4145

To: Ford

Attention: Steve Reimers

Message: MSDS' for IRMCO FLUIDS® 819-000 and 185-000. Product Application Guide for 819-000.

From: Gina Pryor x3007
Corporate Sales and Marketing

Total Pages:

X 9 I think the fax machine grabbed 2 sheets in this set!

Notice: This message is intended only for the use of the individual or entity to which it is addressed, and may contain information that is product privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return the original message to us at the address listed below. Thank you.

3713 8691

2117 Greenleaf Street Evanston, Illinois 60202-1088 USA
847-864-0812 800-323-2833 Fax 847-864-0812 www.irmco.com

Dec. 21 1999 10:41PM PT

FROM : IRMCO Advanced Lubricant Tech. PHONE NO. : 847 864 0812



Material Safety Data Sheet

Date of Preparation: September 25, 1998
Revision:

Product Name: IRMCO FLUIDS® 818-000
Chemical Formula: Mixture
CAS Number: None
Other Designation: IRMCO 818-000 (formerly IRMCO 118)
General Use: This product is a water-based corrosion inhibitor and mild alkaline cleaner. There is no petroleum oil content in this product.

Manufacturer: IRMCO
2117 Greenleaf Street
Evanston, IL 60202-1088
(847) 864-0258 or (800) 323-2939 phone
(847) 864-0012 fax

Monday-Friday 8:00 AM-4:30 PM Central Standard Time (CST)

Ingredient Name	CAS Number		% wt	
triethanolamine (TEA)	102-71-5		12.0	

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
	TWA	STEL	TWA	STEL	TWA	STEL	
triethanolamine (TEA)			5 mg/m ³				IDLH

Emergency Overview

Avoid contact with eyes. Prolonged or repeated skin contact causes dryness and may cause irritation and mild dermatitis. Do not add nitrites or other nitrosating agents. Addition of nitrites may lead to formation of nitrosamines, a substance known to be carcinogenic in laboratory animals.

3713 8892

Hazardous Materials Identification System (HMIS):

Health	1
Flammability	0
Reactivity	0
PPE	See Section 8

Potential Health Effects

Primary Entry Routes:

Eye contact, Inhalation, Ingestion, and skin contact.

Target Organs:

Central nervous system, eyes, respiratory system, and skin.

Acute Effects

- Eye:** Direct eye contact may cause irritation, redness, and swelling.
- Ingestion:** Ingestion may cause unpleasant burning sensation in mouth, throat, and stomach. Ingestion of large quantities may have toxic effects on the liver and kidneys.
- Inhalation:** Inhalation of excessive mists may cause irritation of the respiratory tract.
- Skin:** Prolonged or repeated skin contact causes dryness and may cause irritation and mild dermatitis.

Carcinogenicity:

International Agency for Research on Cancer (IARC), National Toxicology Program (NTP), and Occupational Safety and Health Administration (OSHA) do not list this product as a carcinogen.

Triethanolamine contains less than 1% diethanolamine. Preliminary findings from a chronic diethanolamine skin painting study include liver and kidney tumors in mice. No tumors were observed in rats. The significance of these findings will be evaluated when further information is released by NTP. A number of factors may have influenced the results and are being considered in their interpretation.

Medical Conditions Aggravated by Long-term Exposure:

Skin contact may aggravate existing allergies, dermatitis, or eczema.

Chronic Effects:

None known

Eye Contact:

Do not allow victim to rub or keep eyes tightly shut. Gently lift eyelid and flush with water immediately and continuously with flooding amount of water until transported to an emergency facility. Consult a physician immediately.

Ingestion:

Never give anything by mouth to an unconscious or convulsing person. Contact a poison control center. Unless the poison control center advises otherwise, have the conscious and alert person drink 1 to 2 glasses of water. Do not induce vomiting. After first aid, get appropriate in-plant, paramedic, or community medical support.

Inhalation:

Remove exposed person to fresh air. Monitor for respiratory distress. Consult a physician.

Skin Contact:

Quickly remove contaminated clothing. Immediately rinse exposed area with flooding amounts of water. Wash exposed area with soap and water. If irritation persists, consult a physician.

Note to Physicians:

None known

Special Precautions/Procedures:

None known

Flash Point:	Not determined
Flash Point Method:	Not determined
Burning Rate:	Not determined
Autoignition Temperature:	Not determined
Lower Explosion Limit (LEL):	Not determined
Upper Explosion Limit (UEL):	Not determined
Flammability Classification:	Not determined

National Fire Protection Association (NFPA) Ratings:**Extinguishing Media:**

Carbon dioxide, dry chemical, foam, or water fog or fine spray.

Unusual Fire or Explosion Hazards:

Container may rupture if subject to high temperature under pressure.

Hazardous Combustion Products:

During a fire, smoke may contain the original material in addition to unidentified toxic and/or irritating compounds. Hazardous combustion products may include and are not limited to: nitrogen oxides, carbon monoxide, and carbon dioxide.

Fire-fighting Instructions:

Keep people away. Isolate fire and deny unnecessary entry. Burning liquids may be moved by flushing with water. Burning liquids may be extinguished by dilution with water.

Fire-fighting Equipment:

Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing including helmet, coat, pants, boots, and gloves. If protective equipment is not available or not used, fight fire from a protected location or safe distance.

Spill/Leak Procedures:

Clear non-emergency personnel from the area. Contain material to prevent contamination of soil, surface water, and ground water. Absorb with non-combustible material and/or sand. Collect material in suitable and properly labeled open containers. Avoid material such as sawdust or cellulose.

Regulatory Requirements:

Follow applicable Occupational Safety and Health Administration (OSHA) regulations (29 CFR 1910.120).

Handling Precautions:

In accordance with good industrial practice, handle with care and avoid unnecessary personal contact. Avoid contact with eyes and prolonged or repeated skin contact. Use only with adequate ventilation. For industrial use only. Do not mix with sodium nitrite or other nitrosating agents.

Storage Requirements:

Store in closed containers in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use and during transport. Do not store outside as product may freeze.

Regulatory Requirements:

None known. Follow applicable federal, state, and local laws and regulations.

Engineering Controls:

None

Ventilation:

Provide general or local exhaust ventilation systems to maintain airborne concentrations below OSHA Permissible Exposure Limits (PELs) identified in Section 2. Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Ventilation guidelines and techniques may be found in publications such as *Industrial Ventilation* (American Conference of Governmental Industrial Hygienists; 6500 Glenway Avenue, Building D-7; Cincinnati, OH 45211-4438).

Administrative Controls:

None

Respiratory Protection:

Atmospheric levels should be maintained below the exposure guidelines identified in Section 2. For most conditions, no respiratory protection should be needed. However, if handling at elevated temperatures without sufficient ventilation, use an approved air-purifying respirator.

Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134). If necessary, wear an NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. For emergency or non-routine operations (cleaning spills, reactor vessels, or storage tanks), wear a self-contained breathing apparatus (SCBA). **Warning!** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. If respirators are used, OSHA requires a written respiratory protection program that includes at least: medical certification, training, fit-testing, periodic environmental monitoring, maintenance, inspection, cleaning, and convenient, sanitary storage areas.

Protective Clothing/Equipment:

Wear chemically protective apron, boots, and gauntlets or gloves to prevent prolonged or repeated skin contact. Wear protective eyeglasses or chemical safety goggles per OSHA eye- and face-protection regulations (29 CFR 1910.133). Contact lenses are not eye protective devices. Appropriate eye protection must be worn instead of or in conjunction with contact lenses.

Safety Stations:

Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available to work area.

Contaminated Equipment:

Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes, and clean personal protective equipment.

Comments:

Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics.

Appearance:	Clear, amber
Boiling Point:	Approximately 212°F (100°C)
Density:	8.4-8.2 g/ml
Evaporation Rate:	Similar to water
Formula Weight:	Not applicable; mixture
Freezing/Melting Point:	Approximately 32°F (0°C)
pH:	8.5-10.5
Physical State:	Liquid
Refractive Index:	Not determined
Solubility in Water:	Completely soluble
Solubility in Other Solvents:	Not identified
Specific Gravity (H ₂ O = 1):	1.01-1.11
Surface Tension:	Not determined
Odor and Odor Threshold:	Bland
Vapor Density (air = 1):	Not determined
Vapor Pressure:	Not determined
Viscosity:	Not determined
% Volatile:	None

Stability:

Product is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization:

Hazardous polymerization will not occur.

Chemical Incompatibilities:

Incompatible with strong oxidizing agents and strong acids. Addition of these will render the product not usable for designed purpose.

Conditions to Avoid:

Avoid high heat unless proper ventilation is provided. Avoid mixing with nitrites or nitrosating agents. Addition of nitrites may lead to formation of nitrosamines, a substance known to be carcinogenic in laboratory animals.

Hazardous Decomposition Products:

Thermal oxidative decomposition of product can produce water vapor (H₂O), carbon monoxide (CO), carbon dioxide (CO₂), nitrogen oxides, and possibly other unidentified oxides.

Section 11: Toxicology Information

Eye Effects:	No data
Skin Effects:	No data
Acute Inhalation Effects:	No data
Acute Oral Effects:	No data
Chronic Effects:	No data

Carcinogenicity:	No data
Mutagenicity:	No data
Teratogenicity:	No data

Ecotoxicity:	No data
Environmental Fate:	No data
Environmental Degradation:	No data
Soil Absorption/Mobility:	No data

Disposal:

Contact licensed contractor for detailed recommendations. Follow applicable federal, state, and local laws and regulations.

Disposal Regulatory Requirements:

Not determined

Container Cleaning and Disposal:

Contact licensed contractor for detailed recommendations. Follow applicable federal, state, and local laws and regulations.

Department of Transportation (DOT) Data (49 CFR 172.101)

This product is not regulated by any means of transportation.

Shipping Name:	Not applicable
Shipping Symbols:	Not applicable
Hazard Class:	Not applicable
ID Number:	Not applicable
Packing Group:	Not applicable
Label:	Not applicable
Special Provisions (172.102):	Not applicable

Federal Regulations**Clean Air Act (CAA):**

This product contains no hazardous air pollutants (HAPs). This product does not contain and was not manufactured with a Class I or Class II ozone depleting substance (ODS).

Clean Water Act (CWA):

This product contains no chemicals listed under the U.S. Clean Water Act Priority OSHA.

Occupational Safety and Health Administration (OSHA) Hazard Communication Standard:

This product is a hazardous chemical as defined by the OSHA Hazard Communication Standard (29 CF 1910.1200). It is considered a health hazard due to its ability to act as an irritant and a sensitizer.

Resource Conservation and Recovery Act (RCRA)

3713 8697

This product is not listed/classified as a hazardous waste.

Superfund Amendments and Reauthorization Act (SARA) of 1986 Title III, also known as the Emergency Planning and Community Right-to-Know Act (EPCRA):

Section 311: This product is a hazardous chemical as defined by OSHA. This product does not contain any Extremely Hazardous Substances (EHS).

Section 312: This product is a hazardous chemical as defined by OSHA. This product does not contain any Extremely Hazardous Substances (EHS).

Section 313: This product does not contain any toxic chemicals, appearing on the Section 313 Toxic Chemical List, in quantities above the de minimis concentration.

Toxic Substances Control Act (TSCA):

All ingredients are on the TSCA Chemical Substance Inventory or are not required to be listed on the TSCA Inventory.

State Regulations

California Proposition 65:

This product contains no listed substances known to the State of California to cause cancer, birth defects, or other reproductive harm at levels which would require a warning under the statute.

Massachusetts Right-to-Know:

See Section 2.

Pennsylvania:

See Section 2.

Prepared by:

V. Don Angstadt

Revision Notes:

Six additions to Glossary (September 25, 1998).

Previous Revision:

Additions (four items) to Glossary (August 10, 1998). Additions to Sections 3, 6, and 8 (July 14, 1998). Additions to Section 5 and Glossary (June 19, 1998). New format and new information contained in this document. All sections revised (May 1, 1998).

Disclaimer:

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind—expressed or implied—is made with respect to the information contained herein. Regulatory requirements are subject to change and may differ from one location to another. It is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws.

Glossary

ACGIH
ASTM
CAS
CFR
EC₅₀
HMIS
IARC
IATA

American Conference of Governmental Industrial Hygienists
American Society for Testing Materials
Chemical Abstracts Service
Code of Federal Regulations
(50%) Effective Concentration
Hazardous Materials Identification System
International Agency for Research on Cancer
International Air Transport Association

3713 8898

IDLH	Immediately Dangerous to Life or Health
LC ₅₀	(50%) Lethal Concentration
MSHA	Mine Safety and Health Administration
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
n.o.s.	Not Otherwise Specified
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PMCC	Pendley-Martens Closed Cup; ASTM D 63
PPE	Personal Protective Equipment
REL	Recommended Exposure Limit
SETA	Settling Closed Cup; ASTM D 3278
STEL	Short-term Exposure Limit
TCC	Teglabue Closed Cup; ASTM D 68
TLV	Threshold Limit Value
TWA	Time-weighted Average

Exponent
Failure Analysis Associates

INVOICE

Please make checks payable to:
Exponent Failure Analysis Associates, Inc.
P.O. Box 200283 Dept. 001
Dallas, TX 75320-0283
BILLING INQUIRIES 214-324-9100
Federal Tax ID: 77-0218904

January 7, 2000
Invoice No. 40964
Project No. DT55052.000

KATHY MILLS
DEFIANCE TESTING & ENRG SERVICES, INC.
950 MAPLELAWN
TROY, MI 48064

For: BRAKE PRESSURE SWITCH (RJP)
P.O. # 9914407

Ref # AARRL99566831

Professional Services for the period ending December 31, 1999

Task: A000 PRIMARY ANALYSIS

Professional Personnel

	Hours	Rate	Amount
Managing Engineer			
EDWARD M. PADDOCK	1.0	175.00	175.00
Sr. Engineer			
ROBERT J. PANEK	5.1	125.00	637.50
Technical Assistant	17.2		1,376.00
Total	23.3		
Total Labor			2,188.50

Reimbursable Expenses

FILM PROCESSING & PRINTS	195.92	
REFERENCE MATERIALS	55.66	
TESTING & MACHINERY	29.04	
TOOLS & INST. PURCHASES	41.93	
Total Reimbursables	322.55	322.55

Unit Billings

Materials & Supplies	87.86
Total Unit Billing	87.86

Total this Task \$ 2,598.91

Task: B000 RETURN PART TESTING

3713 8700

**PAYMENT DUE
UPON RECEIPT**

Exponent

Failure Analysis Associates

INVOICE

Please make checks payable to:
Exponent Failure Analysis Associates, Inc.
P.O. Box 200283 Dept. 002
Dallas, Tx 75320-0283
BILLING INQUIRIES 214-324-9100
Federal Tax ID: 77-0218904

Invoice No. 40964
Project No. DT55052.000
Page 2

Professional Personnel

	Hours	Rate	Amount
Managing Engineer			
EDWARD M. PADDOCK	26.5	175.00	4,637.50
Sr. Engineer			
JAMES K. SPRAGUE, PhD	5.0	155.00	775.00
WILLIAM A. YAHRAUS	16.7	160.00	2,672.00
Total	48.2		
Total Labor			8,084.50 8,084.50

Reimbursable Expenses

TOOLS & INST. PURCHASES	872.69	
Total Reimbursables	872.69	872.69

Total this Task \$ 8,957.19

Task: C000 RETURN PART LOGGING

Professional Personnel

	Hours	Rate	Amount
Managing Engineer			
EDWARD M. PADDOCK	7.9	175.00	1,382.50
Sr. Engineer			
JAMES K. SPRAGUE, PhD	9.4	155.00	1,457.00
WILLIAM A. YAHRAUS	16.1	160.00	2,576.00
Total	33.4		
Total Labor			5,415.50 5,415.50

Total this Task \$ 5,415.50

Task: D000 RETURN PART SORTING

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**PAYMENT DUE
UPON RECEIPT**

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Project No. DT55052.000 BRAKE PRESSURE SWITCH (RJP)
Invoice No. 40964 January 7, 2000

Date	EmpNo /AGnt	LabCD /Vchr	Name	Description/Comment	Hours /Qty	Rate	Billing Amount

Task: A000 PRIMARY ANALYSIS							

Labor							
Managing Engineer							
11/30/99	01573	B0000	EDWARD M. PADDOCK	Misc Data / Analysis Issues	1.0	175.00	175.00
Sr. Engineer							
11/23/99	01714	B0000	ROBERT J. PANER	Cut open parts for investigation	3.9	125.00	487.50
12/22/99	01714	B0000	PANER, ROBERT	Open and Review High Mileage Parts	1.2	125.00	150.00
Technical Assistant							
11/02/99	01887	B0000	PAUL E. RICHARDS	photos / documentation	2.8	80.00	224.00
11/03/99	01887	B0000	RICHARDS, PAUL	photos / documentation	2.2	80.00	176.00
11/29/99	01887	B0000	RICHARDS, PAUL	photography	4.2	80.00	336.00
12/16/99	01887	B0000	RICHARDS, PAUL	photograph / inspection	3.2	80.00	256.00
12/22/99	01887	B0000	RICHARDS, PAUL	Laboratory testing	4.8	80.00	384.00
Totals					23.3		2,188.50
Total Labor							2,188.50
Reimbursables							
12/17/99	500.45	3901786	PHOTO 1	CD/FILM PROCESSING			82.16
12/17/99	500.45	3901787	PHOTO 1	CD/FILM PROCESSING			103.75
10/07/99	500.55	3320591	ROBERT J PANER	Sample Parts			55.65
11/29/99	500.71	3901829	F-STOP, INC.	PHOTO BULK			29.04
10/28/99	500.75	3901756	F-STOP, INC.	BULK			11.50
11/02/99	500.75	3901757	F-STOP, INC.	ELECTRIC SOCKETS			20.35
Total Reimbursables							322.55
Units							
11/03/99	012		Materials & Supplies		55.86	1.000	55.86
12/01/99	012		Materials & Supplies		32.00	1.000	32.00
Total Unit Billing							87.86
Total this Task							2,598.91

Task: B000 RETURN PART TESTING							

Labor							
Managing Engineer							
11/21/99	01573	B0000	EDWARD M. PADDOCK	Returned Part Evaluation	4.3	175.00	752.50
11/24/99	01573	B0000	PADDOCK, EDWARD	Returned Part Evaluation	2.6	175.00	455.00
11/29/99	01573	B0000	PADDOCK, EDWARD	Returned Part Analysis	2.4	175.00	420.00
12/01/99	01573	B0000	PADDOCK, EDWARD	Returned Part Analysis	5.4	175.00	945.00

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Date	EmpNo /Acct	LabCd /Vchr	Name	Description/Comment	Hours /Qty	Rate	Billing Amount
12/02/99	01573	B0000	PADDOCK, EDWARD	Returned Part Analysis	6.8	175.00	1,190.00
12/03/99	01573	B0000	PADDOCK, EDWARD	Returned Part Analysis	4.6	175.00	805.00
Sr. Engineer							
11/29/99	01414	B0000	JAMES E. SPRAGUE, PhD	testing	1.7	155.00	263.50
11/30/99	01414	B0000	SPRAGUE, PhD, JAMES	testing	2.6	155.00	403.00
12/02/99	01414	B0000	SPRAGUE, PhD, JAMES		1.7	155.00	263.50
11/22/99	00640	B0000	WILLIAM A. YANRAUS	Test parts & log data.	4.0	160.00	640.00
11/23/99	00640	B0000	YANRAUS, WILLIAM	Test parts & log data.	5.1	160.00	816.00
12/02/99	00640	B0000	YANRAUS, WILLIAM		7.6	160.00	1,216.00
Totals					46.2		8,084.50
Total Labor							8,084.50

Reimbursables

12/01/99 500.75 1901830 RS ELECTRONICS FLUKES METER
12/01/99 500.75 1901831 METAL SUPERMARKETS ALUMINUM ANGLE

504.54
69.15
Total Reimbursables 573.69
Total this Task 8,658.19

Task: C000 RETURN PART LOGGING

Labor

Managing Engineer

11/22/99	01573	B0000	EDWARD M. PADDOCK	Data Base Entry	1.6	175.00	280.00
11/22/99	01573	B0000	PADDOCK, EDWARD	Initial Setup & Debug Run	3.2	175.00	560.00
11/23/99	01573	B0000	PADDOCK, EDWARD	Data Base Entry & Part Sorting	2.2	175.00	385.00
12/02/99	01573	B0000	PADDOCK, EDWARD	Data Base Entry	1.7	175.00	297.50
Sr. Engineer							
11/30/99	01414	B0000	JAMES E. SPRAGUE, PhD	logging	3.1	155.00	480.50
12/02/99	01414	B0000	SPRAGUE, PhD, JAMES		5.2	155.00	806.00
12/09/99	01414	B0000	SPRAGUE, PhD, JAMES	logging	1.1	155.00	170.50
11/24/99	00640	B0000	WILLIAM A. YANRAUS	Test parts & log data.	2.5	160.00	400.00
11/29/99	00640	B0000	YANRAUS, WILLIAM	Test parts & log data.	6.0	160.00	960.00
11/30/99	00640	B0000	YANRAUS, WILLIAM	Test parts & log data.	6.8	160.00	1,088.00
12/09/99	00640	B0000	YANRAUS, WILLIAM	Log data.	.9	160.00	144.00
Totals					33.4		5,415.50

Total Labor 5,415.50

Total this Task 5,415.50

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Date	EmpNo /Acct	LabCD /Vchr	Name	Description/Comment	Hours /Qty	Rate	Billing Amount

Task: 0000 RETURN PART SORTING							

Labor							
Sr. Engineer							
11/20/99	01414	B0000	JAMES K. SPRAGUE, PhD	sorting	.4	155.00	62.00
12/02/99	01414	B0000	SPRAGUE, PhD, JAMES		.2	155.00	45.50
12/01/99	00640	B0000	WILLIAM A. YANRAUS	Test parts & log data.	3.0	160.00	480.00
12/01/99	00640	B0000	YANRAUS, WILLIAM	Test parts & log data.	5.4	160.00	864.00
12/09/99	00640	B0000	YANRAUS, WILLIAM	Sort logged parts.	.3	160.00	48.00
Totals					9.4		1,500.50
					Total Labor		1,500.50
					Total this Task		1,500.50

Task: 2000 DATABASE & PROJECT MANAGEMENT

Date	EmpNo /Acct	LabCD /Vchr	Name	Description/Comment	Hours /Qty	Rate	Billing Amount

Labor							
Sr. Engineer							
11/01/99	01714	B0000	ROBERT J. PANEK	Mtg w/E Reimers & log return pts & proj prep	5.8	125.00	727.50
11/02/99	01714	B0000	PANEK, ROBERT	Create Data Base and Make Inspection Plan	3.7	125.00	462.50
11/04/99	01714	B0000	PANEK, ROBERT	Test Jig Layout	1.9	125.00	237.50
11/05/99	01714	B0000	PANEK, ROBERT	Test Jig Layout	2.6	125.00	325.00
11/08/99	01714	B0000	PANEK, ROBERT	Search for containers to store parts	3.5	125.00	437.50
11/10/99	01714	B0000	PANEK, ROBERT	Pick up and temp. store parts	4.0	125.00	500.00
11/11/99	01714	B0000	PANEK, ROBERT	Arrange for parts storage	4.9	125.00	612.50
11/12/99	01714	B0000	PANEK, ROBERT	Pick Up Parts at Ford and Store	5.3	125.00	662.50
11/23/99	01714	B0000	PANEK, ROBERT	Prep Storage Bins - Begin Logging Pts.	2.3	125.00	287.50
11/29/99	01714	B0000	PANEK, ROBERT	Manage Data Base & Data Collection	2.3	125.00	287.50
11/30/99	01714	B0000	PANEK, ROBERT	Manage Data Base & Data Collection	1.2	125.00	150.00
12/01/99	01714	B0000	PANEK, ROBERT	Manage Data Base & Data Collection	1.6	125.00	200.00
12/02/99	01714	B0000	PANEK, ROBERT	Review Data Base Structure	1.6	125.00	200.00
12/06/99	01714	B0000	PANEK, ROBERT	Prepare database breakdown	6.0	125.00	750.00
12/07/99	01714	B0000	PANEK, ROBERT	Pick up / store parts	4.4	125.00	550.00
12/08/99	01714	B0000	PANEK, ROBERT	Combine Ford Data and Exponent Data	5.8	125.00	725.00
12/09/99	01714	B0000	PANEK, ROBERT	Perform and Check DBQ Queries	6.7	125.00	837.50
12/15/99	01714	B0000	PANEK, ROBERT	Data Base Manipulation	6.2	125.00	775.00
12/16/99	01714	B0000	PANEK, ROBERT	Data Base Manipulation	7.7	125.00	962.50
12/17/99	01714	B0000	PANEK, ROBERT	Data Base Manipulation	5.9	125.00	737.50
12/20/99	01714	B0000	PANEK, ROBERT	Data Base Management	2.1	125.00	262.50
12/21/99	01714	B0000	PANEK, ROBERT	Data Base Mgmt	6.9	125.00	862.50
12/22/99	01714	B0000	PANEK, ROBERT	Data Base Mgmt	4.5	125.00	562.50
12/23/99	01714	B0000	PANEK, ROBERT	Data Base Mgmt	4.3	125.00	537.50

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Date	EmpNo /Acct	LabCd /Vchr	Name	Description/Comment	Hours /Qty	Rate	Billing Amount
Jr. Scientist							
11/05/99	86469	B0000	VALERIE A. CRAVEN	Prep, discuss database, setup	1.5	68.00	102.00
11/08/99	86469	B0000	CRAVEN, VALERIE	Purchase bins, set up access	4.5	68.00	306.00
11/10/99	86469	B0000	CRAVEN, VALERIE	Pick up parts	2.0	68.00	136.00
11/11/99	86469	B0000	CRAVEN, VALERIE	Unload parts/space for parts	3.0	68.00	204.00
11/15/99	86469	B0000	CRAVEN, VALERIE	Setup database, make pres board	7.0	68.00	476.00
11/16/99	86469	B0000	CRAVEN, VALERIE	Discuss, find bags	.5	68.00	34.00
11/17/99	86469	B0000	CRAVEN, VALERIE	Edit db; tag files; to enter data	4.5	68.00	306.00
11/18/99	86469	B0000	CRAVEN, VALERIE	Setup database (Sat.)	5.5	68.00	374.00
11/19/99	86469	B0000	CRAVEN, VALERIE	Set up area to data entry, test	5.5	68.00	374.00
11/22/99	86469	B0000	CRAVEN, VALERIE		5.0	68.00	340.00
11/29/99	86469	B0000	CRAVEN, VALENIE	Fix db; discuss plans; check PA Code	1.5	68.00	102.00
11/30/99	86469	B0000	CRAVEN, VALENIE	Fix db; discuss plans; check PA Code	2.1	68.00	142.80
12/02/99	86469	B0000	CRAVEN, VALERIE	Fixdata entry; discuss plans/probs; bins	4.8	68.00	326.40
12/08/99	86469	B0000	CRAVEN, VALERIE	Comm; histograms	1.0	68.00	68.00
12/13/99	86469	B0000	CRAVEN, VALERIE	Comm. w/Hob	1.0	68.00	68.00
Technical Assistant							
11/04/99	01887	B0000	PAUL E. RICHARDS	fixture design	1.2	80.00	96.00
11/11/99	01887	B0000	RICHARDS, PAUL	Miscellaneous admin tasks	4.5	80.00	360.00
11/15/99	01887	B0000	RICHARDS, PAUL	fixture fabrication/weldment	6.0	80.00	480.00
11/16/99	01887	B0000	RICHARDS, PAUL	Instrumentation	4.0	80.00	320.00
11/19/99	01887	B0000	RICHARDS, PAUL	Miscellaneous admin tasks	4.0	80.00	320.00
11/19/99	01887	B0000	RICHARDS, PAUL	Instrumentation	2.2	80.00	176.00
11/30/99	01887	B0000	RICHARDS, PAUL	Instrumentation	1.2	80.00	96.00
12/01/99	01887	B0000	RICHARDS, PAUL	acquire test equipment quote and materials	3.2	80.00	256.00
12/02/99	01887	B0000	RICHARDS, PAUL	fixture build / weldment	4.2	80.00	336.00
12/03/99	01887	B0000	RICHARDS, PAUL	fixture build / weldment	4.3	80.00	344.00
12/06/99	01887	B0000	RICHARDS, PAUL	Instrumentation	2.1	80.00	168.00
12/07/99	01887	B0000	RICHARDS, PAUL	acquire test parts	2.3	80.00	184.00
12/14/99	01887	B0000	RICHARDS, PAUL	test parts pickup & storage	2.1	80.00	168.00
12/21/99	01887	B0000	RICHARDS, PAUL	test sample pickup	2.3	80.00	184.00
Totals					128.2		19,980.10
Total Labor							19,980.10
Reimbursables							
11/15/99	500.09	3320591	ROBERT J PANEX	Parts Bins			661.14
11/16/99	500.09	3320591	ROBERT J PANEX	Sample Bags			302.21
11/08/99	500.09	3901760	METAL SUPERMARKETS	STOCK SUPPLIES			41.39
11/06/99	500.55	3320591	ROBERT J PANEX	MS Access Doc.			54.84
Total Reimbursables							1,059.58
Total this Task							21,039.68
Total this Project							19,811.68

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