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Schedule No. 4-7-12

Retain Until 2021



Inter Office

Research and Vehicle Technology

June 27, 2001

To: Manager

Subject: Crash Test No. 12050, T-01775 Test Report Corrections, R/2

The final report of the subject crash test was corrected as follows:

Sheet 4 Document Injury Data (FVEM 2001) - The Dummy Neck Upper Load was changed from:

	<u>L.F. Dummy</u>	<u>R.F. Dummy</u>
NTE	0.2453	0.1195
NTF	0.2475	0.2417
NCE	0.1318	0.1603
NCF	0.0986	0.2488

to:

	<u>L.F. Dummy</u>	<u>R.F. Dummy</u>
NTE	0.2453	0.1195
NTF	0.2475	0.2417
NCE	0.01753	0.0541
NCF	0.0986	0.2488

*M. A. DeShong*

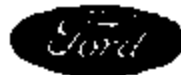
M. A. DeShong  
Operations Engineering Section  
Safety Laboratories Department

*M. Hamilton*

Concur: M. Hamilton  
Section Supervisor  
Operations Engineering Section

corr. 12050

CRTS 0012050



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Schedule No. 7-7-12  
Retain Until 2021

Inter Office

Research and Vehicle Technology

February 5, 2001

To: Manager

Subject: Crash Test No. 12050, T-C1775 Test Report Corrections, R/1

The final report of the subject crash test was corrected as follows:

Sheet 3

Remarks - The file names of the still images are listed under crash number and a three digit sequence number which are 12050001 through 12050079 was changed to "The file names of the still images are listed under crash number and a three digit sequence number which are 12050001 through 12050075".

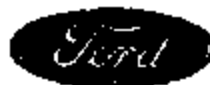
*M. A. Dalhong*

K. A. Dalhong  
Operations Engineering Section  
Safety Laboratories Department

*H. M. Lash*  
Concur: H. Lash  
Section Supervisor  
Operations Engineering Section

corr-12050

CRTS 0012050



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Schedule No. 7-7-12  
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**FINAL TEST REPORT**

**CONFIDENTIAL**

**Global Test Operations  
Research and Vehicle Technology**

**TO:** K. Warmann

Test Order No.	T-C1775
Work Task W. O. No.	F16
Test Date	10/26/00
Date Reported	1/23/01
Sheet	1 of 4

**SUBJECT:** Crash Test 12050 (90° Front Fixed Barrier Impact at  $24.8 \pm 0.4$  mph,  $39.9 \pm 0.6$  km/h) - 2000 Taurus (DISS) 4-Door Sedan

**REQUESTED BY:** Vehicle Crash Safety Department, Research and Vehicle Technology - K. Warmann

**OBJECT:** To obtain development data relative to the NHTSA proposed procedure.

**SUMMARY OF TEST RESULTS:** See Section 1.0 for injury criteria data.

  
R. Hambert  
Engineering Technologist

  
Concur: S. Leth  
Section Supervisor  
Operations Engineering Section



**GENERAL TEST COMMENTS:**

**1. Test Procedure**

The test was performed according to the following Corporate test procedure(s):

- Occupant Crash Protection, CBP-ST-25 dated March 3, 1998.
- NPRM - Proposed FMVSS 208 Advanced Technology Air Bag Performance Tests.

**1.1 Significant Deviations**

No standard was used on this test, at the discretion of the requester.

**2. Remarks**

Crash movies, pre- and post-crash still images of the test vehicle and copies of this report are available through the Operations Engineering Section, Safety Laboratories Department, GTO. The crash still images are stored and archived on CD ROMs. The file names of the still images are listed under crash number and a three digit sequence number which are 12050001 through 12050075.

**TEST RESULTS:****1.0 Occupant Injury Data (FMVSS 208)**

	<u>L.E.Dummy</u>	<u>R.E.Dummy</u>
<b>Head Injury Criteria (HIC) @ 15 ms</b>	91	113
Interval		
t1	98 ms	91 ms
t2	113 ms	106 ms
<b>Dummy Neck Upper Load</b>		
NTE	0.2433	0.1195
NTP	0.2476	0.2417
NCE	0.01753	0.0541
NCF	0.0936	0.2488
<b>Chest resultant acceleration level at 3 ms cumulative duration</b>	55 g	47 g
<b>Chest Deflection (Hybrid III)</b>	2.0 in	0.3 in
<b>Peak axial compression load:</b>		
Left femur	992 lb	1335 lb
Right femur	1338 lb	1346 lb
<b>Peak axial tension load:</b>		
Left femur	58 lb	74 lb
Right femur	39 lb	35 lb
<b>Dummy contained within the vehicle during the crash</b>	Yes	Yes

Time histories of the dummy instrumentation are included in this report.

Time histories of the dummy dynamic displacements obtained from Film Analysis are included in this report.

Time histories of any requested derived data (i.e. integrations, etc.) were given to the requesting activity and are not included in this report.

**2.0 Vehicle Crash, Film Analysis and/or Instrumentation Data**

**Maximum Dynamic Longitudinal Crush**  
in. (mm)

Left Side	19.5	(495)
Right Side	19.3	(490)

Time histories of the vehicle accelerations and other instrumentation are included in this report.

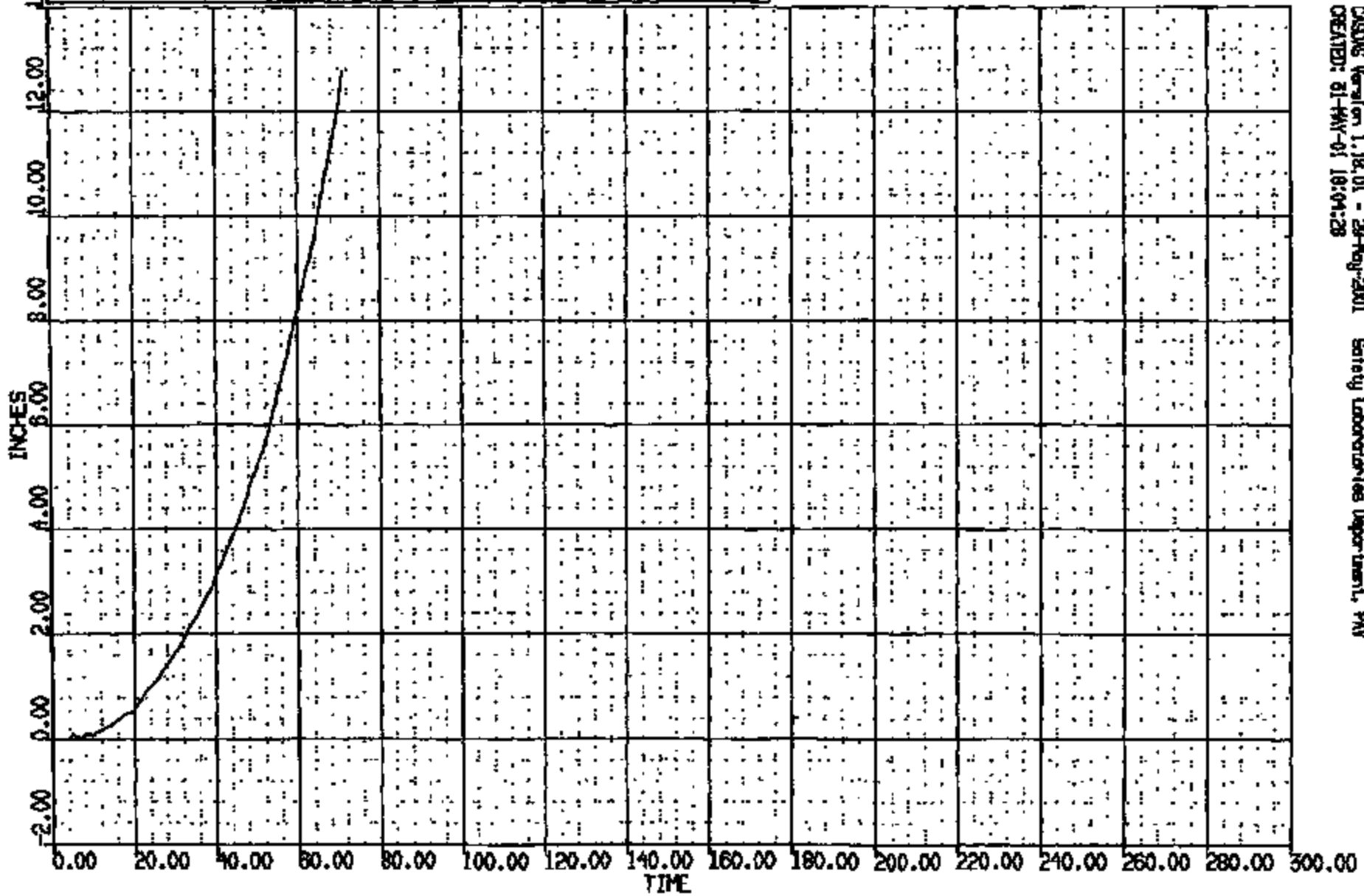
Time histories of vehicle dynamic displacements obtained from Film Analysis are included in this report.

Static displacements of various body points obtained from Film Analysis are included in this report.

Time histories of any requested derived data (i.e. integrations, etc.) were given to the requesting activity and are not included in this report.

NO. 12050 TO: TC1775 DATE: 00102 13:59:18  
RCSO D180

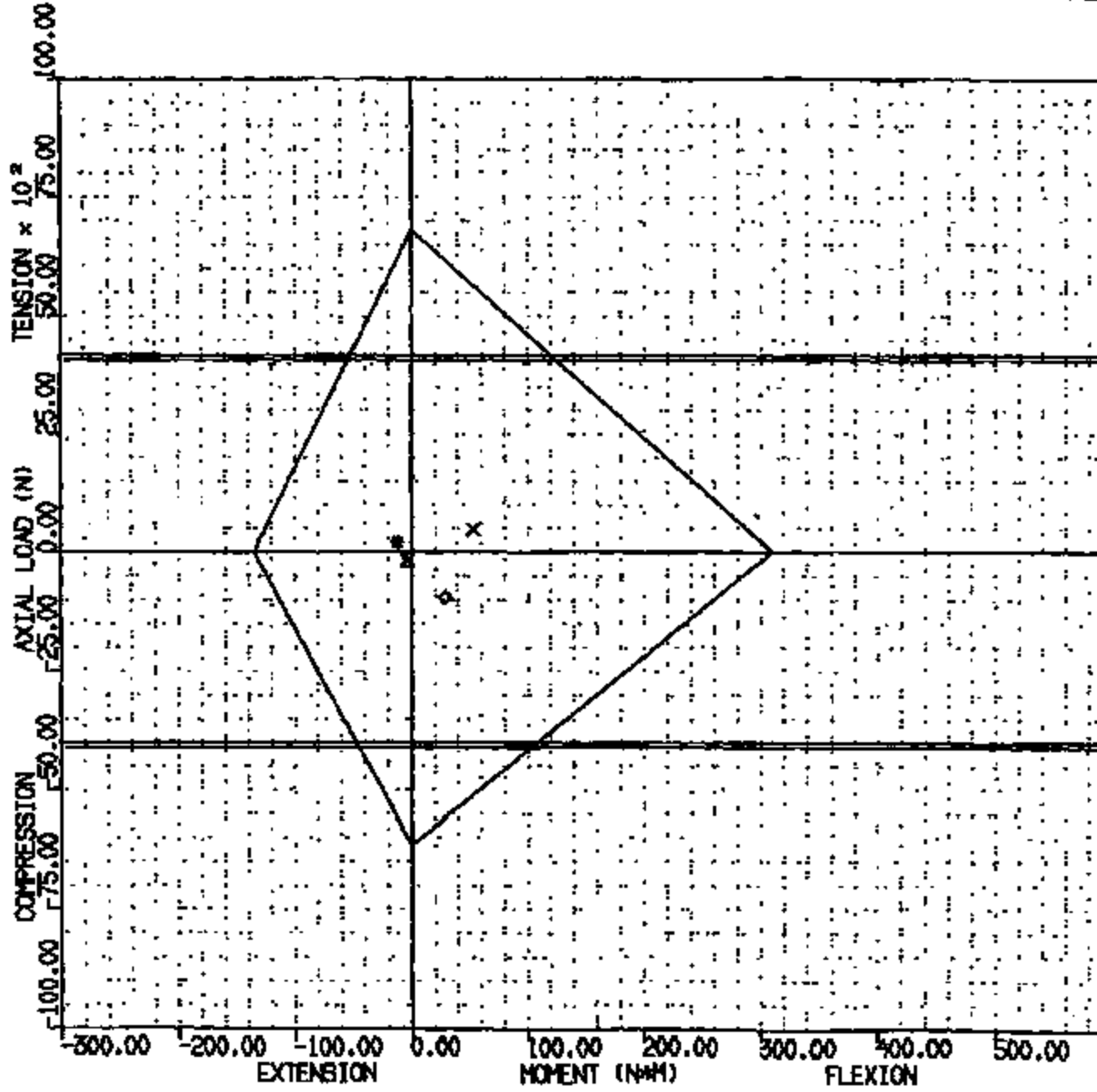
(0) CR12050 R S HEAD PASS WRT R RGR AT B PL LONG DISP  
MAX = 12.75 at 71.00 MS MIN = -.100E-04 at 1.000 MS **AXIS 1**



CRSIO Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PHV  
CREATED: 01-MAY-01 18:04:28

CRIS 0012050

58200 NIJ NECK INJURY CRITERIA CORRIDOR PLOT  
 FROM: 12080 TO: TC1778 DATE: 001021 15:50:18  
 CASE: DUMMY IN POSITION TEST  
 CR: ROBOT\_R/F\_DUMMY\_NECK\_UPPER\_LOAD\_FZ\_500N  
 CR: ROBOT\_R/F\_DUMMY\_NECK\_UPPER\_LOAD\_MY\_500N [CORR]



**FOREIGN**

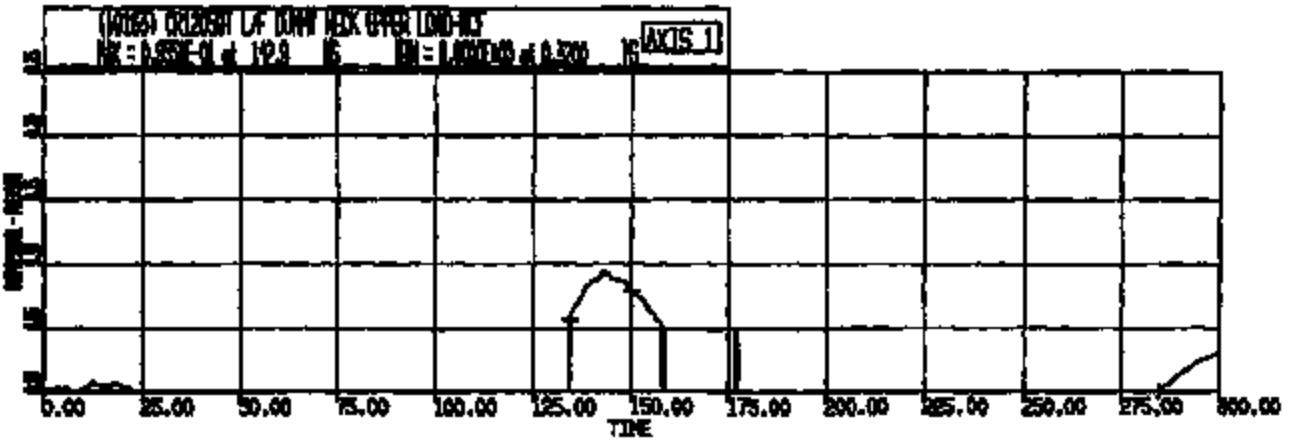
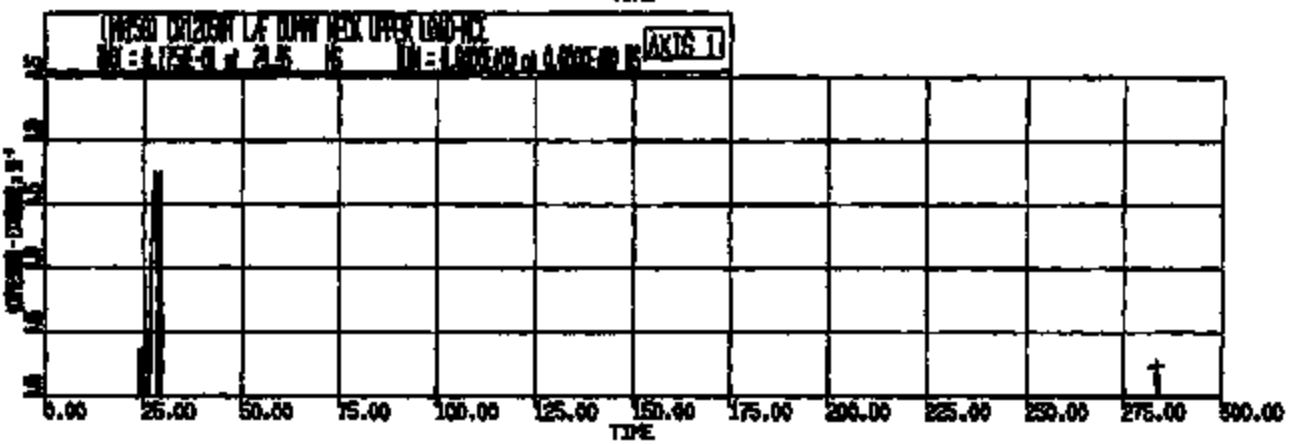
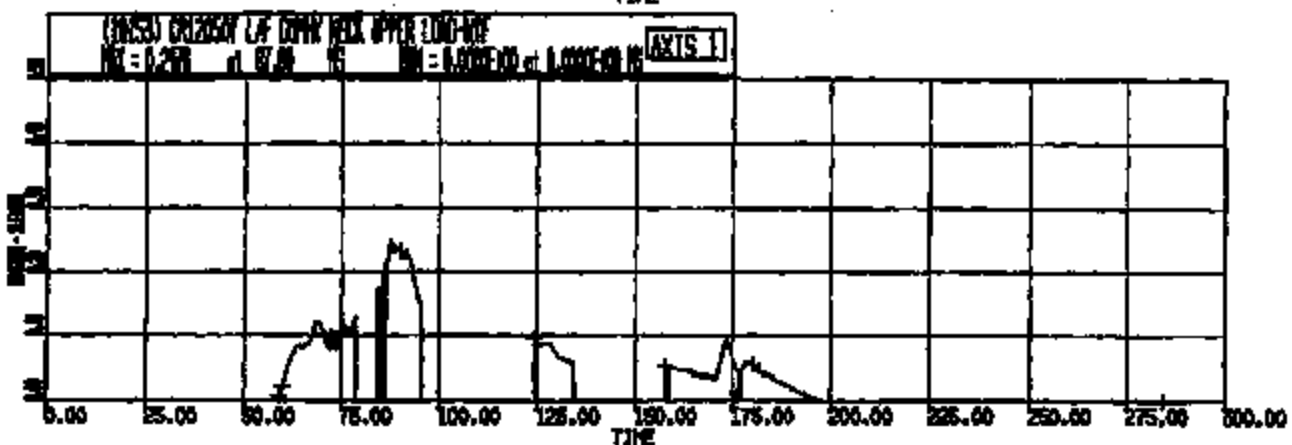
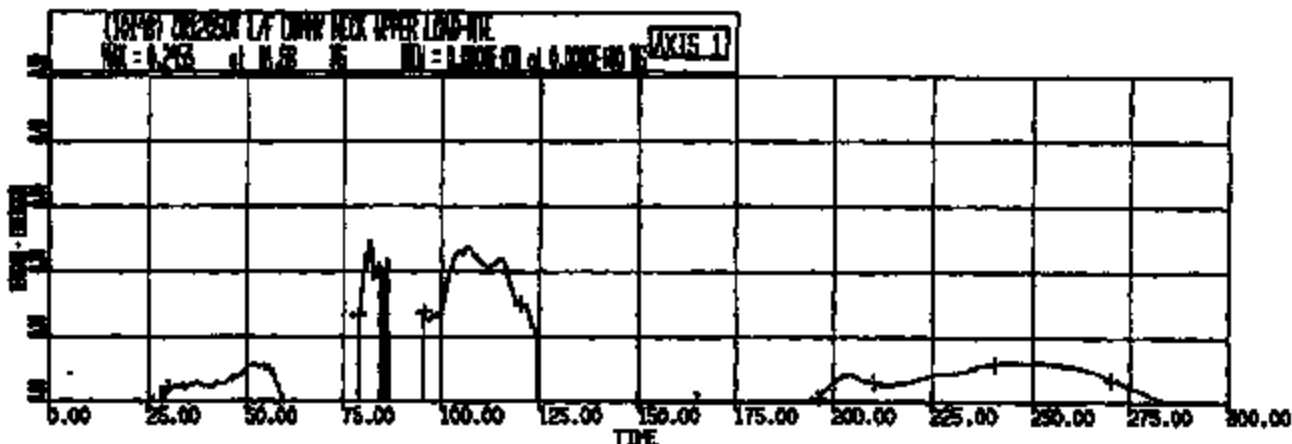
AXIS 1 (10265,10268) NECK TENSION EXTENSION @ TIME OF MAX NIE MAX = 210.7 at -11.95 MIN = 210.7 at -11.95
AXIS 1 (10261,10260) NECK TENSION FLEXION @ TIME OF MAX NTF MAX = 485.6 at 52.82 MIN = 485.6 at 52.82
AXIS 1 (10267,10268) NECK COMPRESSION EXTENSION @ TIME OF MAX NCE MAX = -184.5 at -3.260 MIN = -184.5 at -3.260
AXIS 1 (10265,10268) NECK COMPRESSION FLEXION @ TIME OF MAX NCF MAX = -954.6 at 29.10 MIN = -954.6 at 29.10
AXIS 1 (0,0) NIJ CORRIDOR MAX = 6808. at 0.0000E+00 MIN = -6160. at 0.0000E+00
AXIS 1 (0,0) PEAK TENSION CRITERIA MAX = 4170. at -300.0 MIN = 4170. at -300.0
AXIS 1 (0,0) PEAK COMPRESSION CRITERIA MAX = -4000. at -300.0 MIN = -4000. at -300.0
AXIS 1 (0,0) X AND Y AXES MAX = 0.1000E+05 at 0.0000E+00 MIN = -.1000E+05 at 0.0000E+00

CRISIS Version 1.18.01 - 20-May-2001 Safety Laboratories Department, PNV  
 CREATED: 01-MAY-01 16:12:38

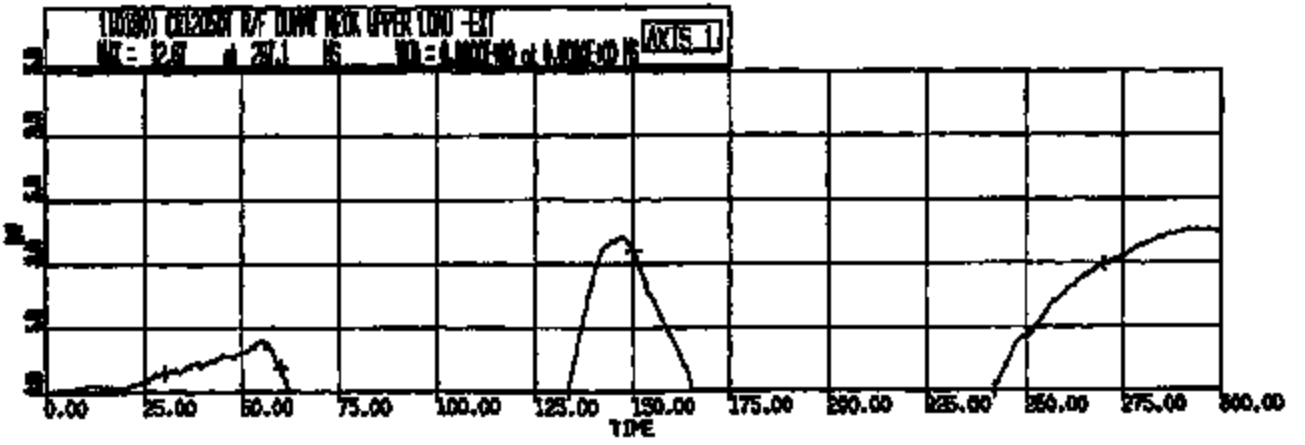
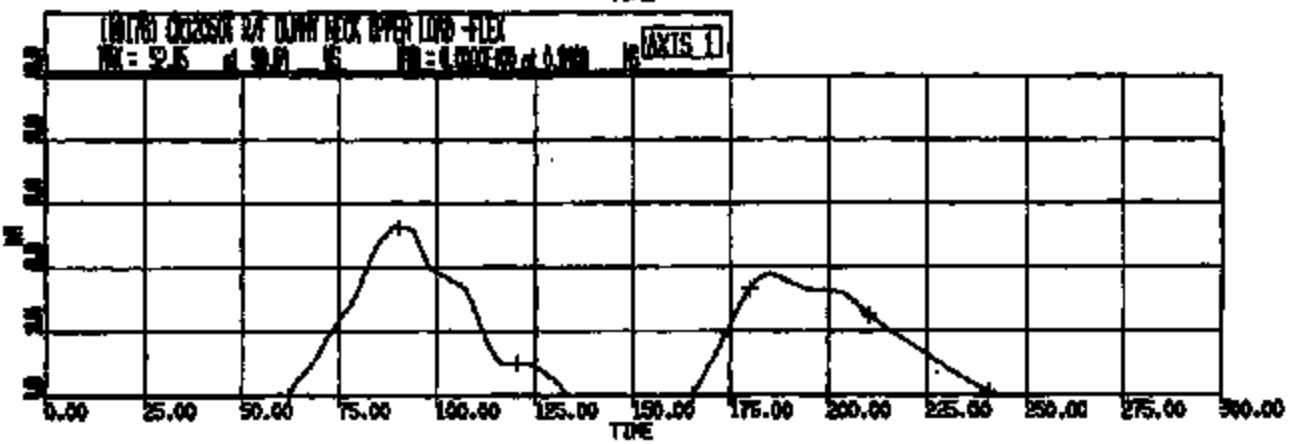
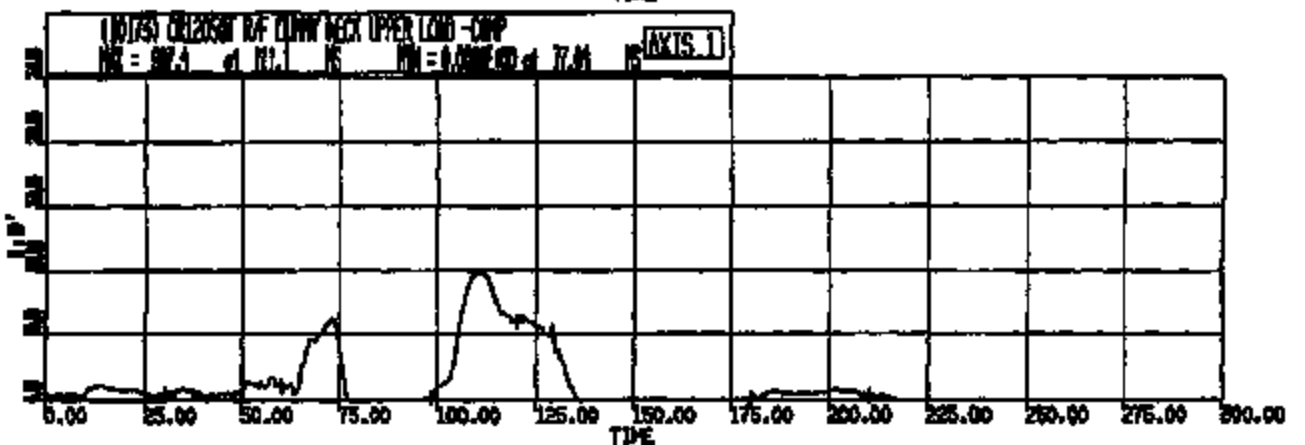
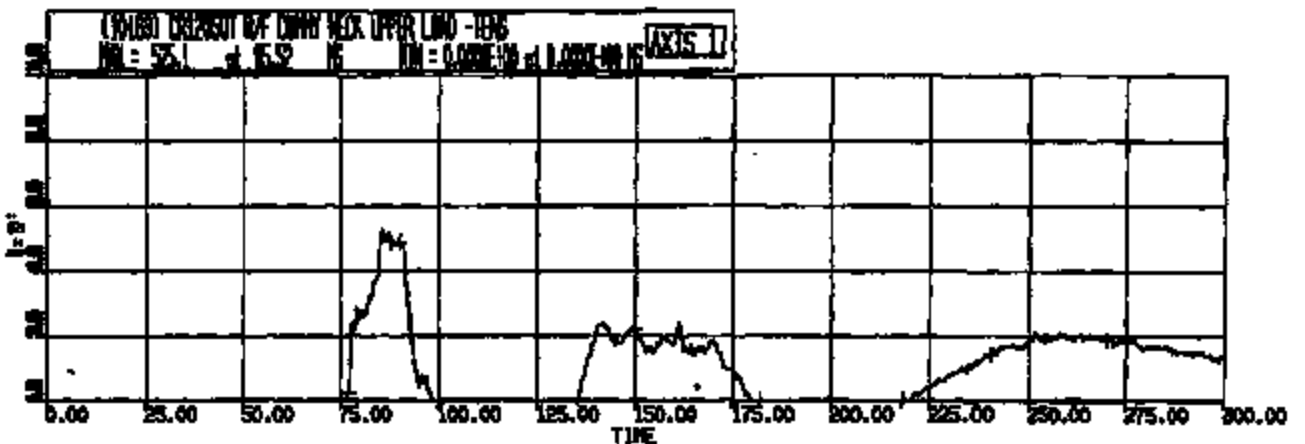




F. 38208 NIJ NECK INJURY CRITERIA (A NORMALIZED)  
 CR: R1 18050 TO: TC 1776 DATE: 001022 13:58:18  
 BOTH X DUMMY IN POSITION TEST  
 CR12050T - L/F DUMMY\_NECK\_UPPER\_LOAD\_FZ\_500N [CORR]  
 CR12050T - L/F DUMMY\_NECK\_UPPER\_LOAD\_MY\_500N [CORR]



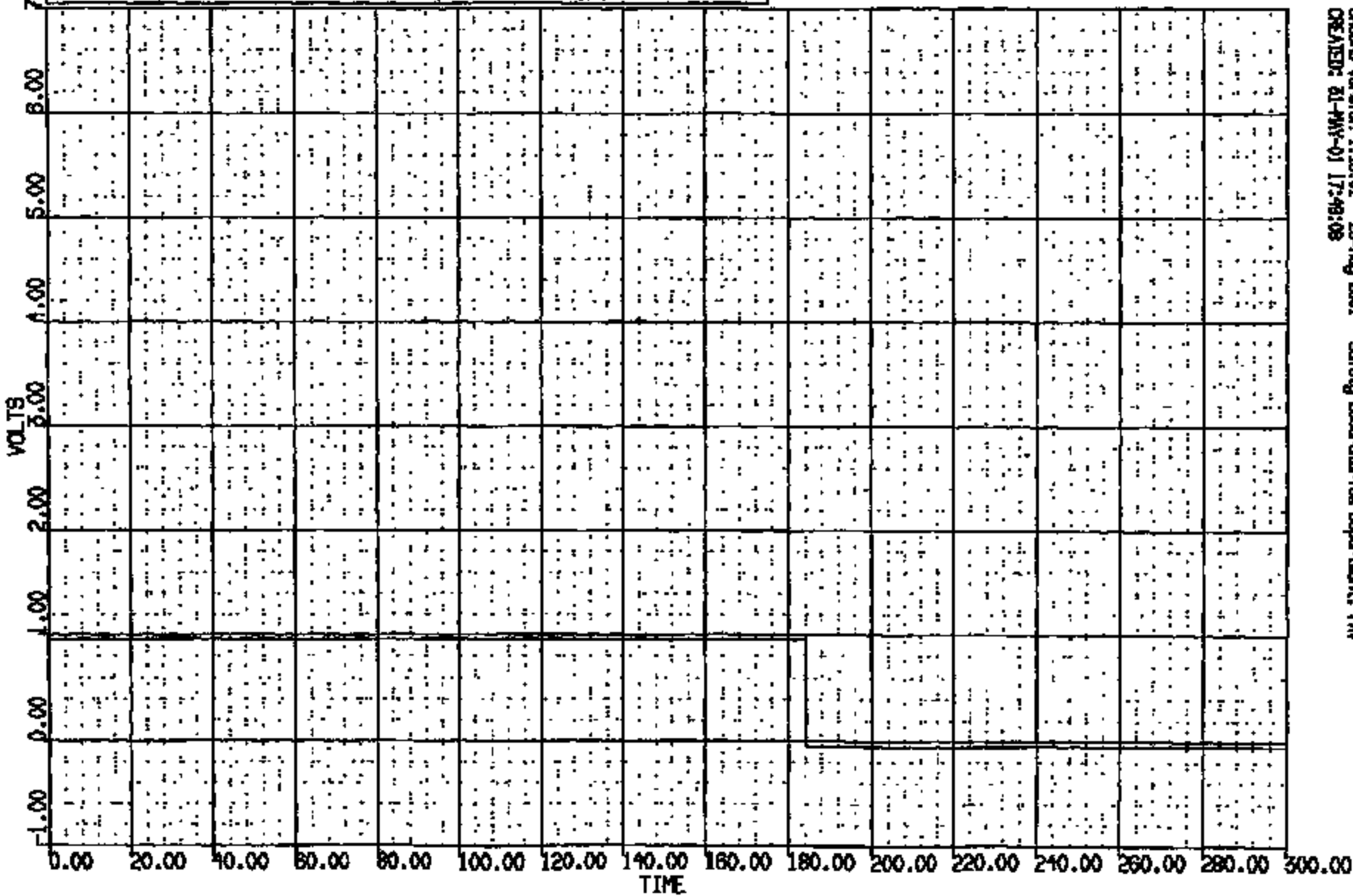
F 56208 NIJ NECK INJURY CRITERIA COMPONENT PLOTS)  
G) R: 12080 T0: 1776 DATE: 00102 15:58:15  
BOTH X DUMMY IN POSITION TEST  
CR12080T-R/F - DUMMY-NECK-UPPER-LOAD  
CR12080T-L/R - DUMMY-NECK-UPPER-LOAD-MY-BOON-SCORR





R: 12050 TO: TC1775 DATE: 00102 18:58:18  
BUJO D188

(45) CR120501 ALTERNATE T-ZERO SW 400C  
MX = 0.9570 at -.762E-05 NS MIN = -.495E-04 at 184.3 NS **AXIS 1**



CRDS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 01-MAY-01 17:48:08

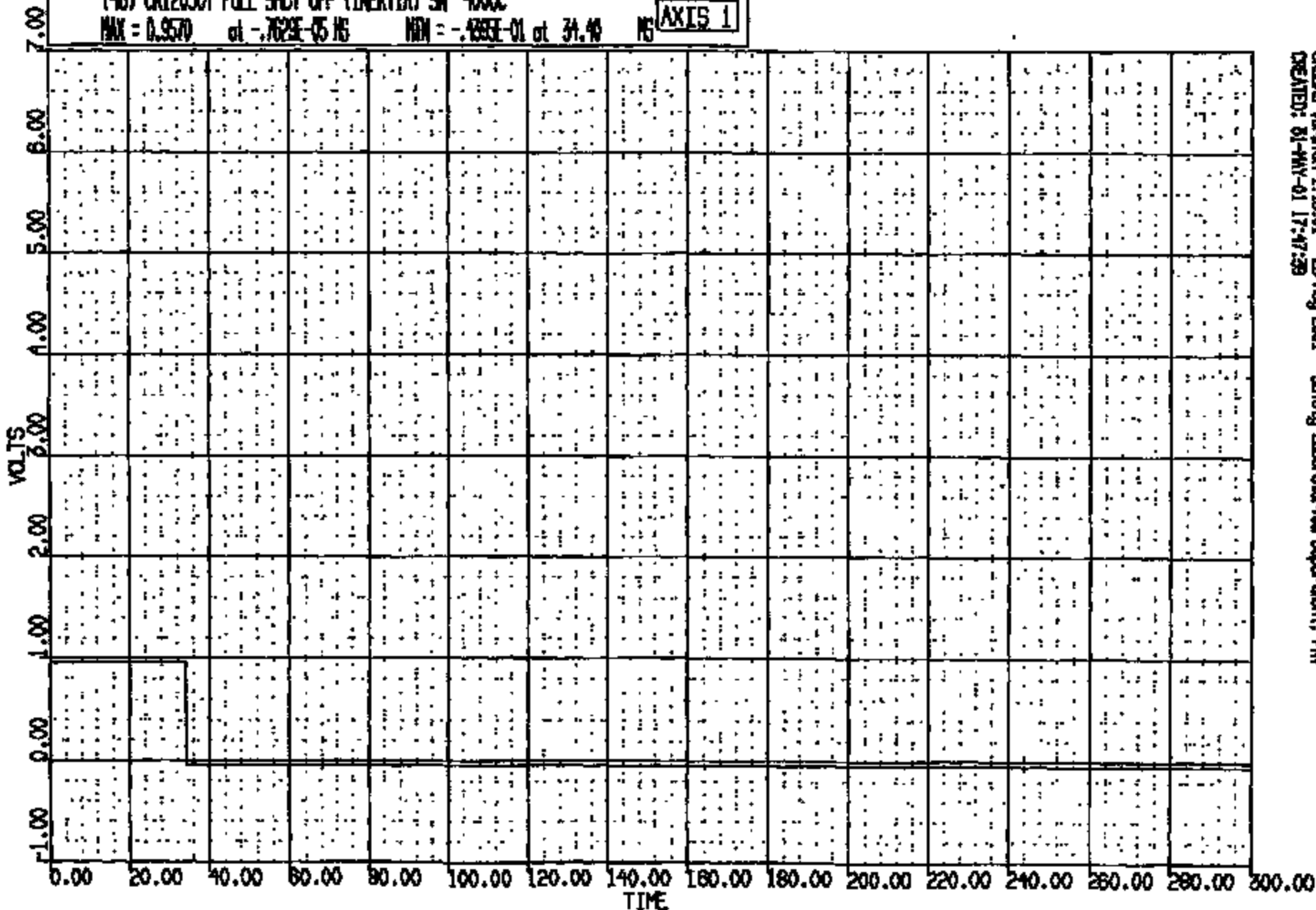
CRIS 0012050

01:18:00 TO: TC1775 DATE: 00102 3:58:18  
2010 D188

(46) CR120501 FUEL SHUT OFF (INERTIA) SN 4000

MAX = 0.9570 at -.762E-05 MS MIN = -.435E-01 at 34.40 MS

MS **AXIS 1**



CRDS Version 1.18.01 - 29-May-2001 Safety Laboratory Department, PAV  
CREATED: 01-MAY-01 17:47:28

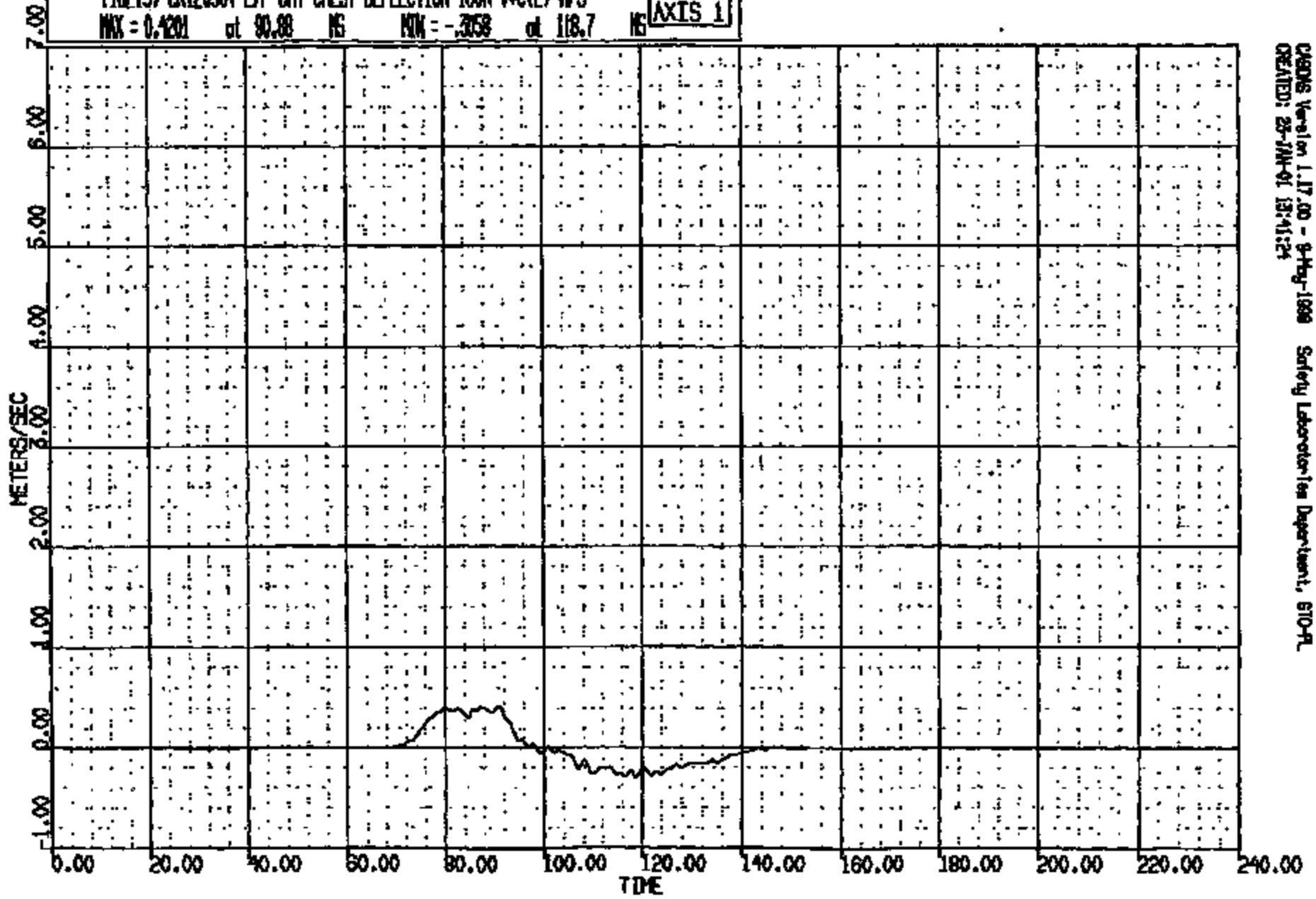
CRDS 0012050

012050 TC: TC1775 DATE: 00102 5:59:16

EXPERIMENT

(10215) CR12050T L/F OXY CHEST DEFLECTION 180N V% (E) W/S  
MAX = 0.4201 at 90.88 NS MIN = -.3058 at 118.7 NS

AXIS 1



CRAMS Version 1.17.00 - 9-May-1989 Safety Laboratory Department, 610-PL  
CREATED: 28-JAN-01 13:41:24

CRIS 0012050

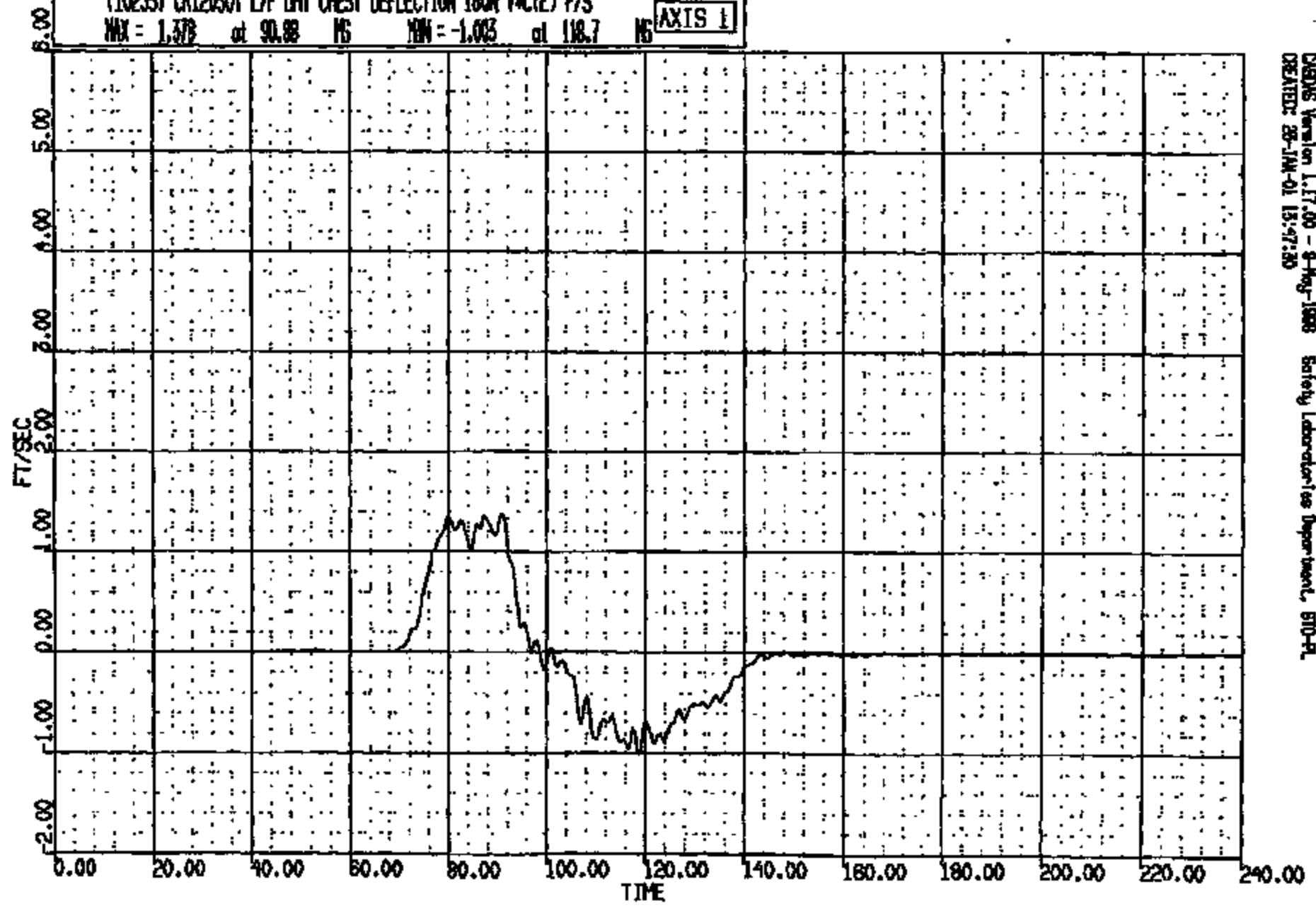
CASE: 12050 TO: TC1775 DATE: 00102 15:59:18  
RUCO D-188

EXPERIMENT

(10255) CR12050T L/F DRY CHEST DEFLECTION (800N VACIE) F/S

MAX = 1.378 at 90.88 MS MIN = -1.003 at 118.7 MS

AXIS 1



DAQS Version 1.17.00 - 9-May-1988 Safety Laboratories Department, B10-PL  
CREATED: 28-JAN-01 15:47:20

CRTS 0012050



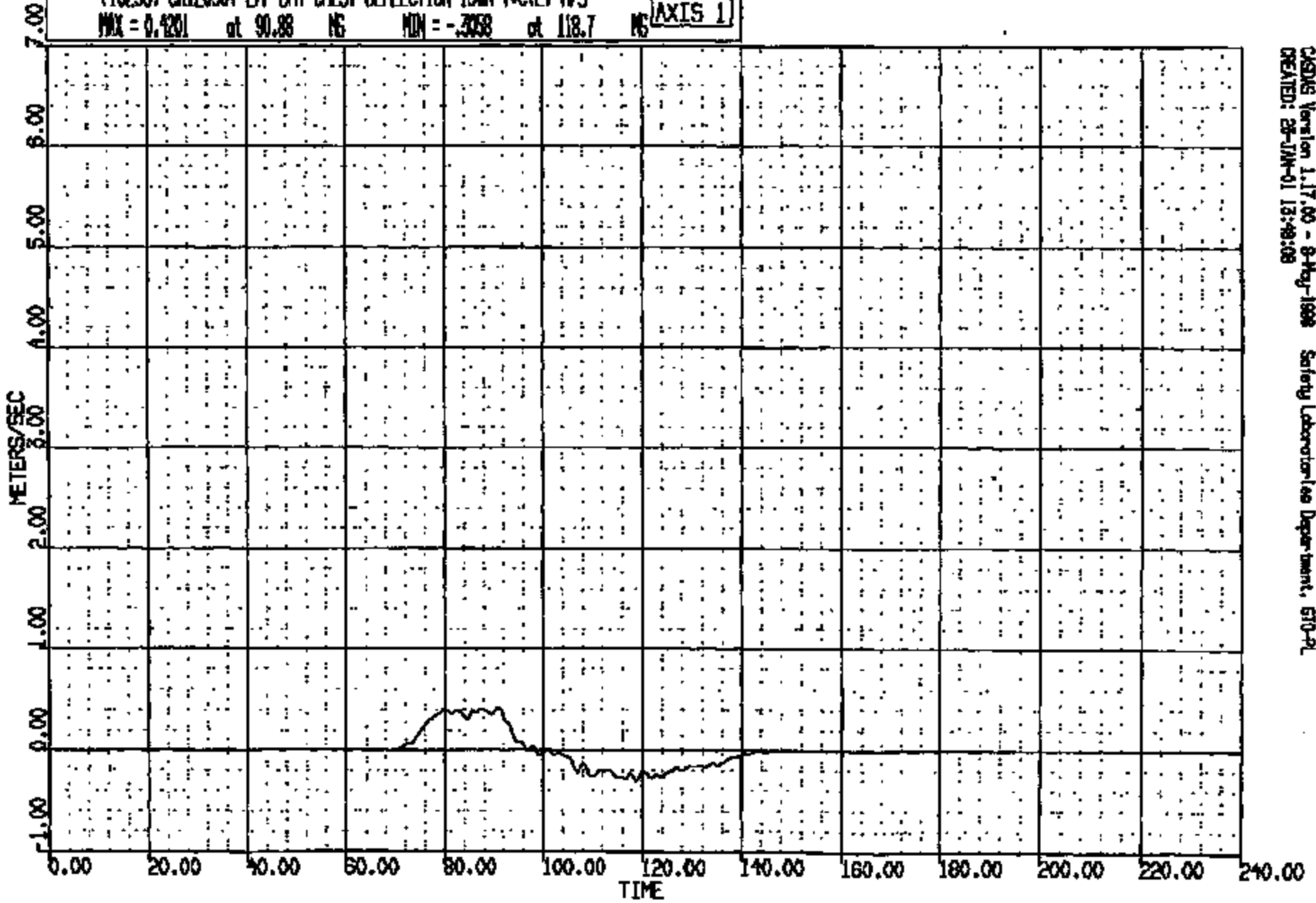
CARD: 12050 TO: TC1775 DATE: 00102 13:59:15  
RUCO D-188

EXPERIMENT

(10256) CR12050T L/F DRY CHEST DEFLECTION (80N V&C(E) N/S

MAX = 0.4201 at 90.88 MS MIN = -0.3058 at 118.7 MS

AXIS 1

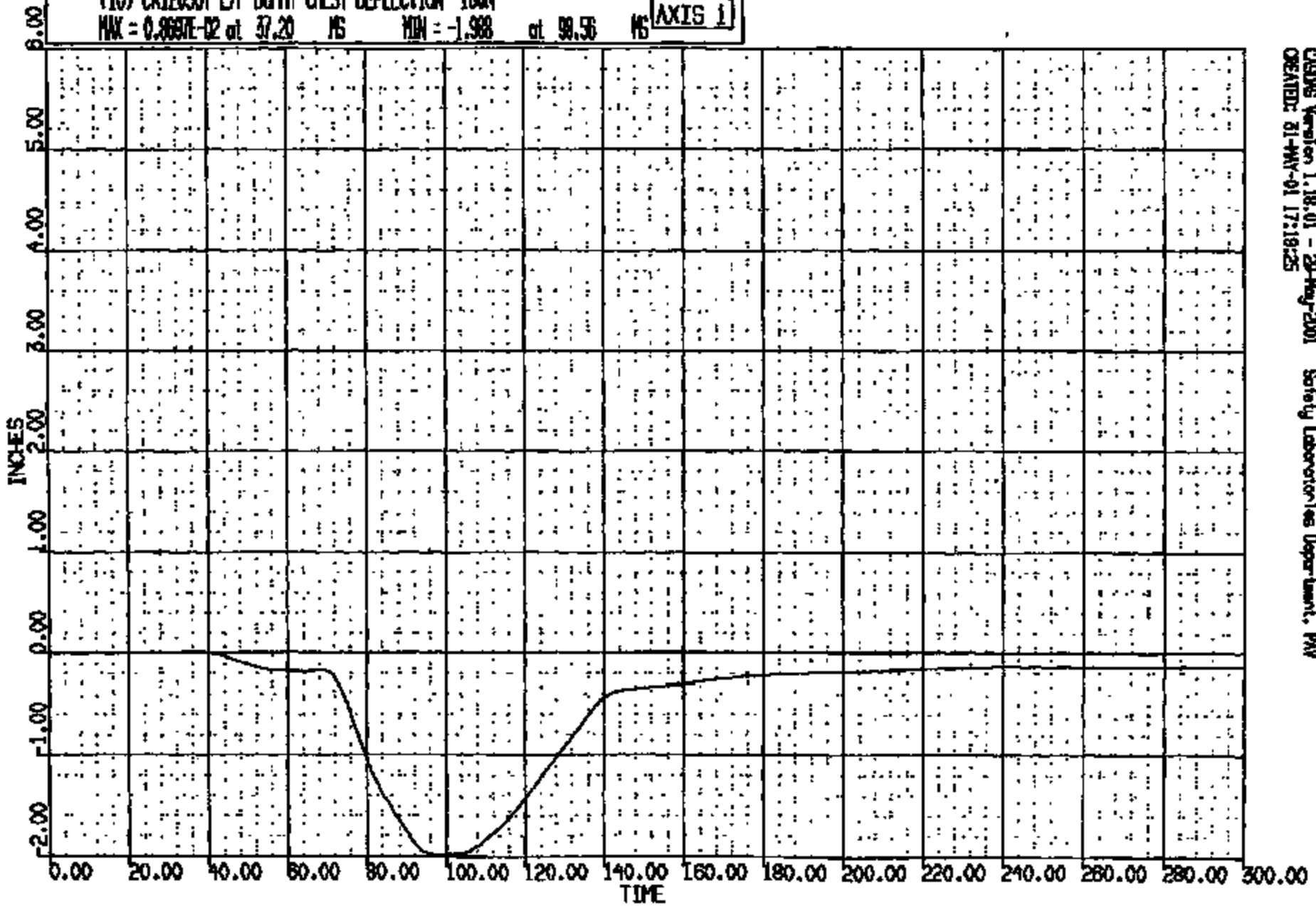


CRS015 Version 1.17.00 - 8-Aug-1998 Safety Laboratories Department, 610-9L  
CREATED: 28-JAN-01 13:49:08

CR12050

01 23 12050 TO: TC1775 DATE: 00102 5:59:16  
RUCO D188

(10) CR12050T L/F DUMMY CHEST DEFLECTION 100N  
MAX = 0.9697E-12 at 37.20 MS MIN = -1.968 at 99.56 MS **AXIS 1**

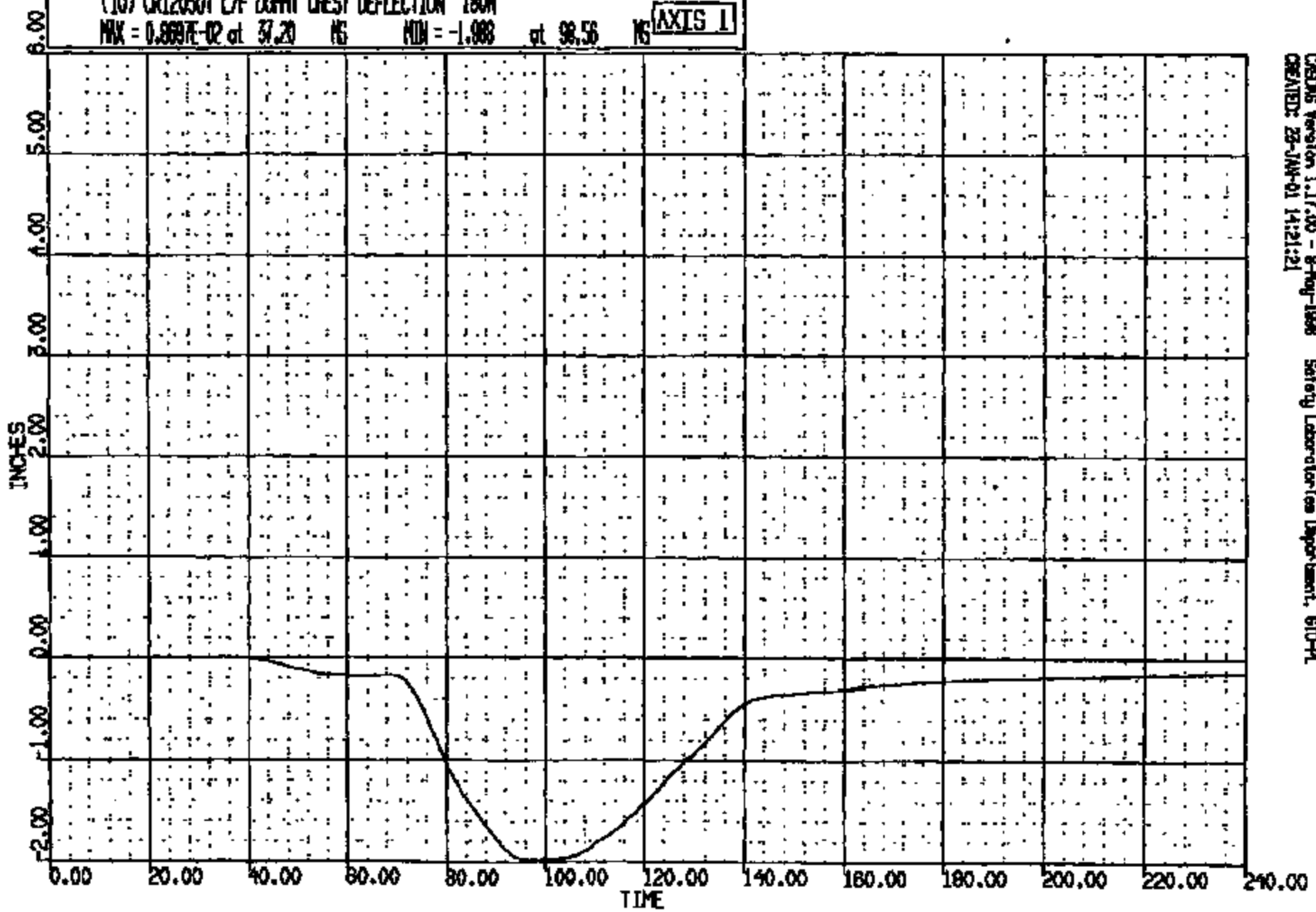


CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PMA  
CREATED: 01-MAY-01 17:19:25

CRSIS 0012050

CRS: 12050 TO: TC1775 DATE: 00102 3:59:18  
BUJO D-188

(10) CR120501 LAF DUMMY CHEST DEFLECTION 180N  
MAX = 0.9897E-02 at 37.20 MS MIN = -1.988 at 98.56 MS **AXIS 1**

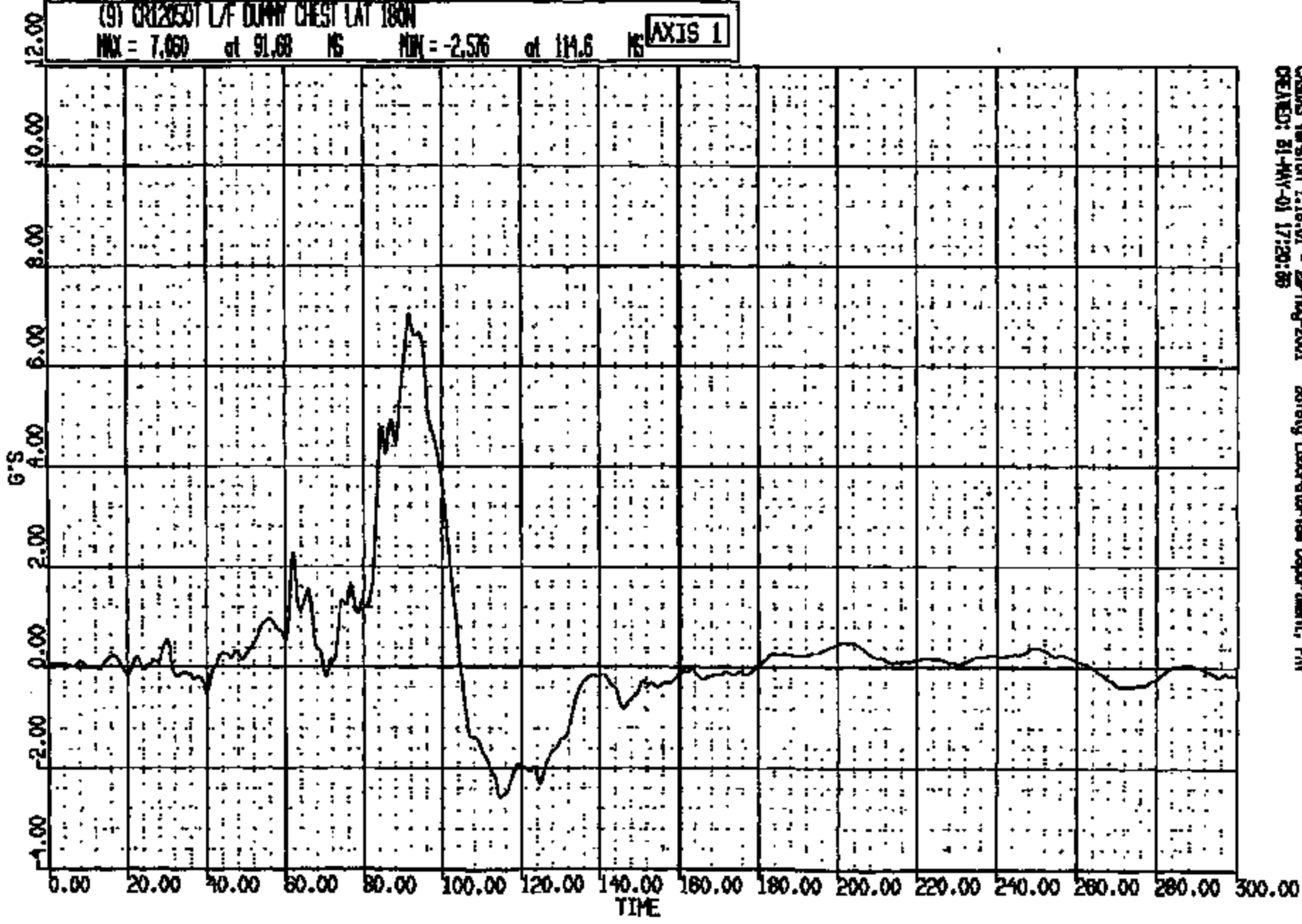


CRSIS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, 610-PA  
CREATED: 23-JAN-01 14:21:21

CRIS 0012050

CR: 12050 TO: TC1775 DATE: 00102 3:59:16  
R. O. D188

(9) CR12050 L/F DUMMY CHEST LAT 180N  
MAX = 7.050 at 91.68 MS MIN = -2.576 at 114.6 MS **AXIS 1**

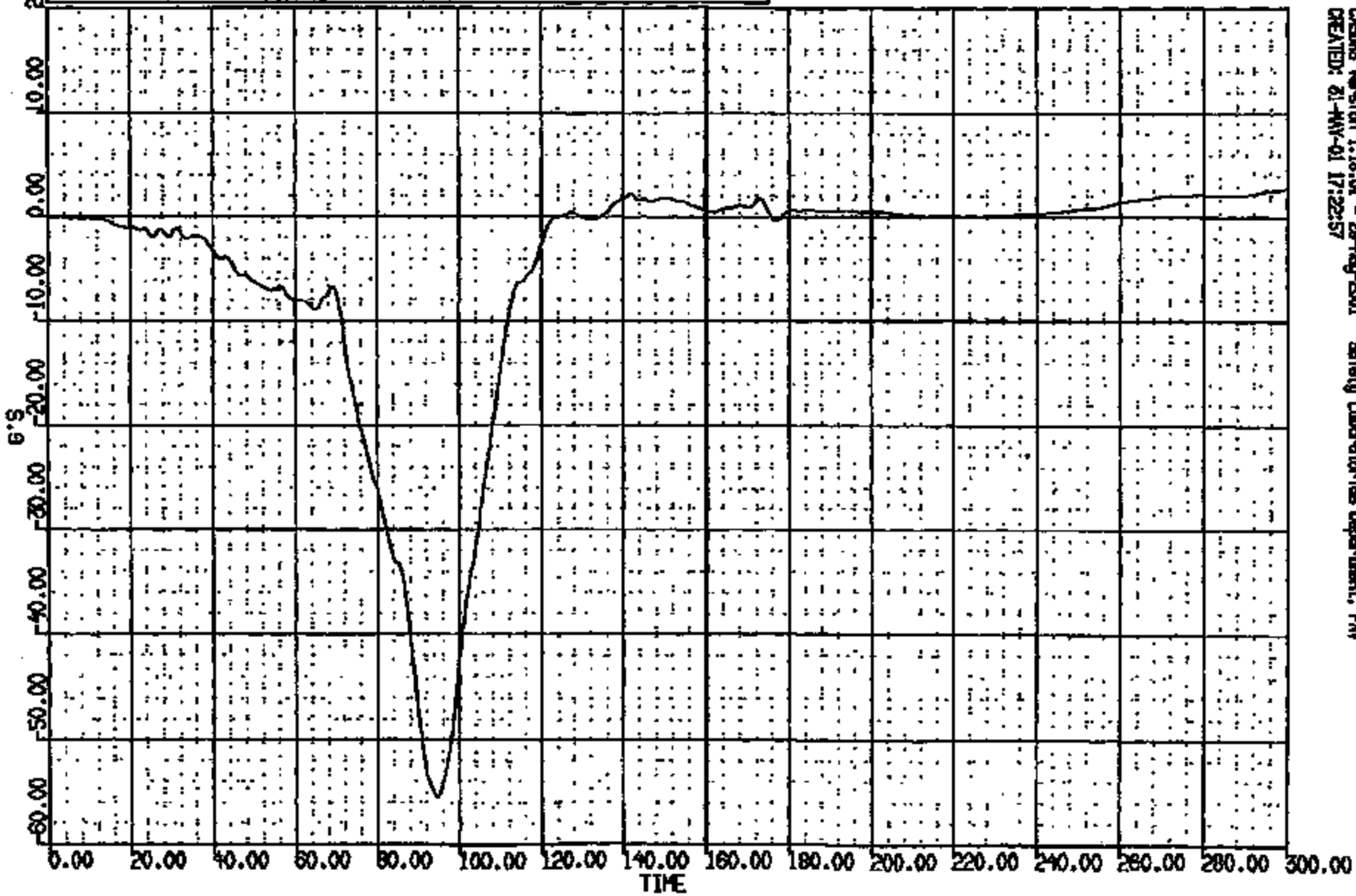


CASMS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PW  
CREATED: 81-MAY-01 17:20:55

CR12050

C R: 12050 TO: TC1775 DATE: 00102 13:58:18  
M. JO D188

(7) CRT20501 L/F DUMMY CHEST LONG 180W  
MAX = 2.774 at 300.0 HS MIN = -55.49 at 91.04 HS **AXIS 1**



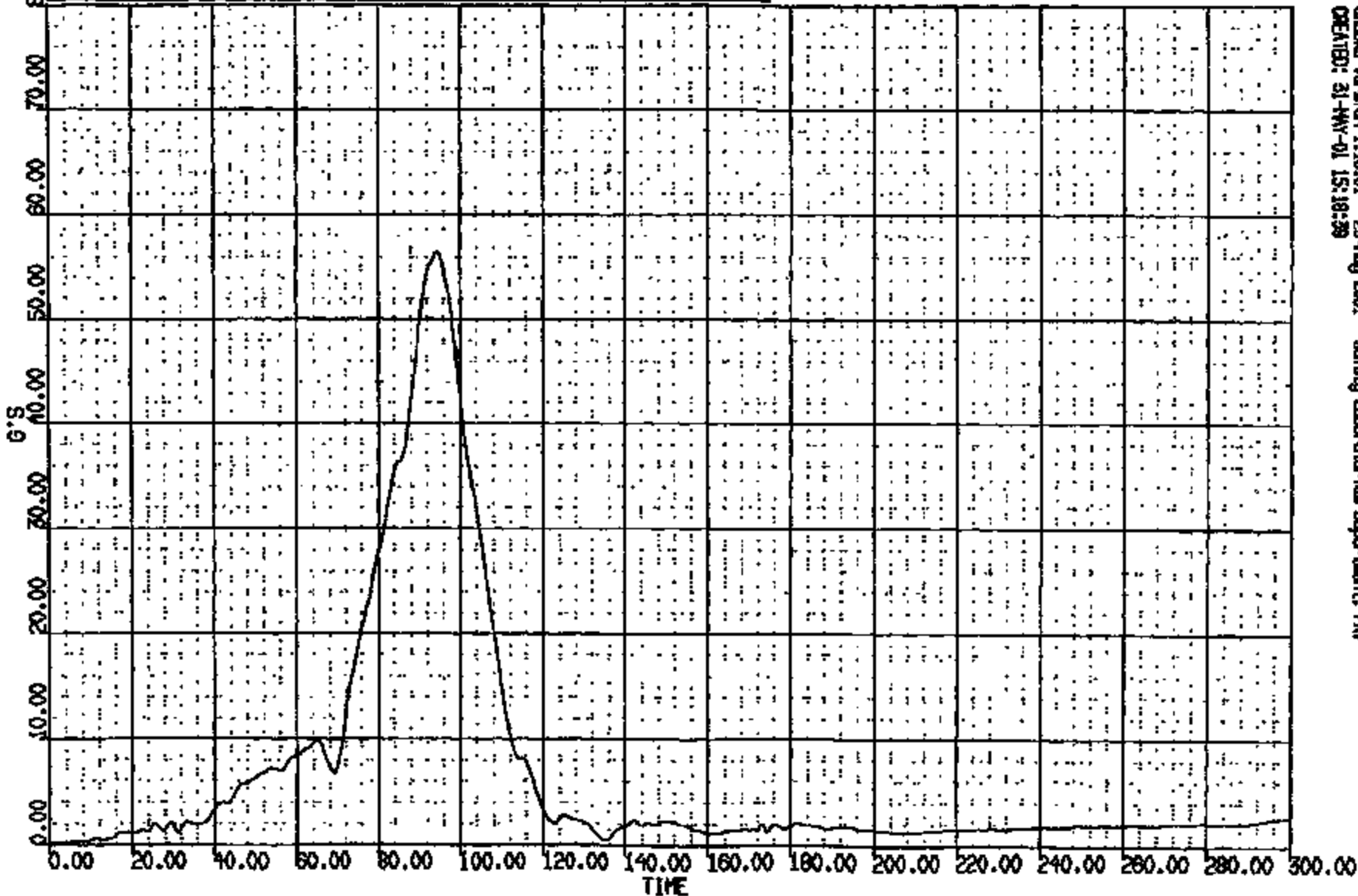
CASINS Version 1.18.01 - 28-Feb-2001 Safety Laboratory/ies Department, PW  
CREATED: 21-MAY-01 17:22:57

CRTS 0012050

NR: 12050 TO: TC1775 DATE: 00102 18:59:18  
NO D188  
DUMDUR = 55.275 Duration time = 2.9991

(10011) CRT2050Y LF DUMMY CHEST RES 180N  
MAX = 55.42 at 91.32 MS MIN = 0.965E-01 at 0.000E+00 MS

AXIS 1

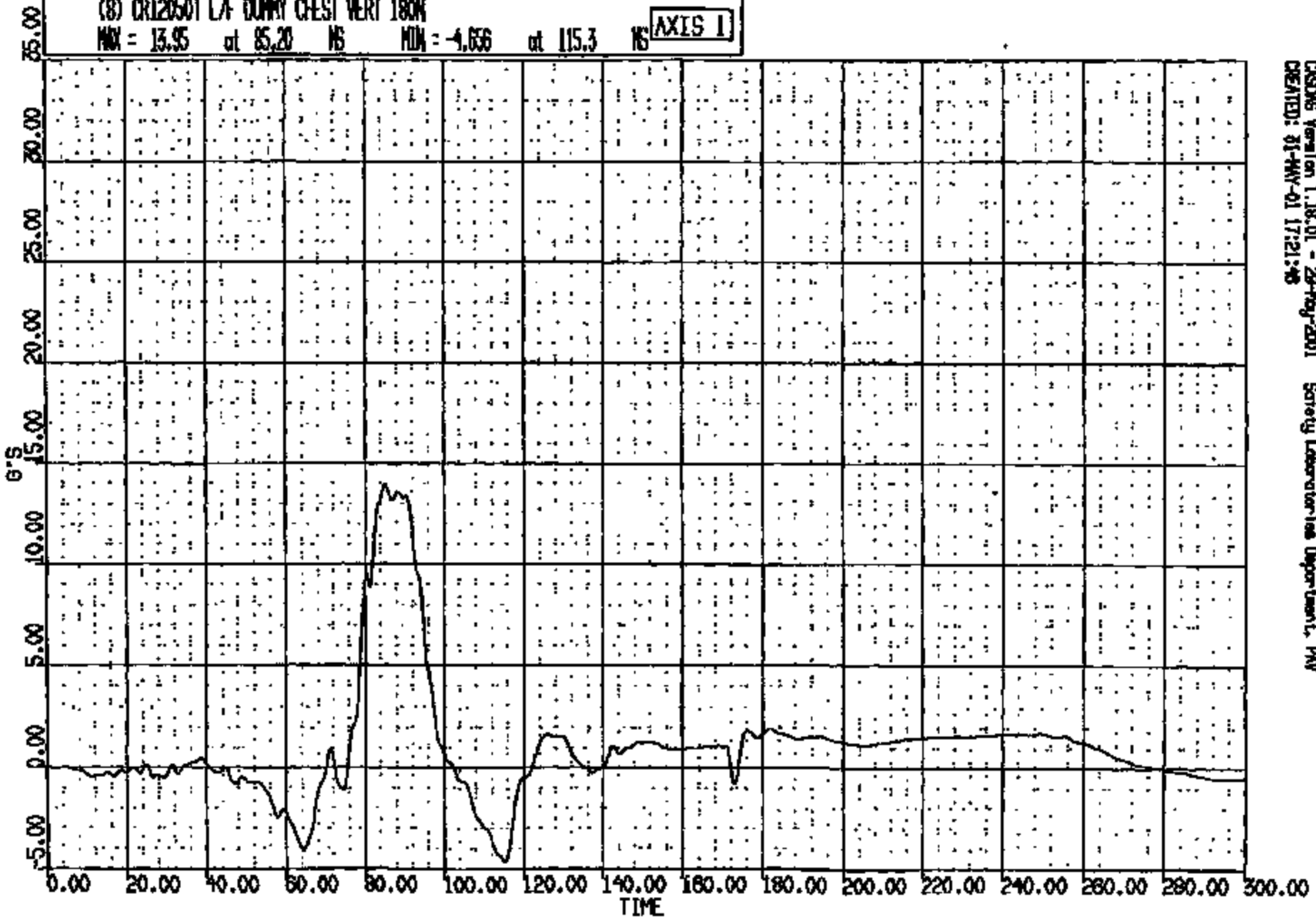


CSDAS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 31-MAY-01 15:18:39

CRTS 0012050

CR: 12050 TO: TC1775 DATE: 00102 13:59:16  
BU JO D180

(8) CR12050T L/F DUMMY CHEST VERT 180K  
MAX = 13.95 at 85.20 MS MIN = -4.656 at 115.3 MS **AXIS 1**

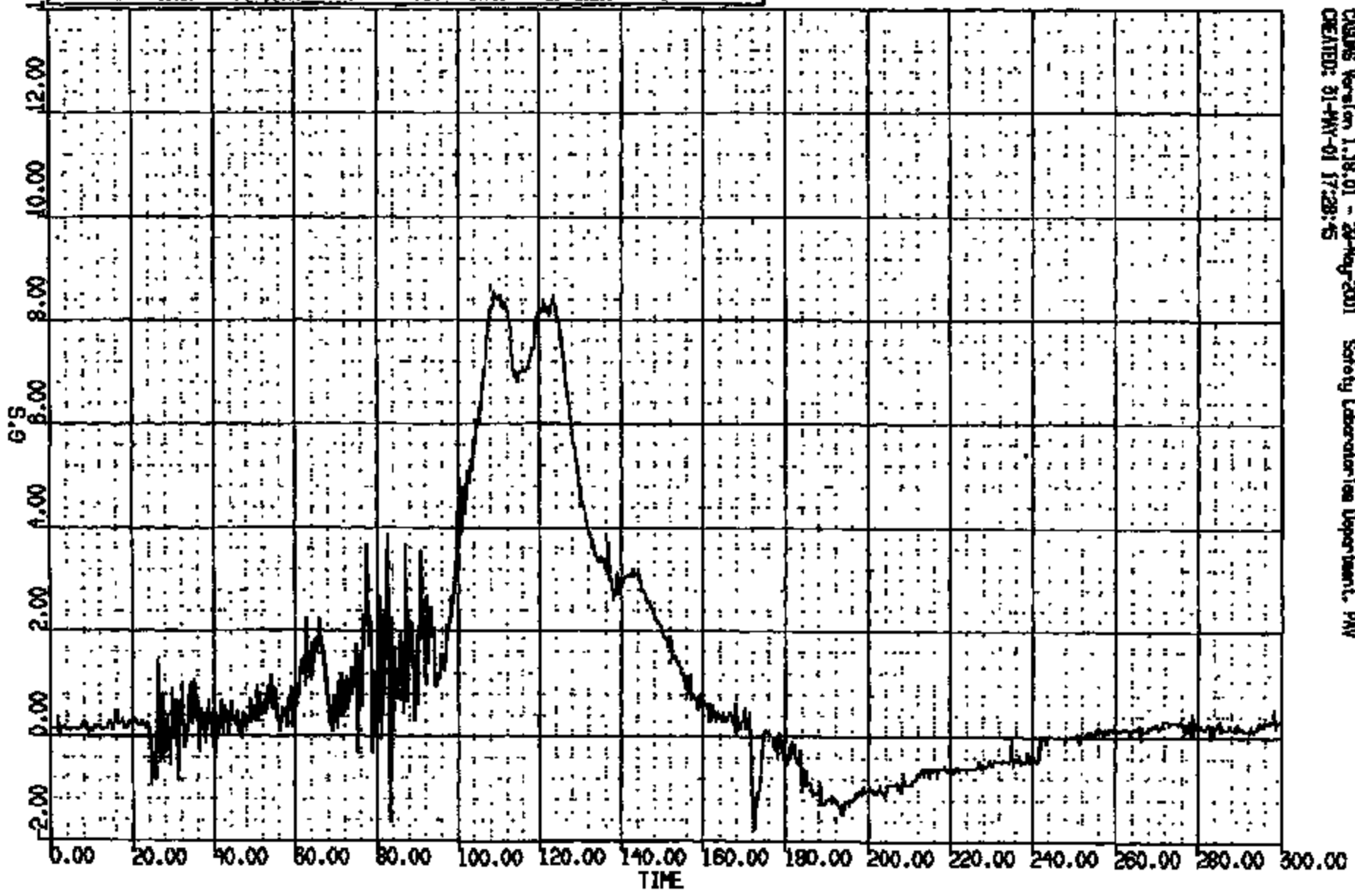


CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNV  
CREATED: 01-MAY-01 17:21:48

CRIS 0012050

TC: 12080 TO: TC1775 DATE: 00102 5:59:18  
26.70 D188

(3) CR120501 L/F DUMMY HEAD C.G. LAT 1000N  
MAX = 8.556 at 109.0 MS MIN = -1.796 at 172.3 MS **AXIS 1**



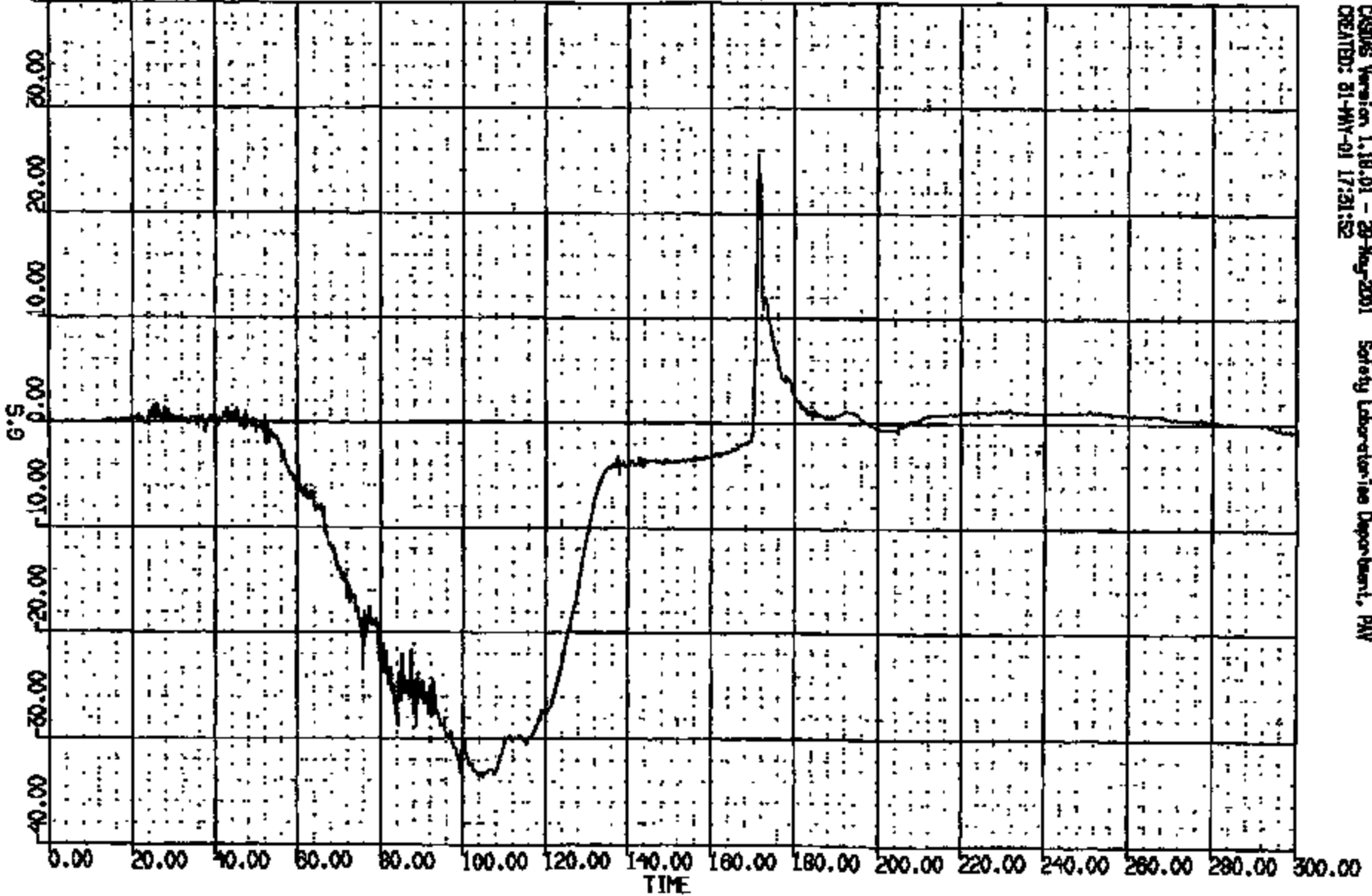
CRAMS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNV  
CREATED: 31-MAY-01 17:28:45

CRTS 0012050



CRS: 12050 TO: TC1775 DATE: 001021 3:59:16  
PL: 0 D185

(1) CR12050T L/F DUMP HEAD C.G. LONG 1000N  
MAX = 25.46 at 171.3 HS MIN = -38.63 at 104.9 HS **AXIS 1**

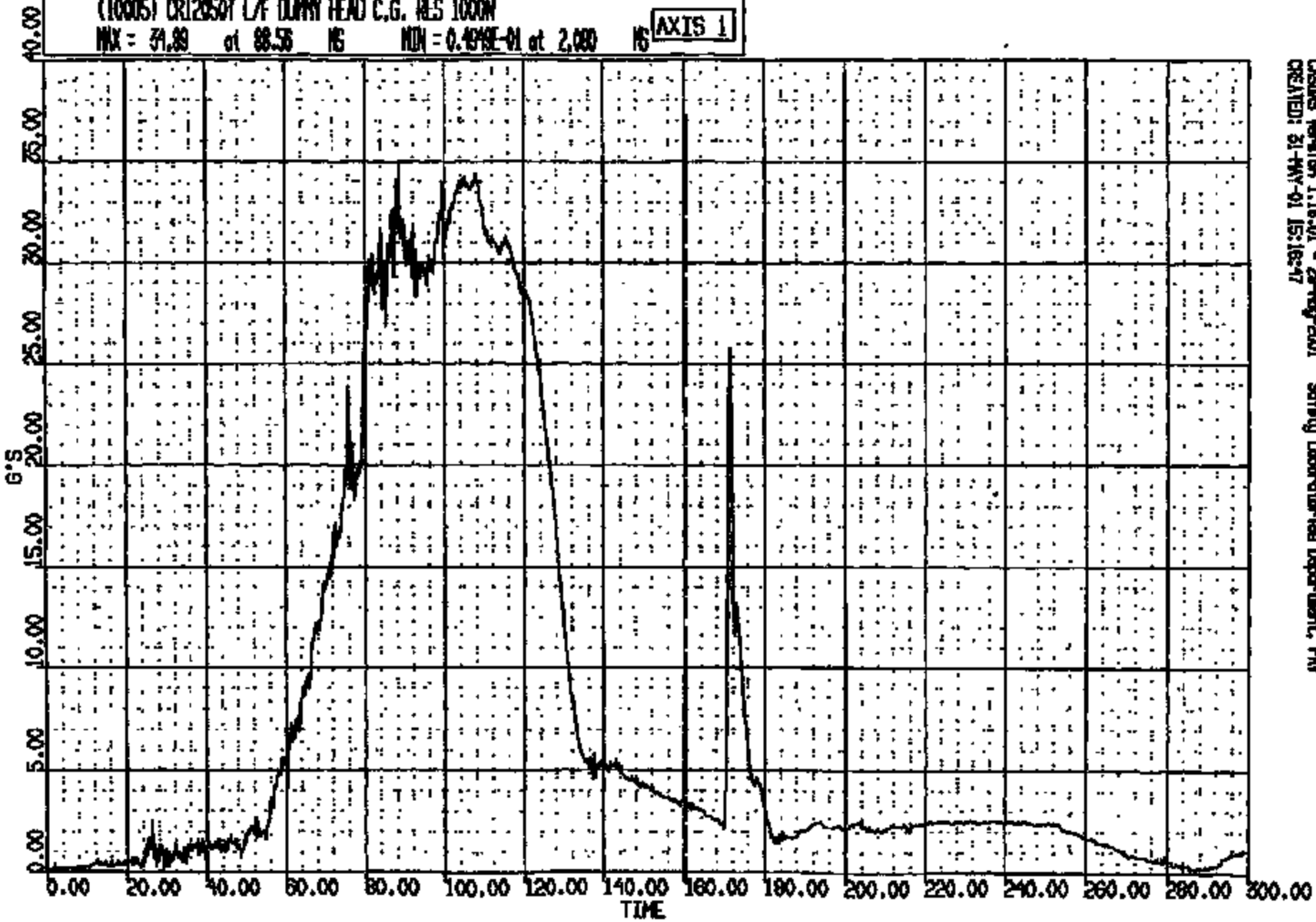


CRSUS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAV  
CREATED: 01-MAY-01 17:31:52

CRIS 0012050

CR: 12080 TD: TC1775 DATE: 00102 15:58:18  
 IIR: 0 D188  
 IIR: 288. DUR: 240.0 T1/T2: 74.1 // 128.  
 IIR: 188. DUR: 88.0 T1/T2: 81.7 // 118.  
 IIR: 81. DUR: 18.0 T1/T2: 88.0 // 113.

(10005) CR120507 L/F DUNNY HEAD C.G. RES 1000N  
 MAX = 31.89 at 88.58 NS MIN = 0.4349E-01 at 2.000 NS **AXIS 1**

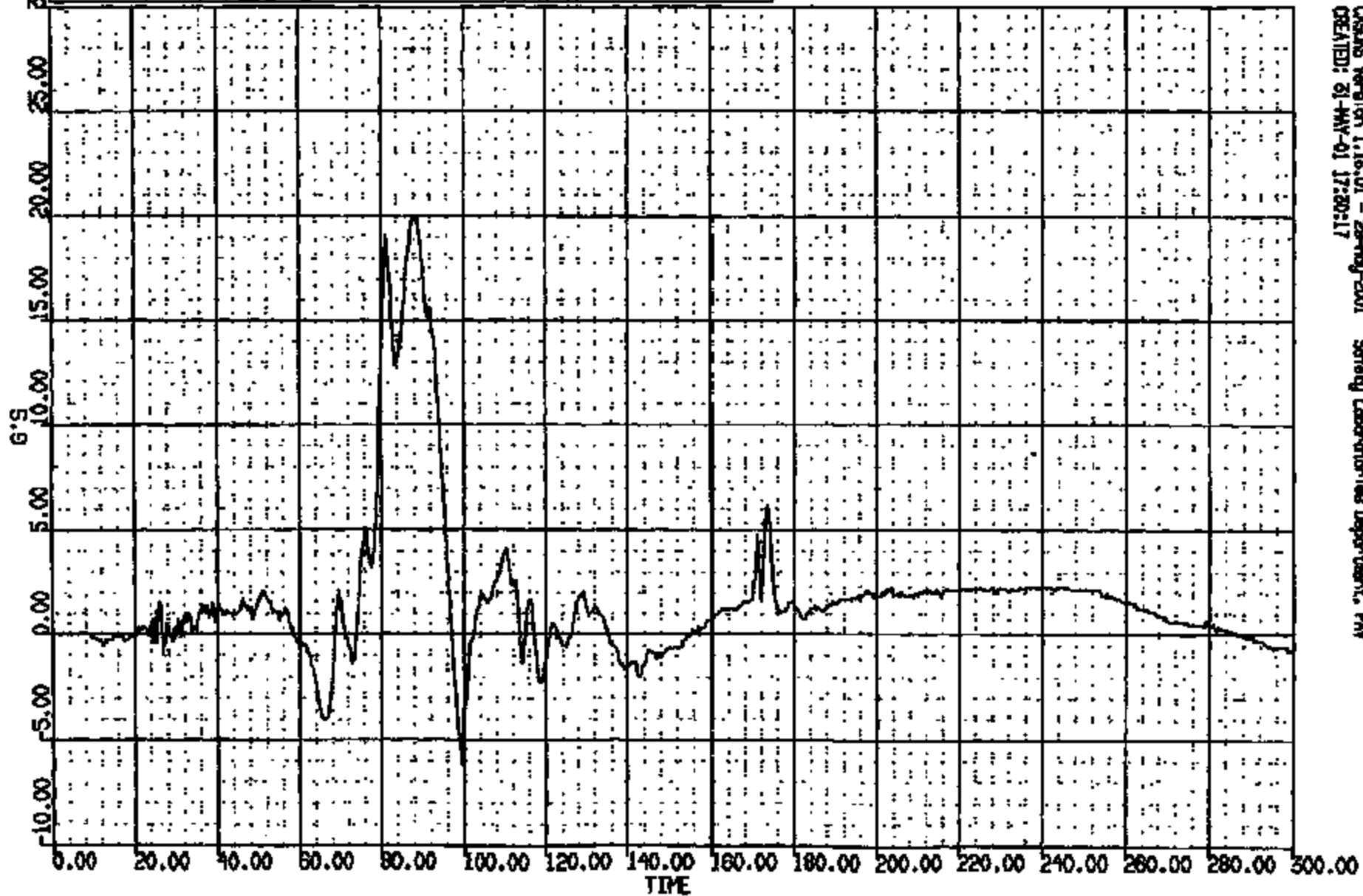


CASMB Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PW  
 CREATED: 31-MAY-01 15:18:47

CRTS 0012050

RUN: 12050 TO: TC1775 DATE: 00102 13:59:18  
BUJO 0188

(2) CR12050T LAF DUMMY HEAD C.G. VERT 1000N  
MAX = 20.06 at 88.88 NS MIN = -6.210 at 99.52 NS **AXIS 1**



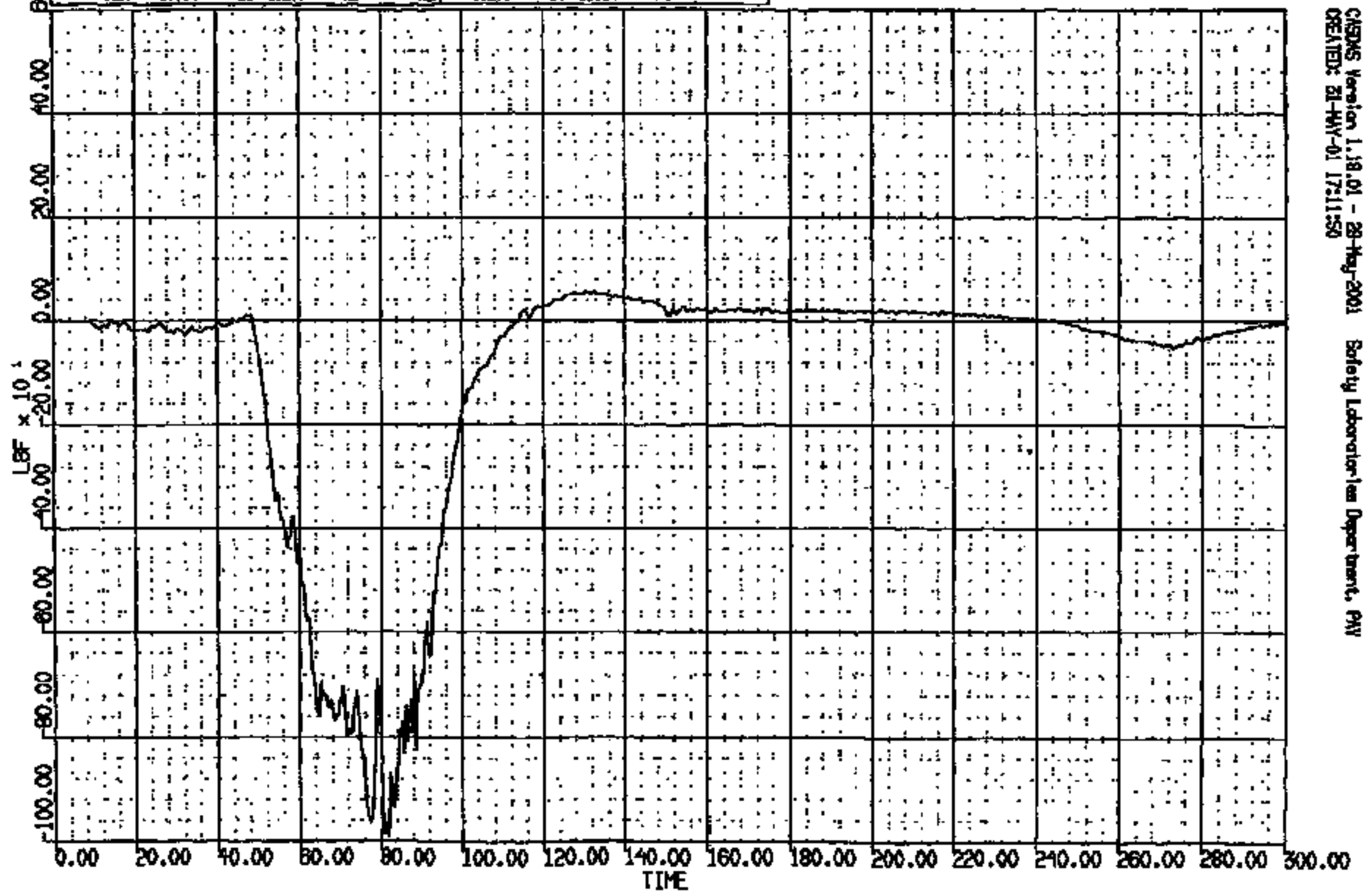
CASYS Version 1.16.01 - 29-May-2001 Safety Laboratories Department, PHV  
CREATED: 01-MAY-01 17:20:17

CRIS 0012050

CRTS: 12050 TO: TC1775 DATE: 001021 13:59:18  
WJJO D188

(17) CR12050T L/F DUMMY LATERO LOAD FZ 600N

MAX = 57.94 at 152.7 MS MIN = -92.1 at 81.94 MS **AXIS 1**



CHROMS Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PAW  
CREATED: 21-MAY-01 17:11:50

CRTS 0012050

CRIS: 12050 TO: TC1775 DATE: 001021 3:59:18  
RCVO D-188

(17) CR120501 L/F DUMMY L/EMUR LOAD FZ 600N  
MAX = 57.94 at 132.7 MS MIN = -92.1 at 81.91 MS **AXIS 1**

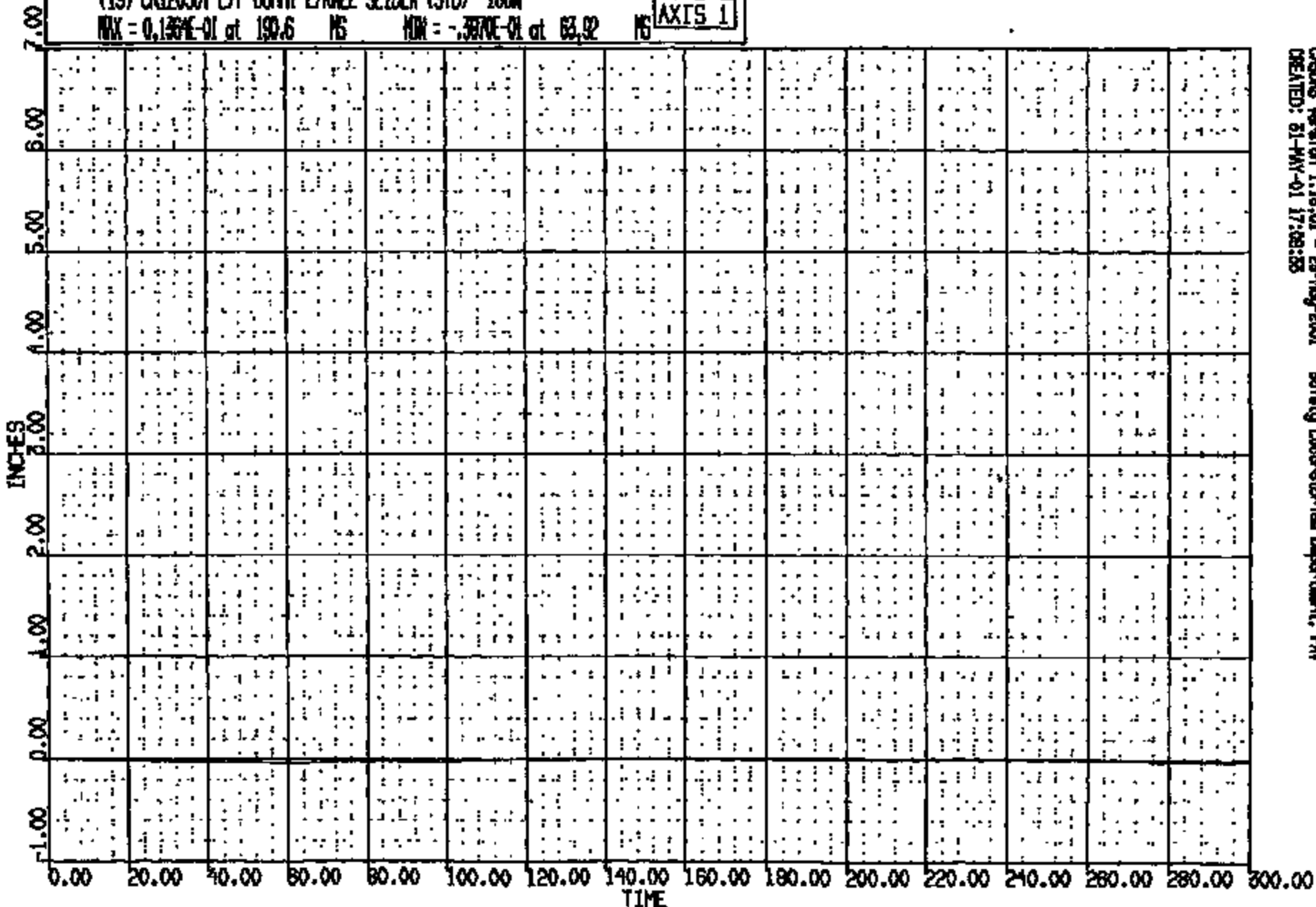


CRISIS Version 1.17.00 - 8-May-1999 Safety Laboratory/aw Department. 6/10/91  
CREATED: 25-JUN-01 14:18:00

CRIS 0012050

CF 12 12080 TO: TC1775 DATE: 00102E 3:59:10  
20.0 D188

(19) CR120501 L/F DUMMY L/AMEE SLIDER (STD) 180N  
MAX = 0.136E-01 at 190.6 MS MIN = -.397E-01 at 63.92 MS **AXIS 1**



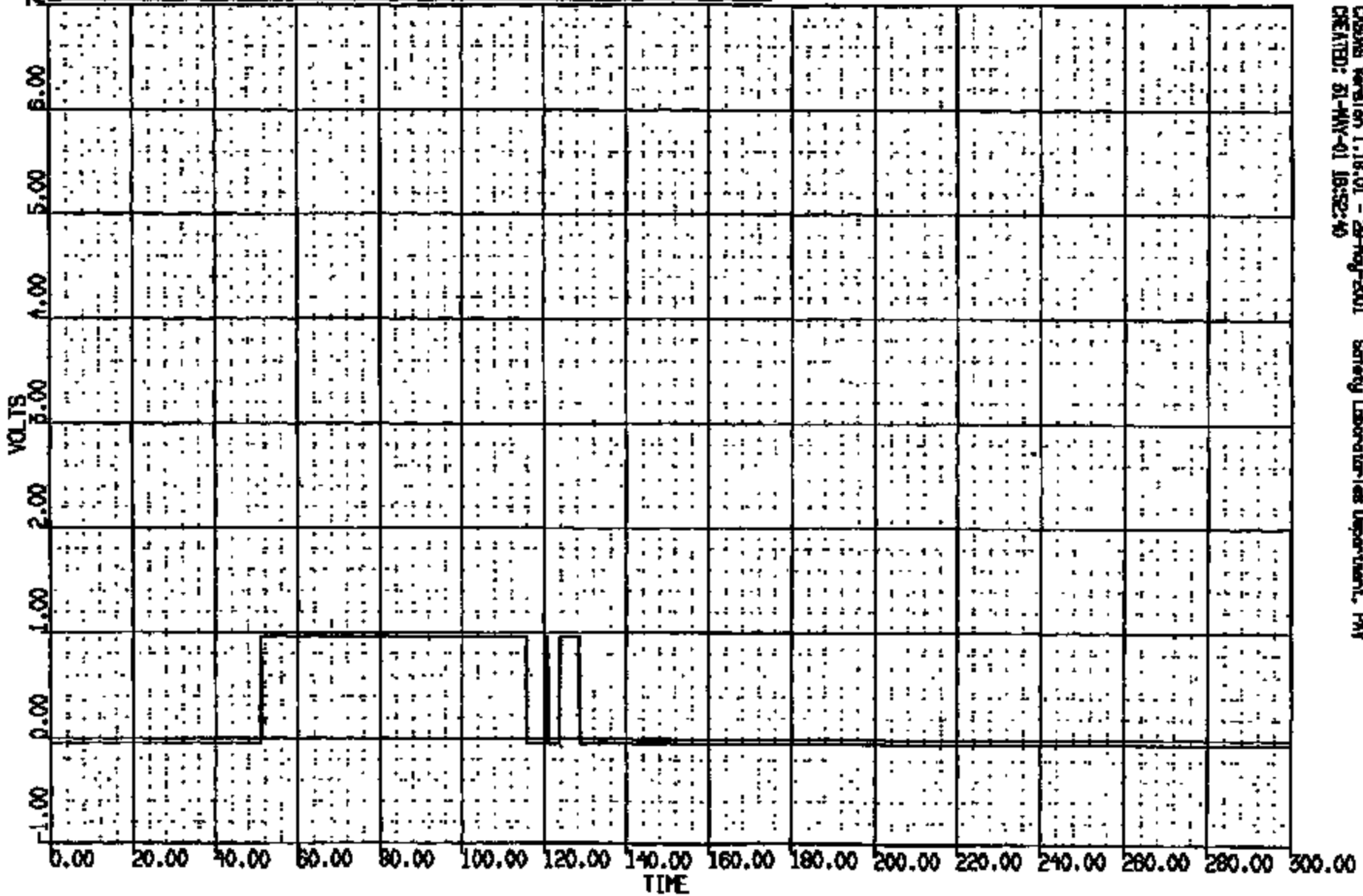
CRS01S Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PWR  
CREATED: 01-MAY-01 17:09:05

CRIS 0012050

C R: 12050 TO: TC1775 DATE: 00102 15:59:15  
20.00 DISB

(41) CR12050T L/F DUMMY LANCE SW 4000C  
MAX = 0.9570 at 52.10 NS MIN = -.4805E-01 at -.7829E-05 NS

AXIS 1



CRS018 Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 01-MAY-01 16:52:40

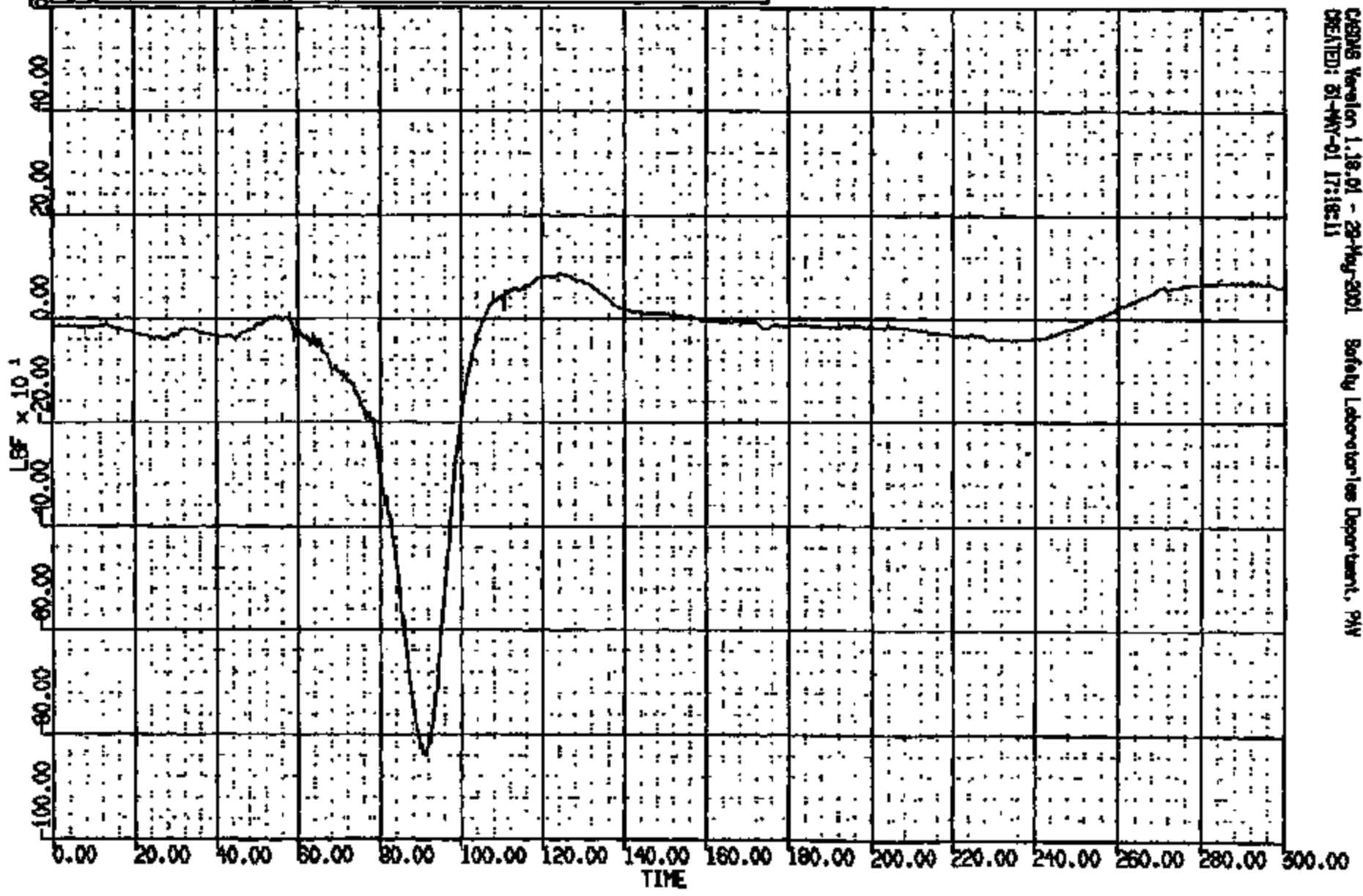
CR1S 0012050

CRTS: 12050 TO: TC1775 DATE: 00102 13:59:18  
2000 DISB

(11) CRTS00T L/F DUFFY LUMBAR SPINE LOAD FX 100KN

MAX = 88.86 at 121.3 HS MIN = -91.1 at 81.20 HS

AXIS J



CRS08 Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PNY  
CREATED: 01-MAY-01 17:18:11

CRTS 0012050

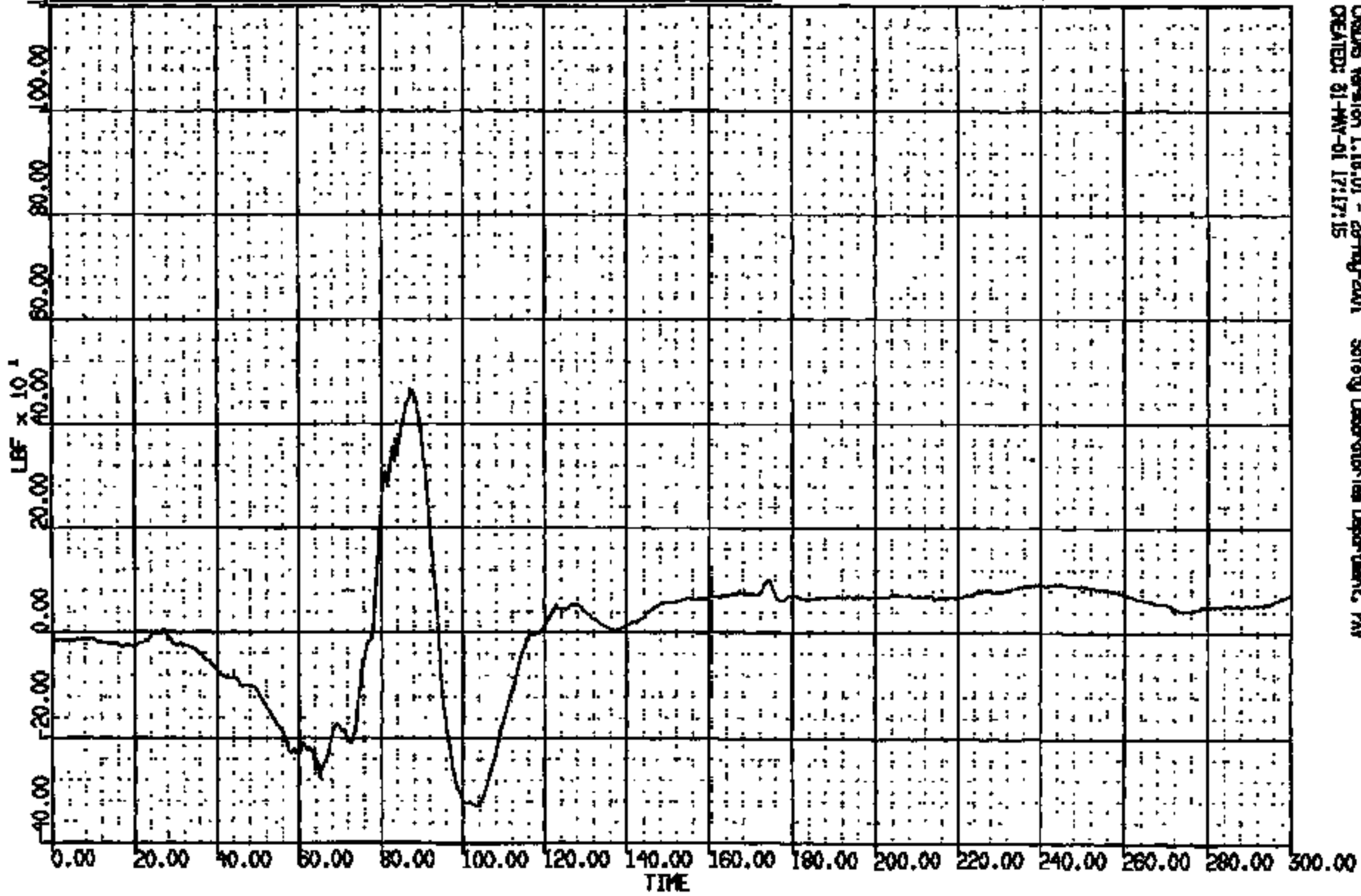


CR: 12050 TO: TC1775 DATE: 00102 3:59:18  
NO. 70 D188

(12) CR120501 L/F DUMMY LUMBAR SPINE LOAD FZ 1000N

MAX = 45.3 at 87.28 MS MIN = -329.4 at 103.4 MS

AXIS 1



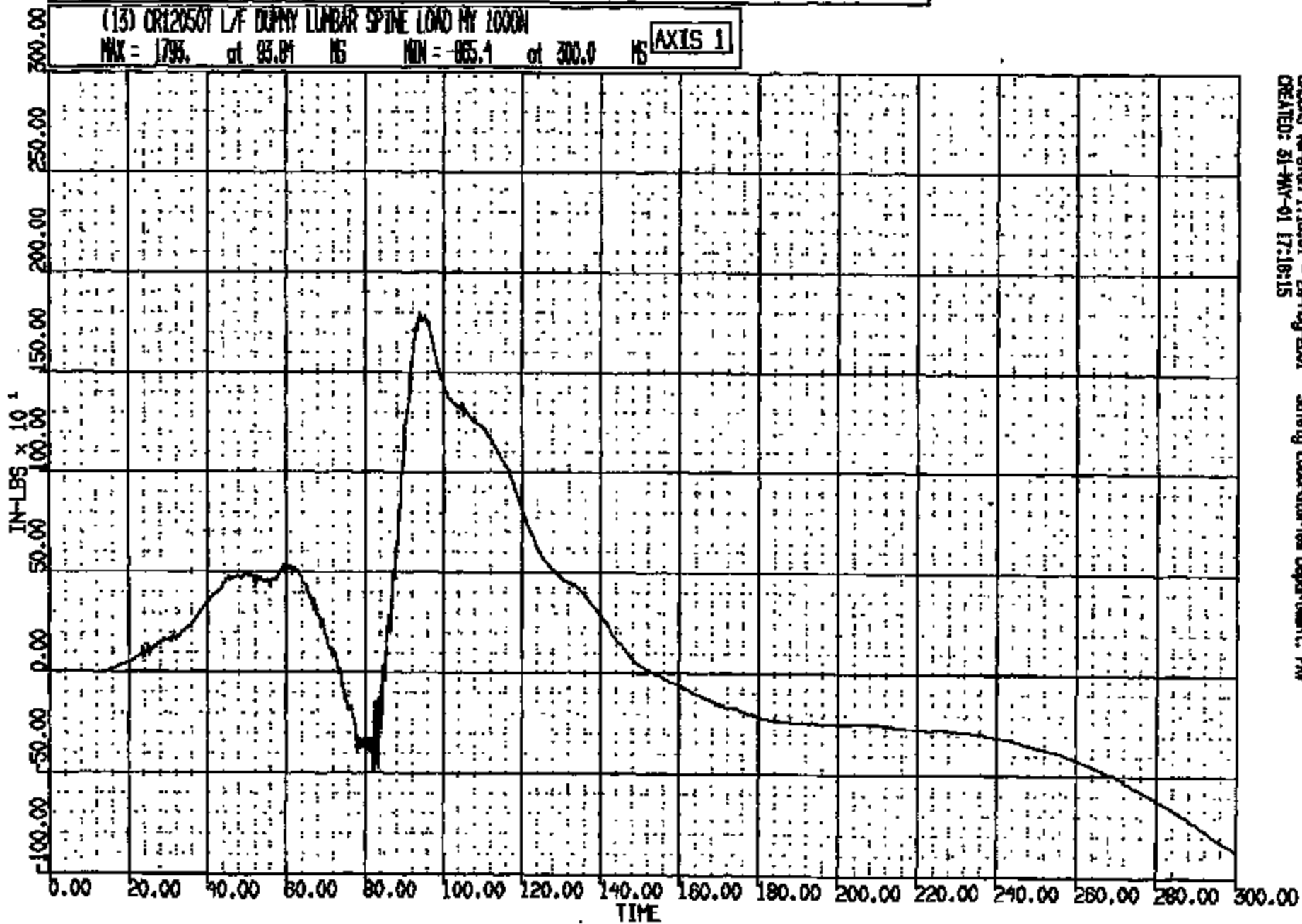
CRSWS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 31-MAY-01 17:17:15

CRIS 0012050

CRITS: 0012050 TO: YC1775 DATE: 00102 3:59:15  
2070 D188

(13) CR120507 L/F DUMMY LUMBAR SPINE LOAD BY 1000N

MAX = 1796. at 93.04 MS MIN = -85.4 at 300.0 MS **AXIS 1**



CR120507 Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 31-MAY-01 17:16:15

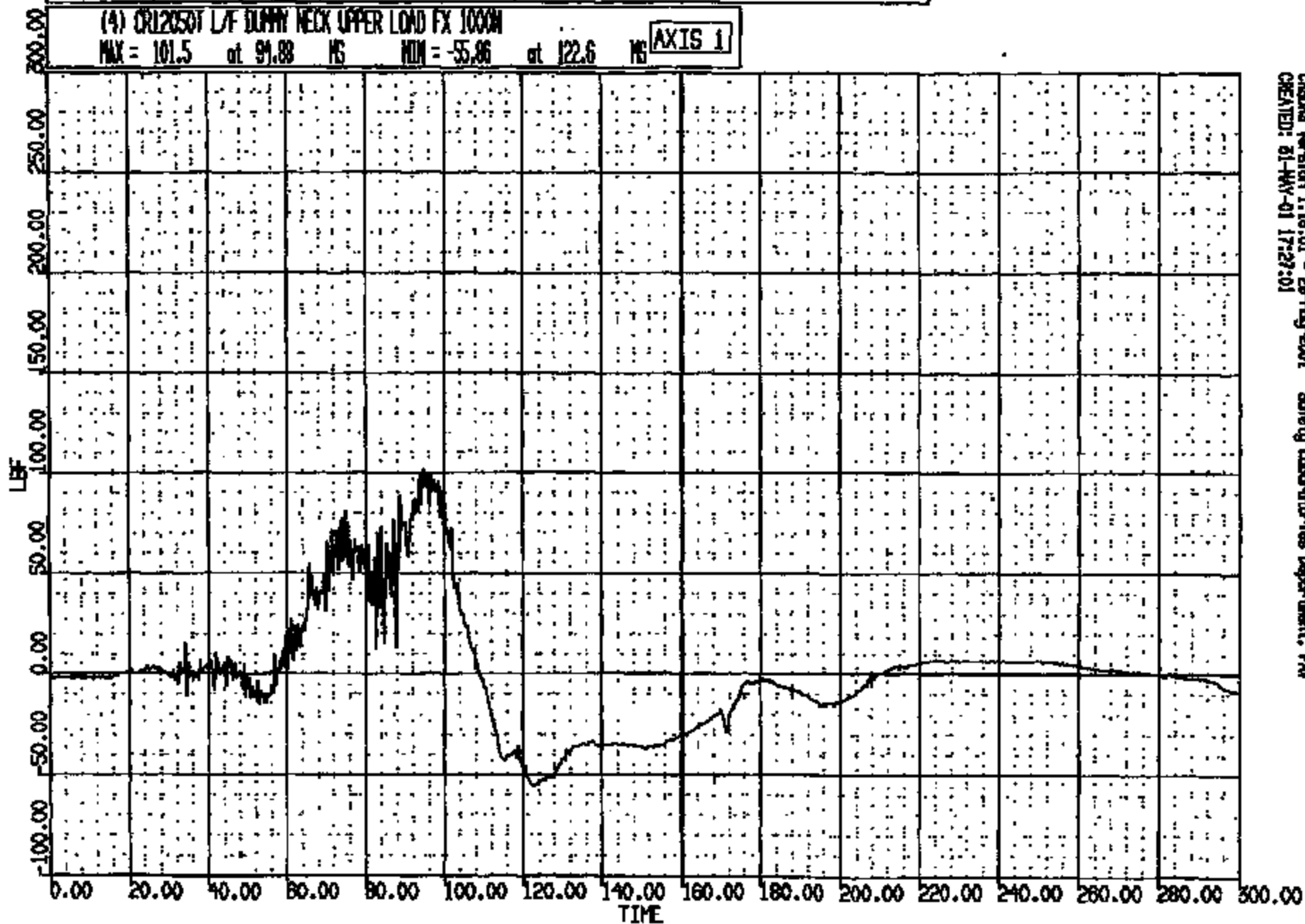
CRITS 0012050

01 2: 12050 TO: TC1775 DATE: 00102 5:59:16  
26.0 D100

(4) CR12050T L/F DUMMY NECK UPPER LOAD FX 1000N

MAX = 101.5 at 91.88 MS MIN = -55.86 at 122.6 MS

AXIS 1

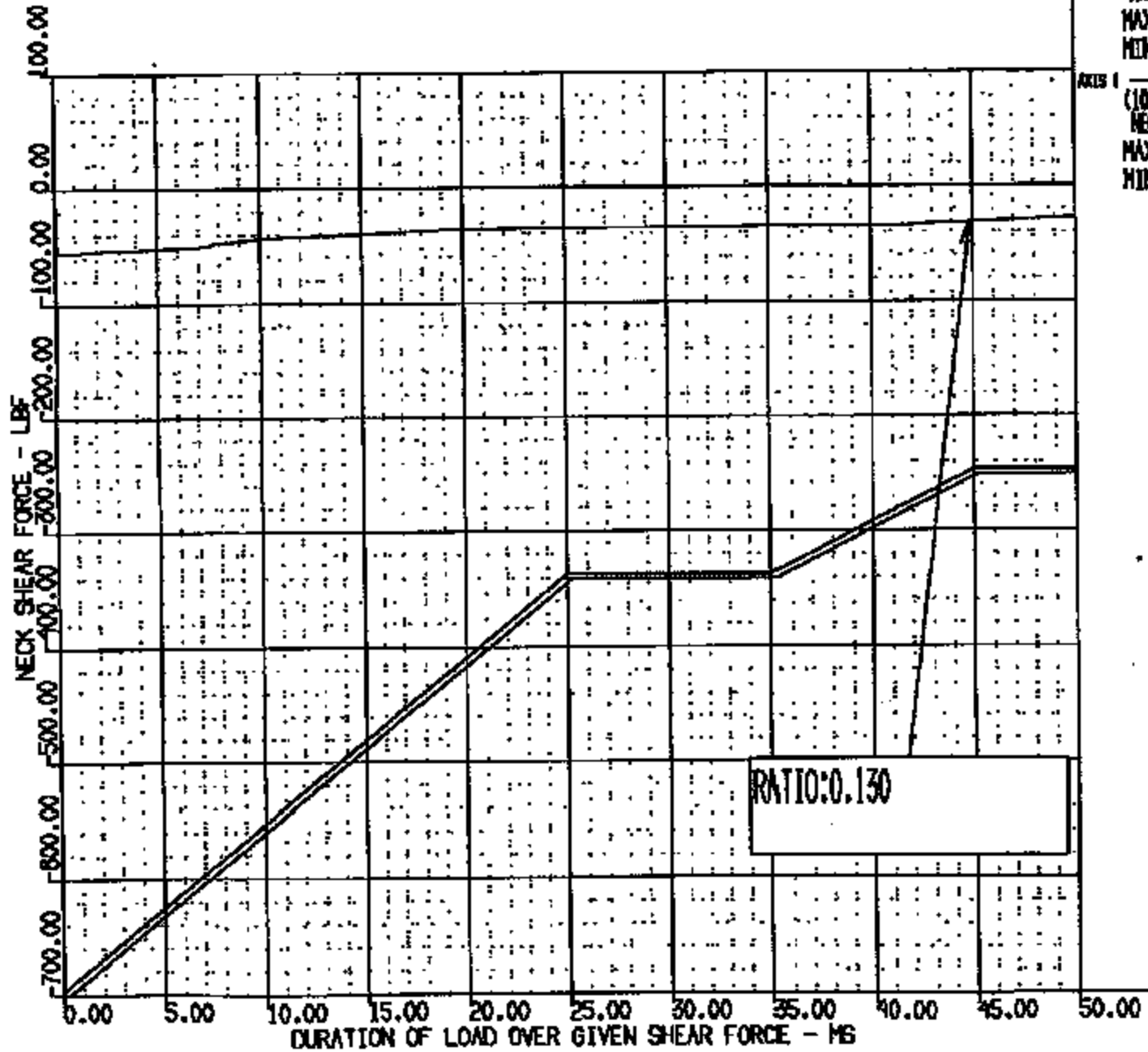


CASAS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 01-MAY-01 17:27:01

CRIS 0012050

> NECK WRT HEAD SHEAR FORCE  
 CR: R: 12090 TO: TC1775 DATE: 00102L 13:58:16  
 HYBRID III CRITERIA PLOT - 50TH % DUMMY  
 DURATION CURVES MAY INCLUDE MULTIPLE PEAKS

FOREIGN



AXIS 1  
 (10218) CRITERIA LINE FOR AFT NECK  
 WRT HEAD SHEAR FORCE  
 MAX = 247.6 at 45.00 MS  
 MIN = 686.9 at 0.0000E+00 MS

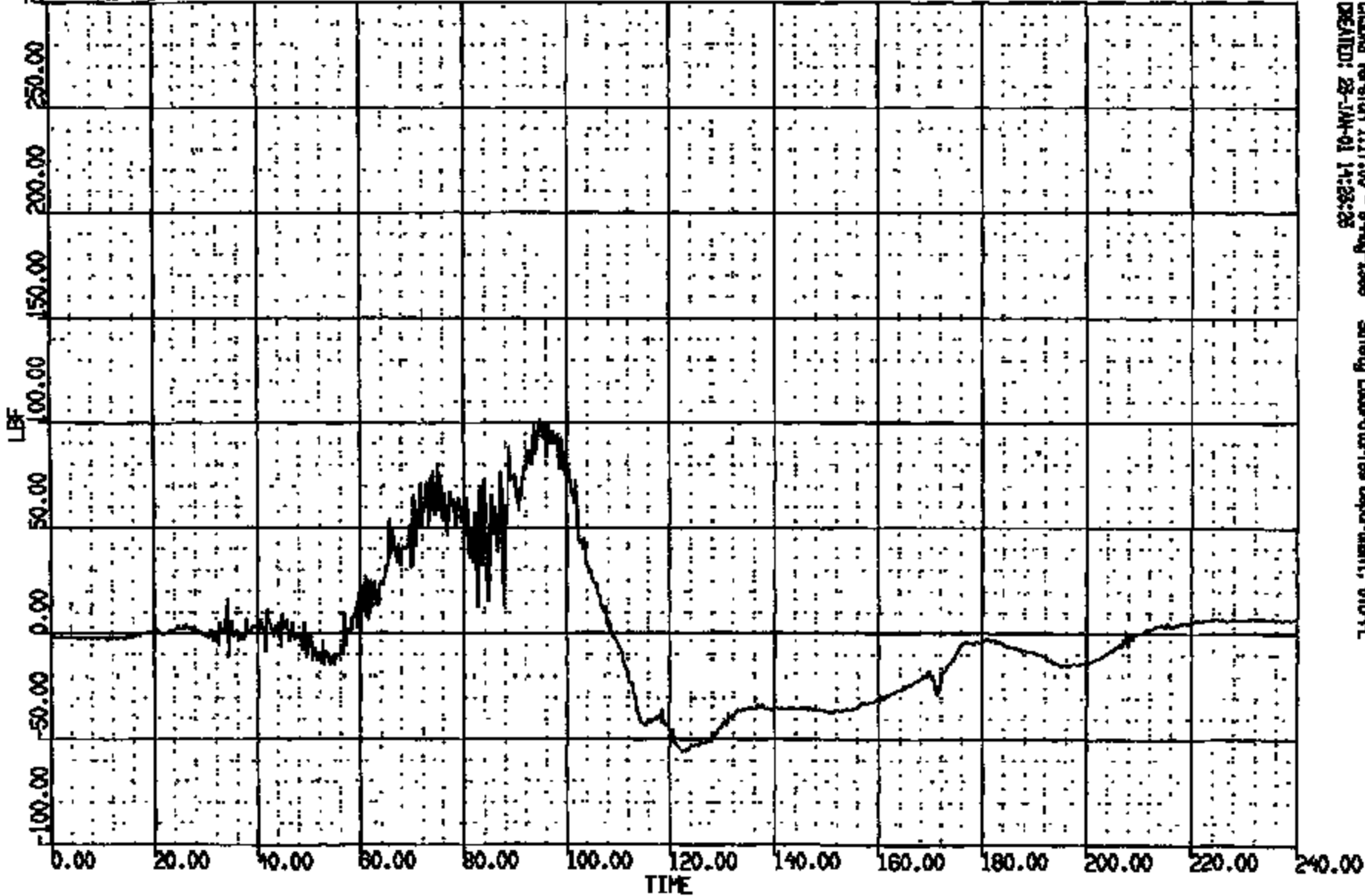
AXIS 2  
 (10217) DURATION CRITERIA L/F DUMMY  
 NECK UPPER LOAD FX 100  
 MAX = 0.0000E+00 at 0.0000E+00 MS  
 MIN = -55.86 at 0.7993E-01 MS

CRASH Version 1.17.00 - 8-May-1998 Safety Laboratories Department, 610-PL  
 CREATED: 28-JAN-01 13:48:22

CRIS 0012050

NO: 12050 TO: TC1776 DATE: 00102 13:58:18  
R000 0-180

(4) CR12050T L/F DUMMY NECK UPPER LOAD FX 1000N  
MAX = 101.5 at 91.88 MS MIN = -55.86 at 122.6 MS **AXIS 1**



CRSIS Version 1.17.00 - 8-May-1999 Safety Laboratories Department, SLD-FL  
CREATED: 28-JAN-01 14:28:28

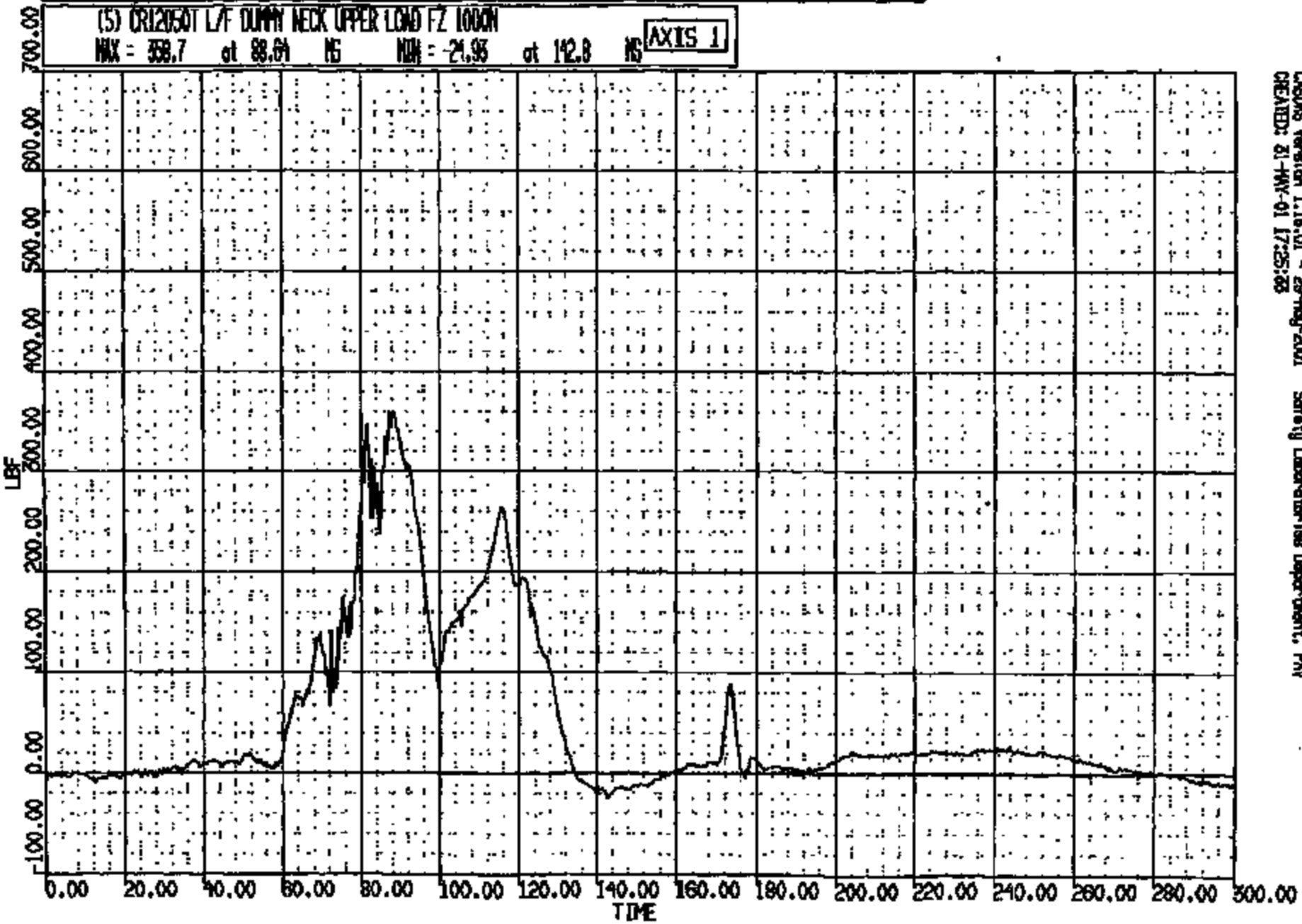
CRIS 0012050

C: 12050 TO: TC1775 DATE: 00102 15:59:15  
ALJO D188

(5) CR12050T L/F DUMMY NECK UPPER LOAD FZ 1000N

MAX = 358.7 at 88.64 MS MIN = -21.95 at 142.8 MS

AXIS 1

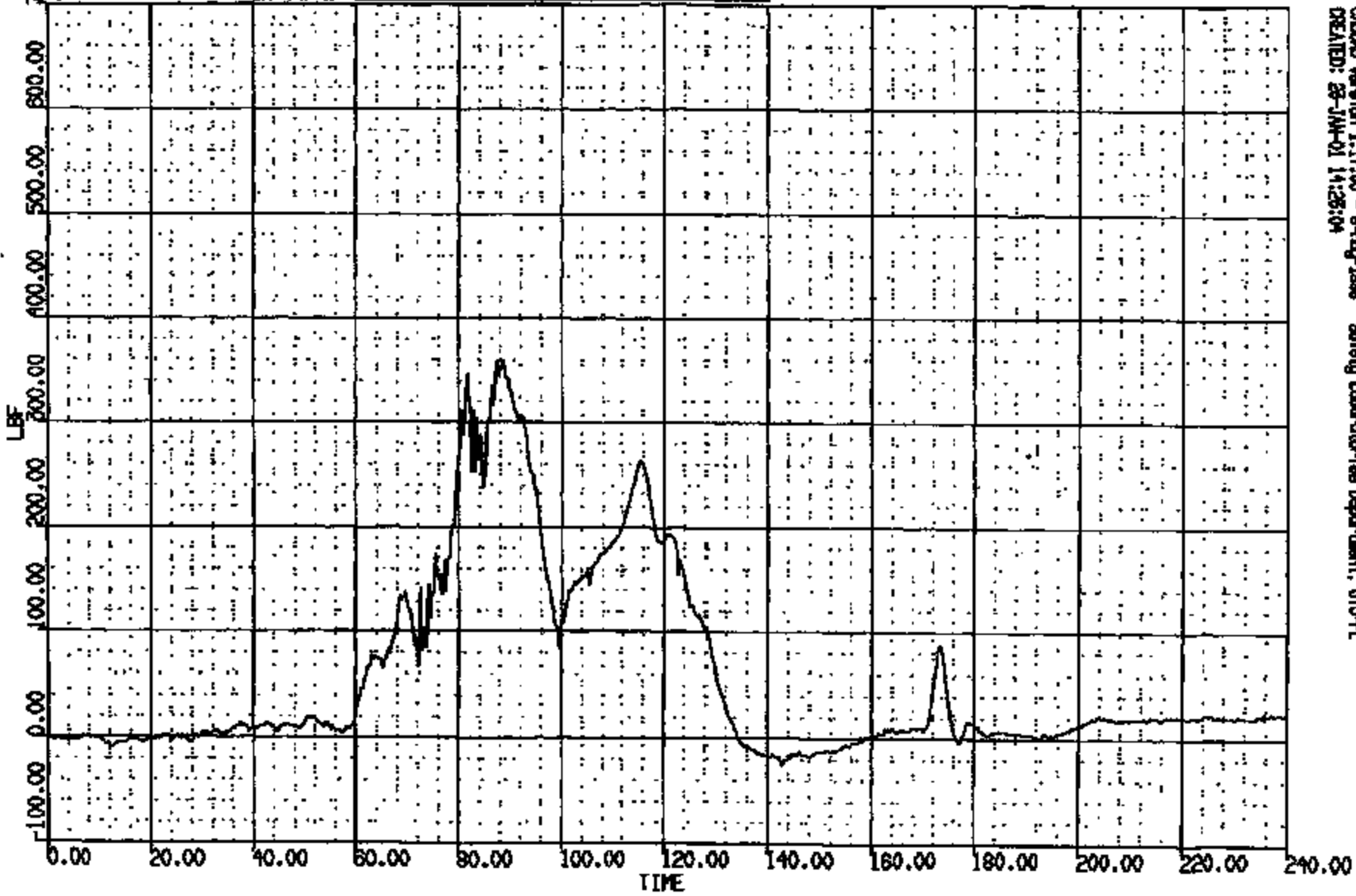


CRS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAH  
CREATED: 21-MAY-01 17:25:28

CRIS 0012050

CR: 12050 TO: TC1775 DATE: 00102 0:59:10  
AL/O D-188

(5) CR12050T L/F DUMMY NECK UPPER LOAD FZ 1000N  
MAX = 338.7 at 88.64 MS MIN = -21.93 at 142.8 MS **AXIS 1**



CRS05 Version 1.17.00 - 8-Feb-1998 Safety Laboratories Department, 610-PL  
CREATED: 28-JAN-01 14:25:04

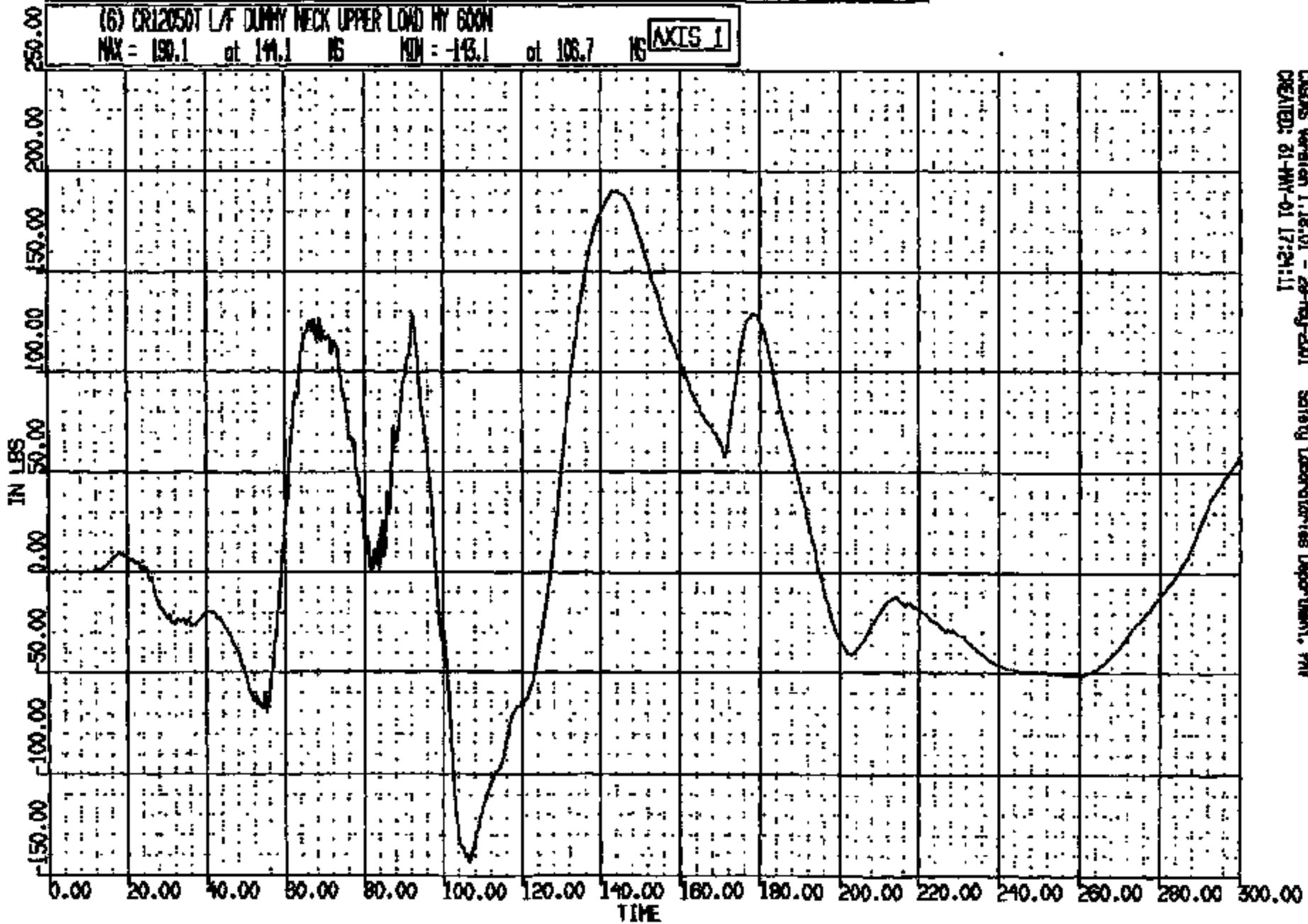
CRIS 0012050

ID: 12050 TO: TC1775 DATE: 001021 5:59:16  
DL 0 D180

(6) CR12050T L/F DUMMY NECK UPPER LOAD BY 600N

MAX = 190.1 at 141.1 MS MIN = -143.1 at 106.7 MS

AXIS 1



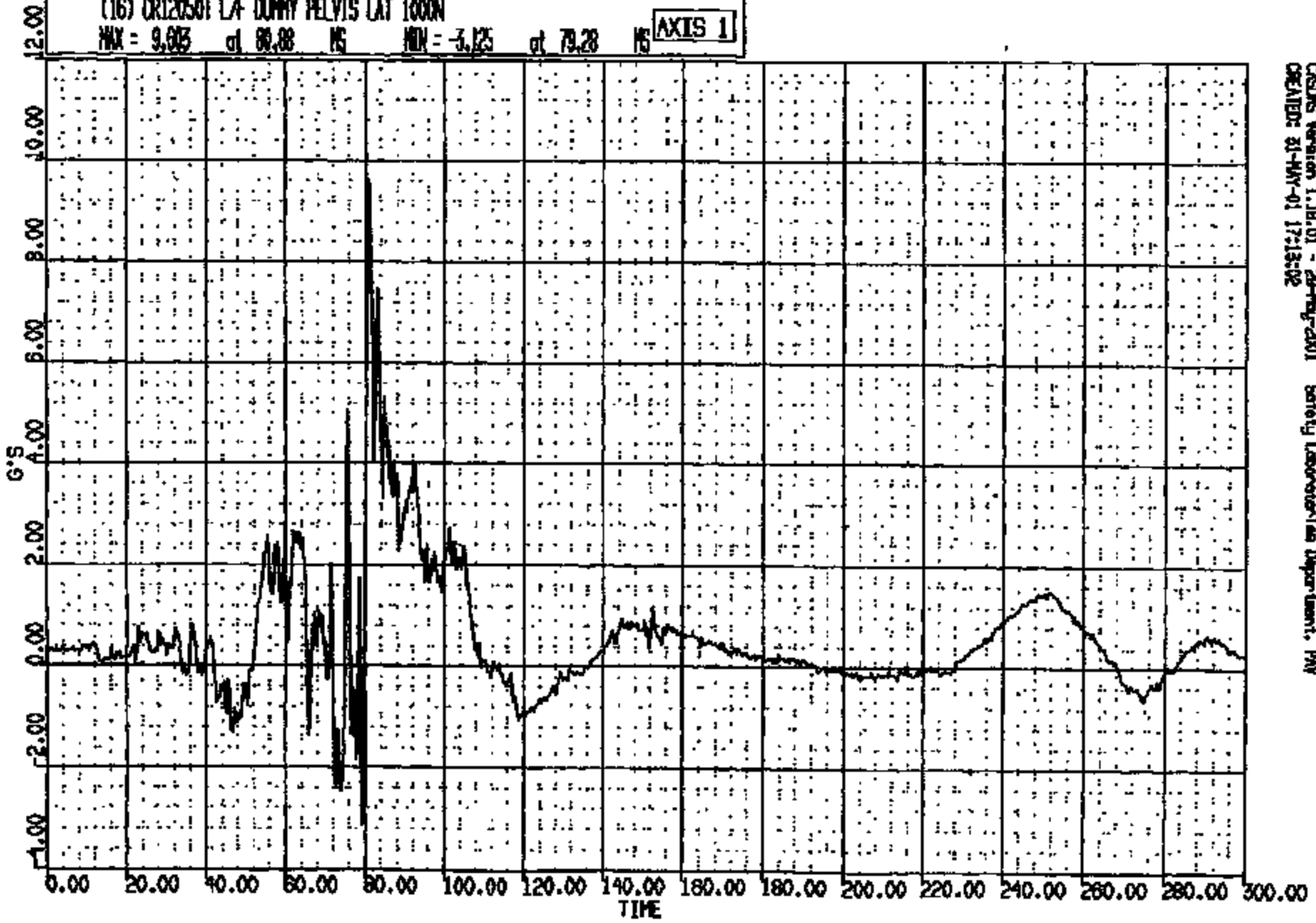
CARDS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PMV  
CREATED: 01-MAY-01 17:24:11

CRTS 0012050



CR: 12050 TO: TC1775 DATE: 00102 13:58:18  
M: 70 D: 88

(16) CR120501 LA DUMMY PELVIS LAT 1000N  
MAX = 9.003 at 80.88 MS MIN = -3.125 at 79.28 MS **AXIS 1**



CRDS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNV  
CREATED: 21-MAY-01 17:13:02

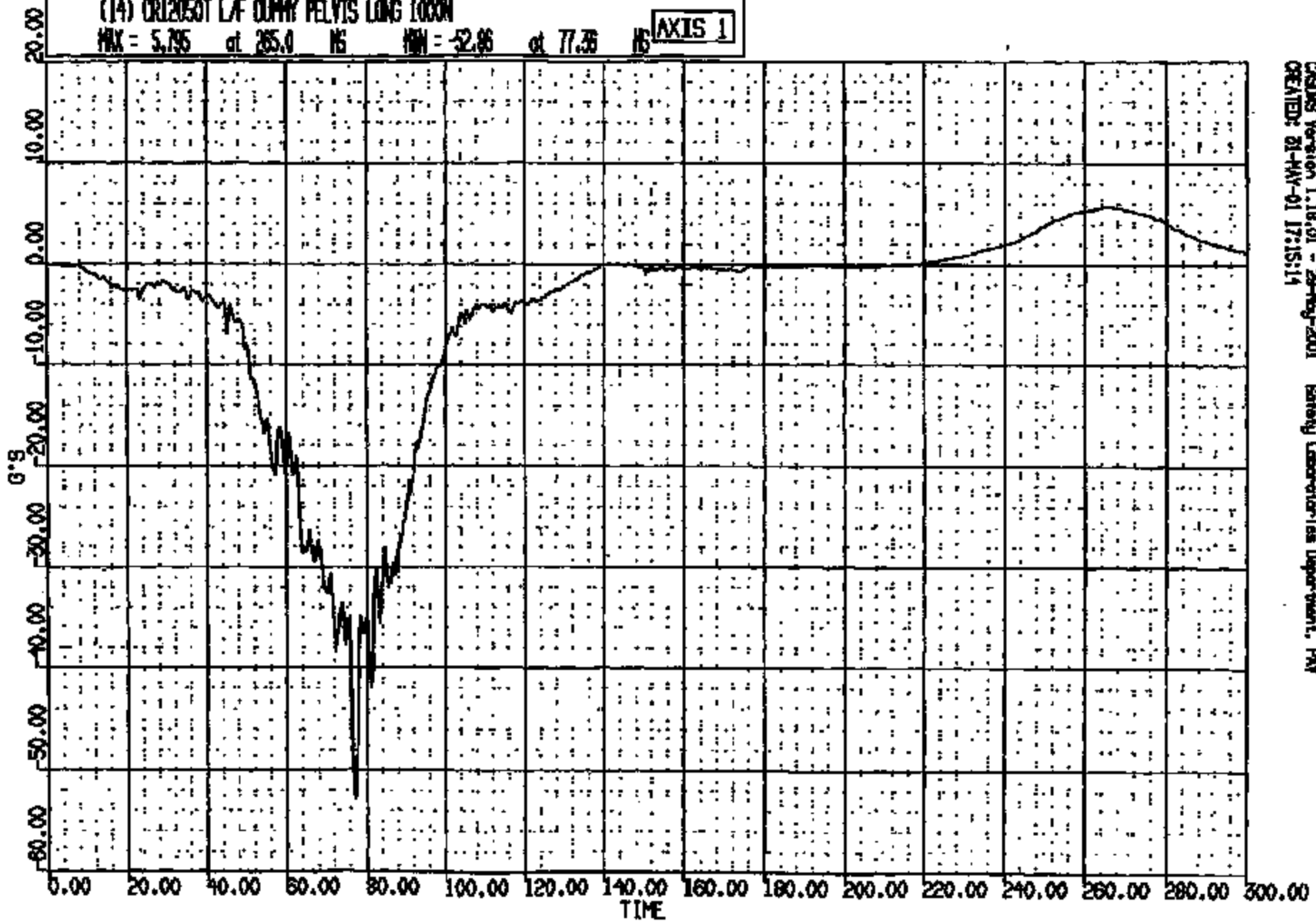
CRIS 0012050

CRTS: 12050 TO: TC1775 DATE: 00102 15:58:18  
BUJO 0188

(14) CR12050T LAF DUMMY PELVIS LONG 1000N

MAX = 5.795 at 285.0 MS MIN = -52.86 at 77.35 MS

AXIS 1

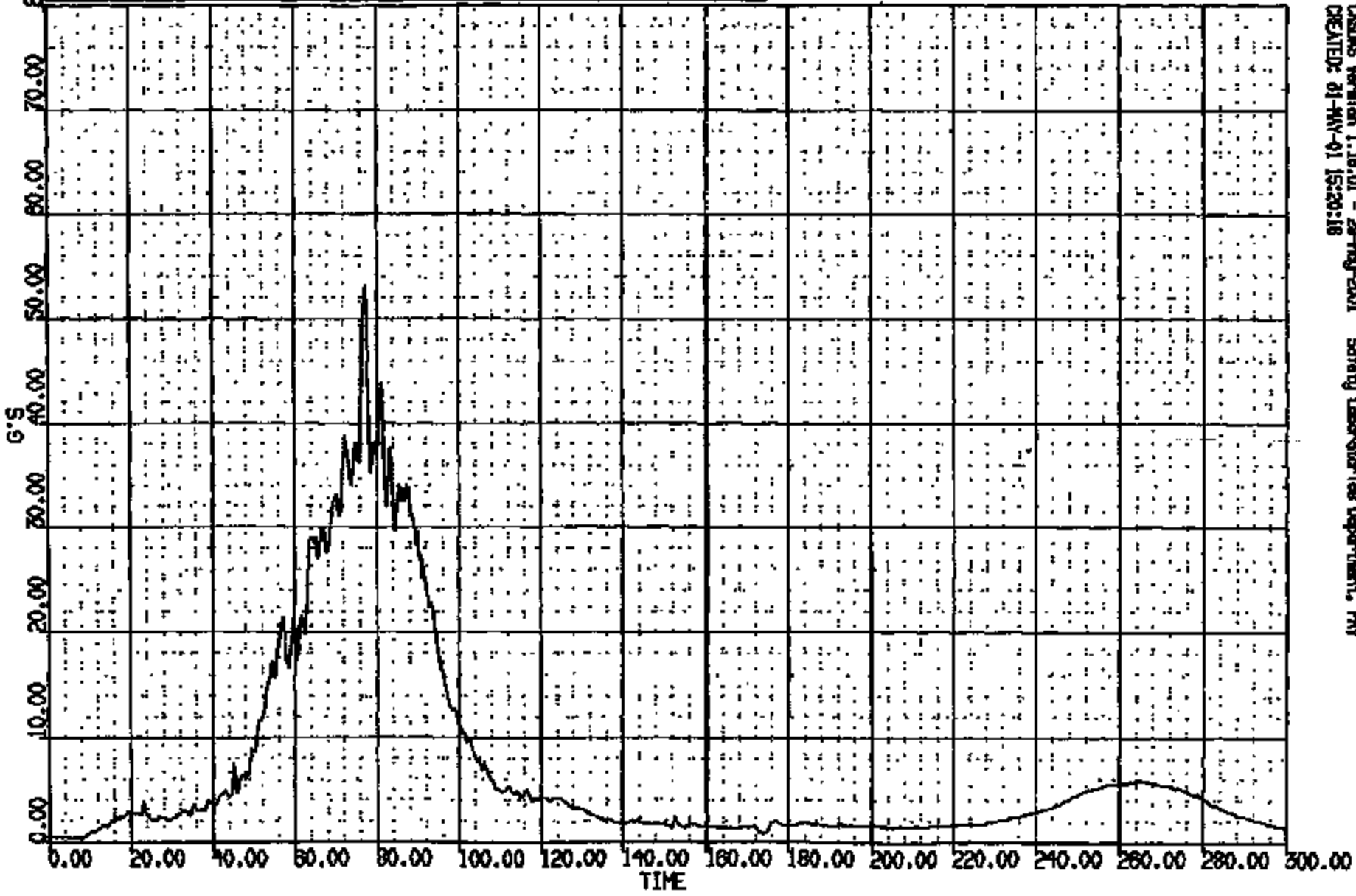


CRSIS Version 1.18.01 - 29-May-2001 Pathology Laboratories Department, PAW  
CREATED: 01-MAY-01 17:15:14

CRTS 0012050

CR: 12050 TO: TC1775 DATE: 00102 15:59:18  
BUJO D188

(10014) CR12050T L/F DUMPY PELVIS RES 1000N  
MAX = 53.13 at 77.36 MS MIN = 0.1332 at 0.0000E+00 MS **AXIS 1**

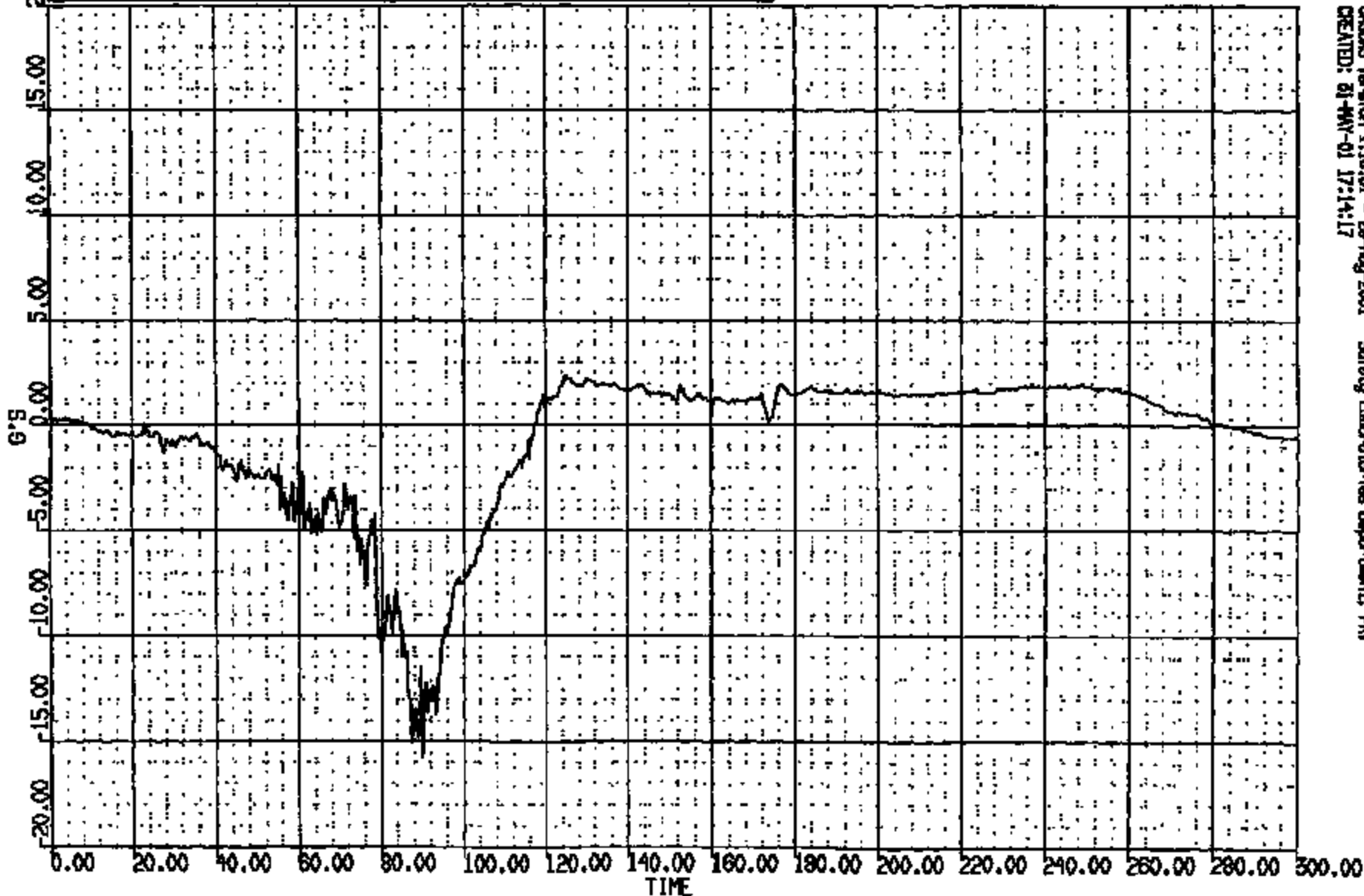


CRSIS Version 1.16.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 01-MAY-01 15:20:18

CRIS 0012050

01 : 12050 TO: TC:775 DATE: 001021 5:59:16  
RULO D188

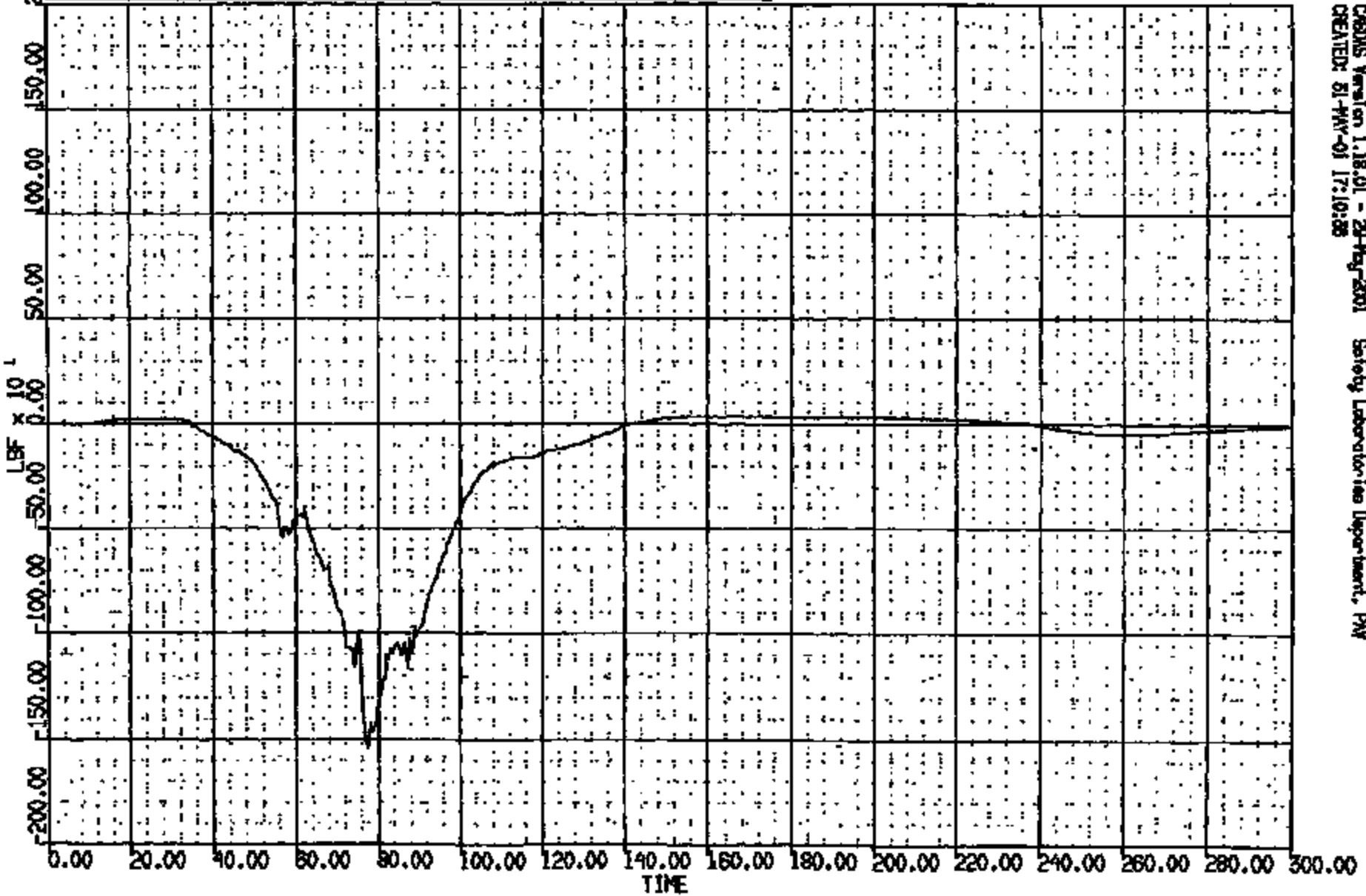
(15) CR12050T L/R DUMMY PELVIS VERT 1000N  
MAX = 2.337 at 124.9 MS MIN = -15.78 at 90.00 MS **AXIS 1**



CASUS Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PNW  
CREATED: 01-MAY-01 17:14:17

01 12050 TO: TC1775 DATE: 001021 3:59:18  
20.0 D188

(18) CR120501 LA DUMMY REFEROR LOAD FZ 600N  
MAX = 38.74 at 174.9 MS MIN = -153.8 at 77.52 MS **AXIS 1**



CHROMS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNW  
CREATED: 01-MAY-01 17:10:28

CR12050

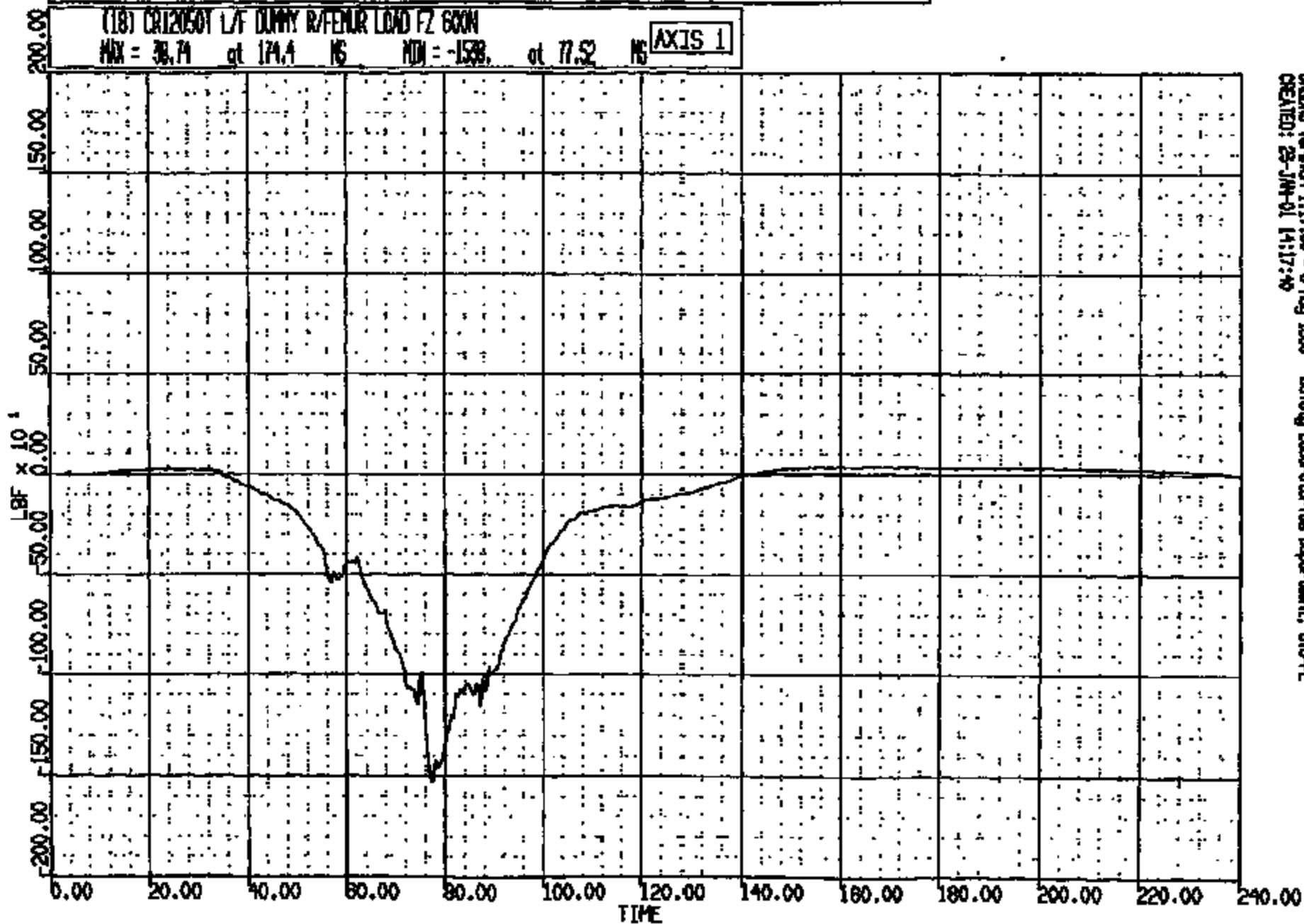
C R: 12050 TD: TC1775 DATE: 00102 13:59:18

RUN D-188

(18) CRT2050T L/F DUMMY R/FEMUR LOAD FZ 600N

MAX = 38.71 at 171.4 MS MIN = -153.8 at 77.52 MS

AXIS 1



CRS Version 1.17.00 - 8-Aug-1998 Safety Laboratories Department, 610-PL  
CREATED: 29-JUN-01 14:17:49

CRTS 0012050

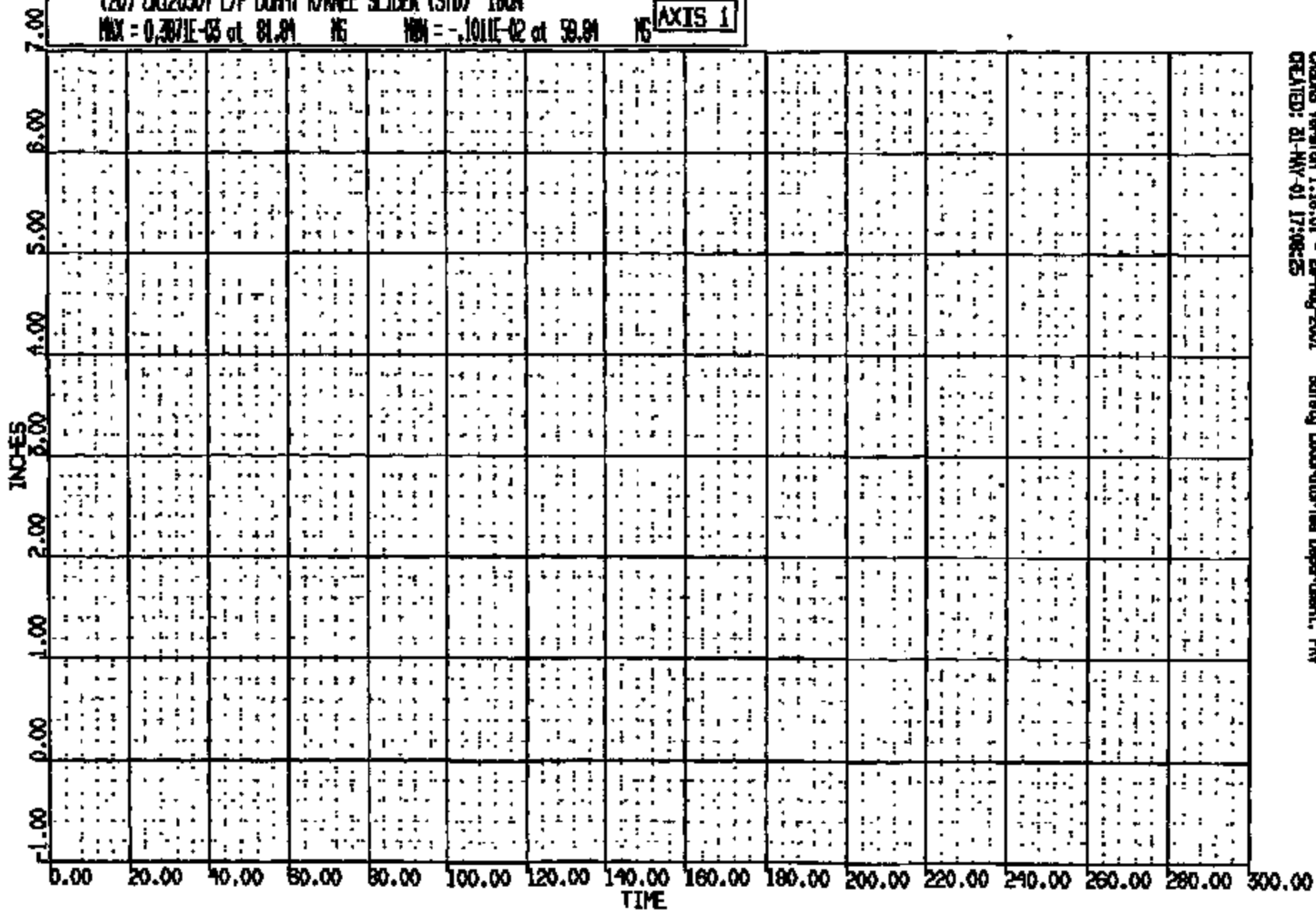
CAR: 12080 TO: TC1775 DATE: 00102 15:59:16

BAJO D188

(20) CR120501 L/F DUMPY R/WHEEL SLIDER (STD) 180N

MAX = 0.3071E-05 at 81.81 NS MIN = -.1011E-02 at 59.81 NS

AXIS 1

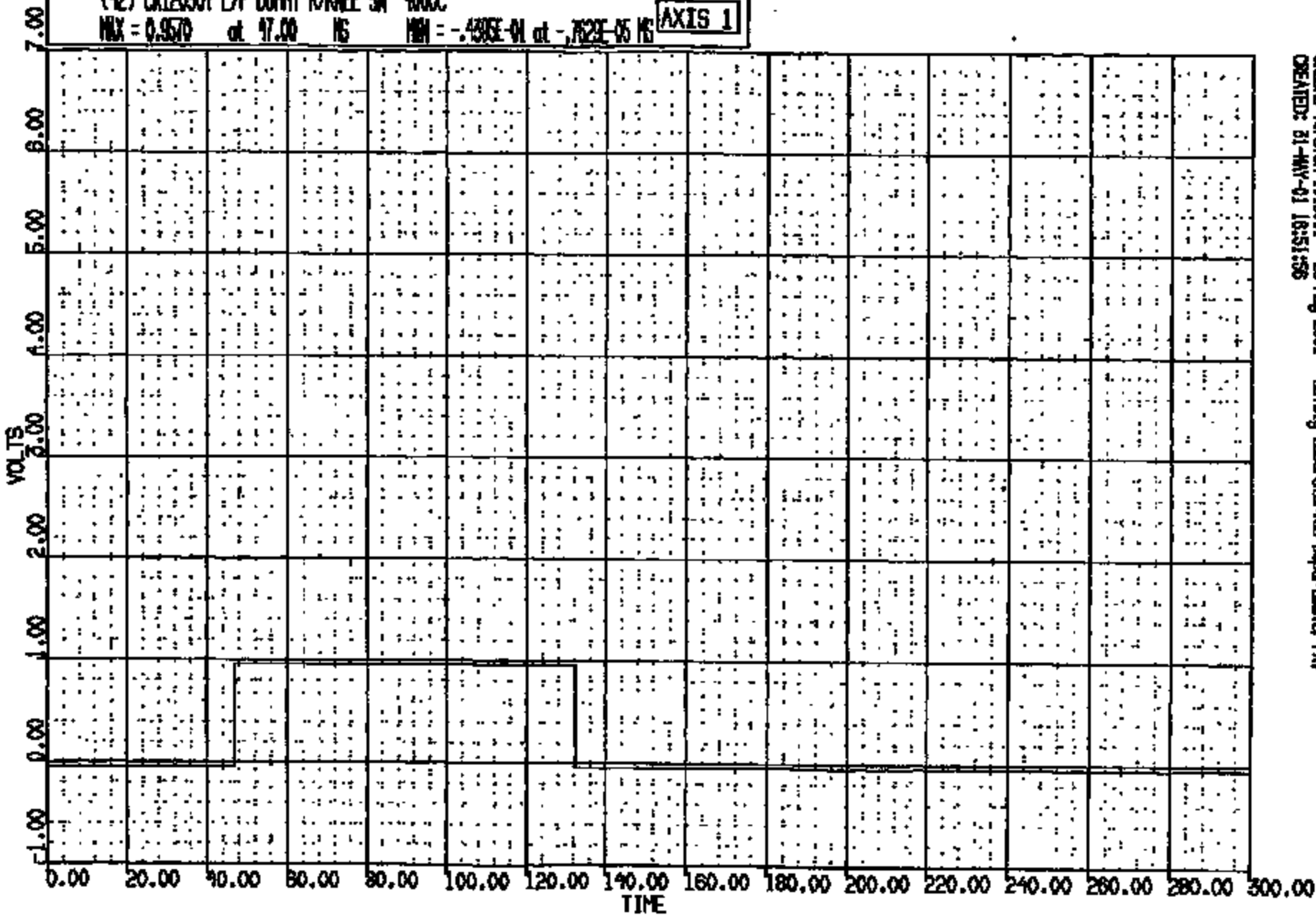


CASUS Version 1.16.01 - 29-May-2001 Safety Laboratories Department, PMW  
CREATED: 21-MAY-01 17:08:25

CRIS 0012050

UNIT: 12050 TO: TC1775 DATE: 00102 03:58:16  
2000 0198

(42) CR12050T L/F DUMMY RANGE SW 4000C  
MAX = 0.9570 at 97.00 MS MIN = -.4305E-01 at -.752E-05 MS **AXIS 1**



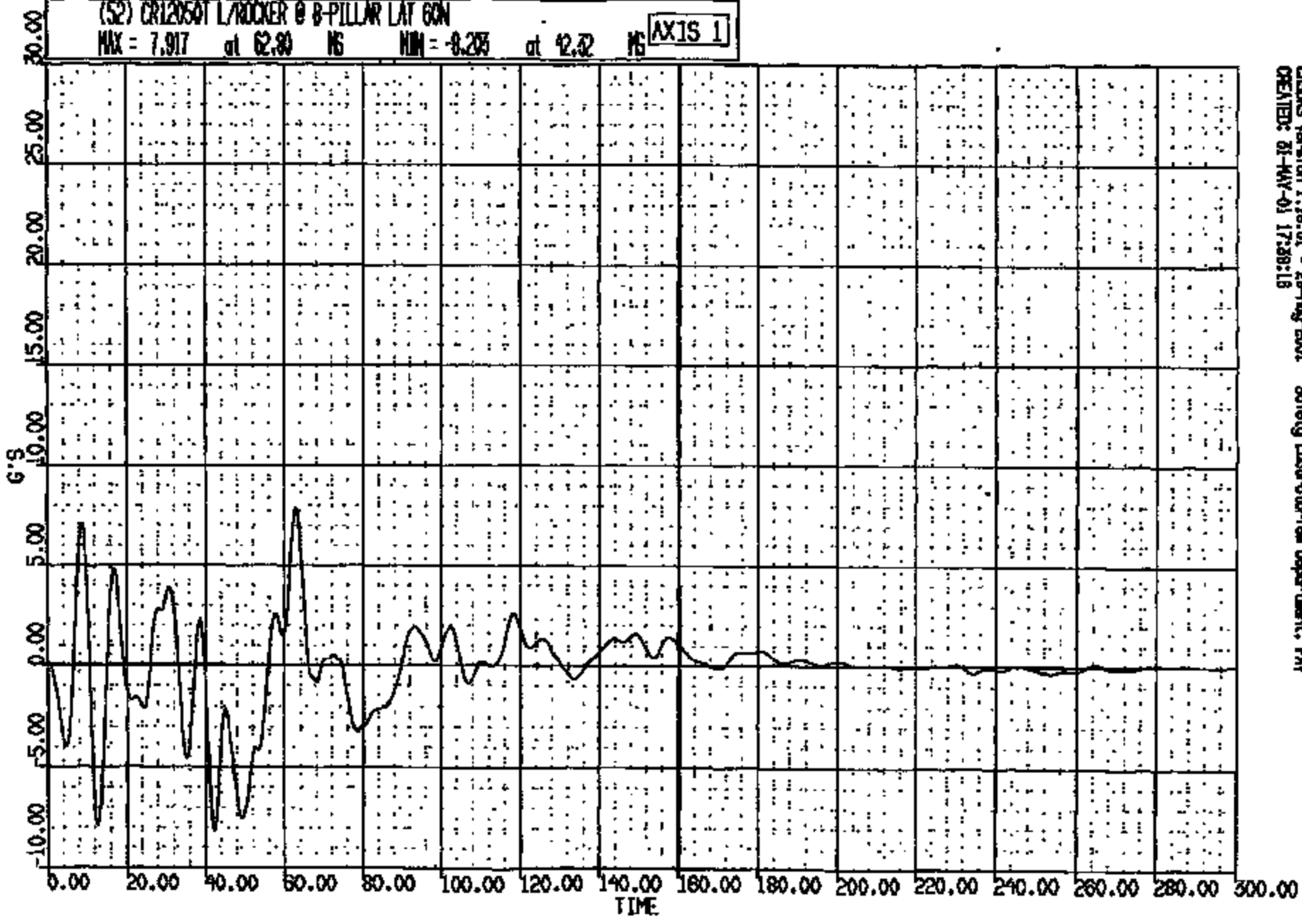
CRIMS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 31-MAY-01 18:51:56

CRIS 0012050



NO: 12050 TO: TC1778 DATE: 00102 13:59:18  
NO: 0188

(52) CR120501 L/ROCKER @ B-PILLAR LAT 60N  
MAX = 7.917 at 62.90 MS MIN = -8.203 at 42.42 MS **AXIS 1**

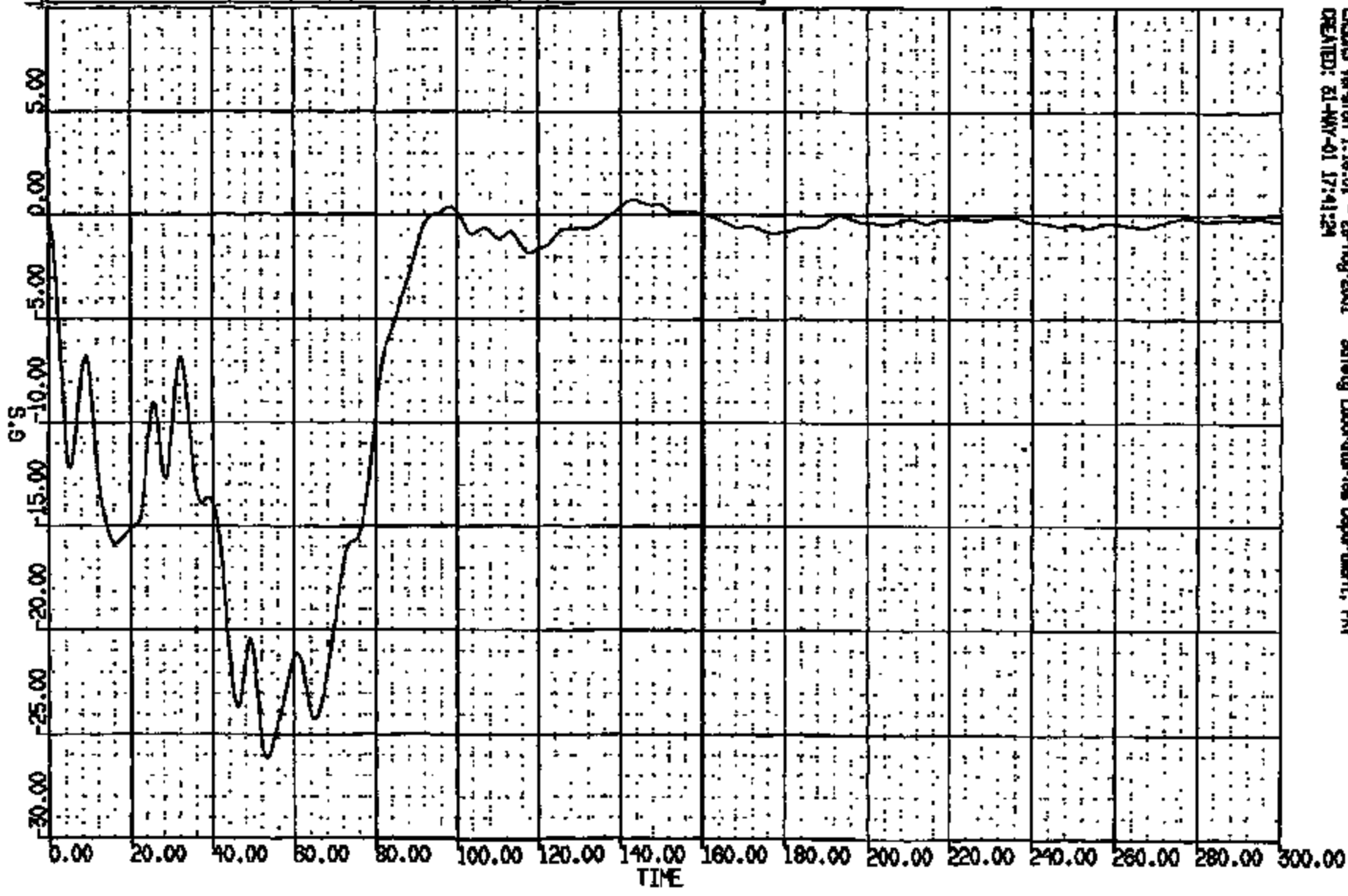


CRS Version 1.18.01 - 28-May-2001 Safety Laboratory Department, PHV  
CREATED: 01-MAY-01 17:58:18

CRTS 0012050

NO 3: 12050 TO: TC1775 DATE: 00102 2:59:16  
R 0 DISB

(50) CR020501 L/ROCKER @ B-PILLAR LONG 60N  
MAX = 0.7161 at 143.1 MS MIN = -26.16 at 53.28 MS **AXIS 1**

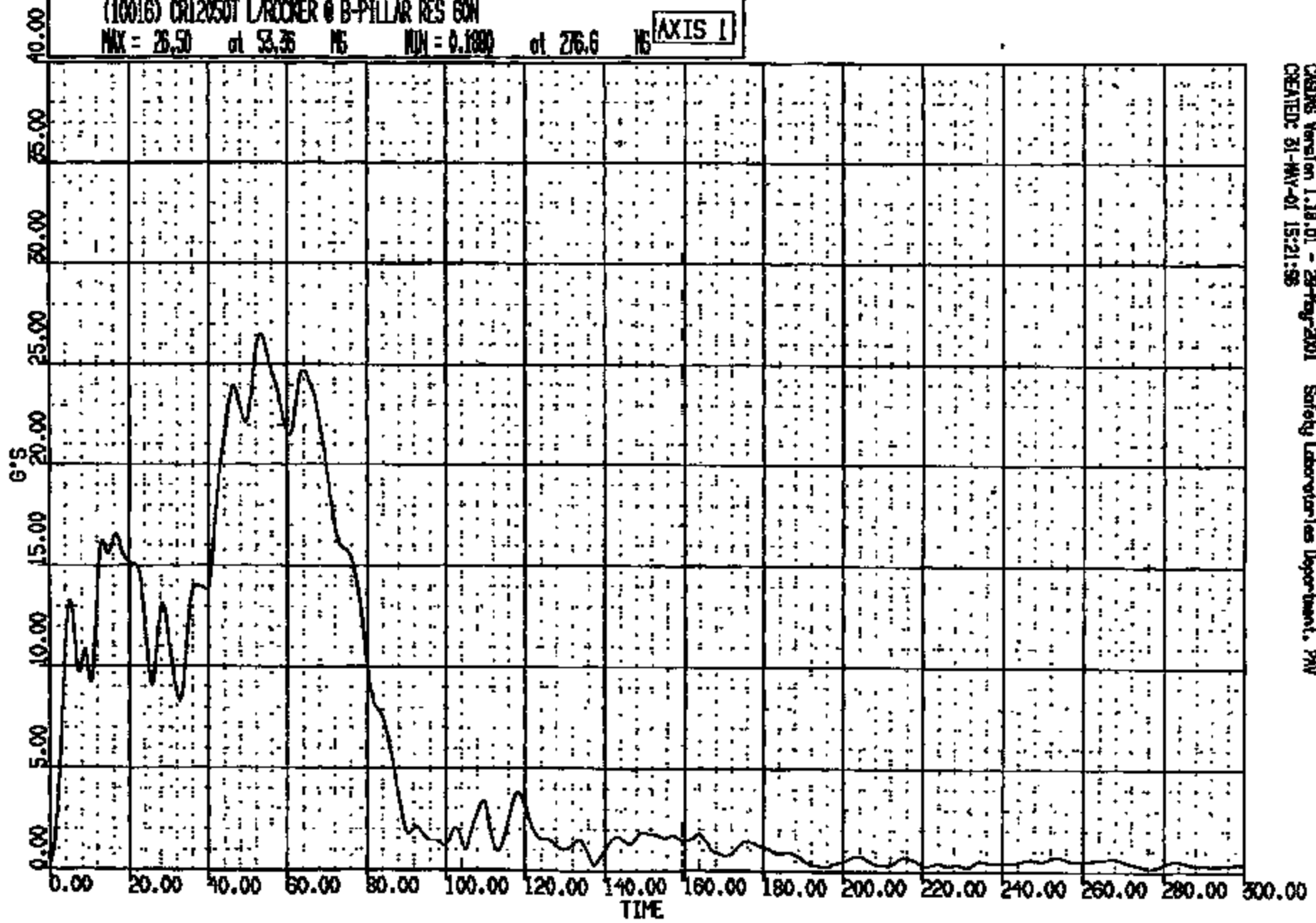


CRSIS Version 1.18.01 - 28-Aug-2001 Safety Laboratories Department, PNV  
CREATED: 21-Nov-01 17:41:24

CRIS 0012050

R: 12050 TO: TC1775 DATE: 00102 13:52:18  
M JO 0188

(10016) CR12050T LROCKER @ B-PILLAR RES 60N  
MAX = 26.50 at 53.35 16 MIN = 0.1880 at 276.6 16 **AXIS 1**

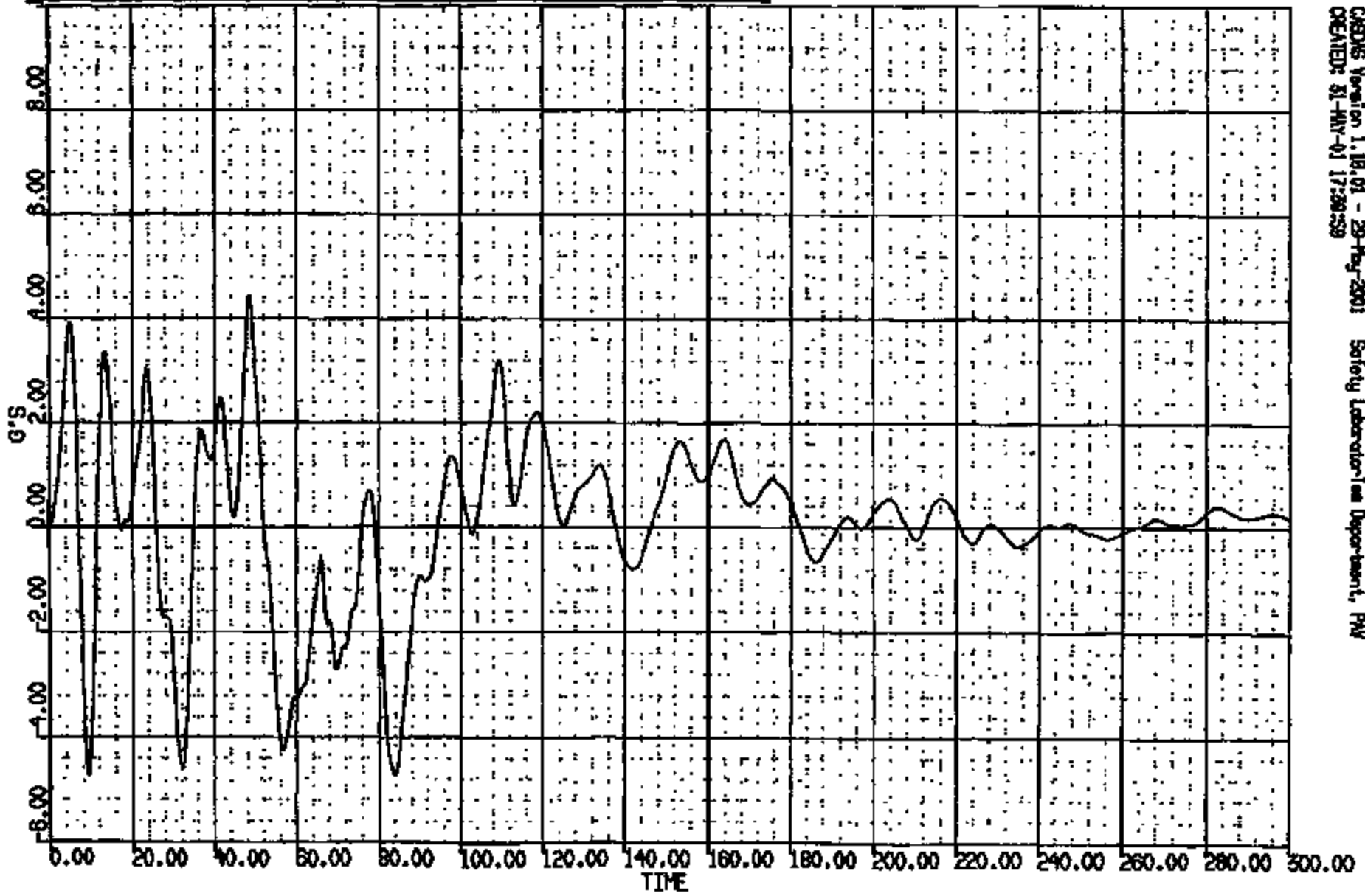


CRS06 Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PHV  
CREATED: 01-MAY-01 15:21:55

CR12050

COR: 12050 TO: TC1775 DATE: 00102 13:59:18  
2. JO Di88

(51) CR12050T L/ROCKER @ B-PILLAR VERT GUN  
MAX = 4.40 at 9.56 MS MIN = -4.759 at 9.280 MS **AXIS 1**



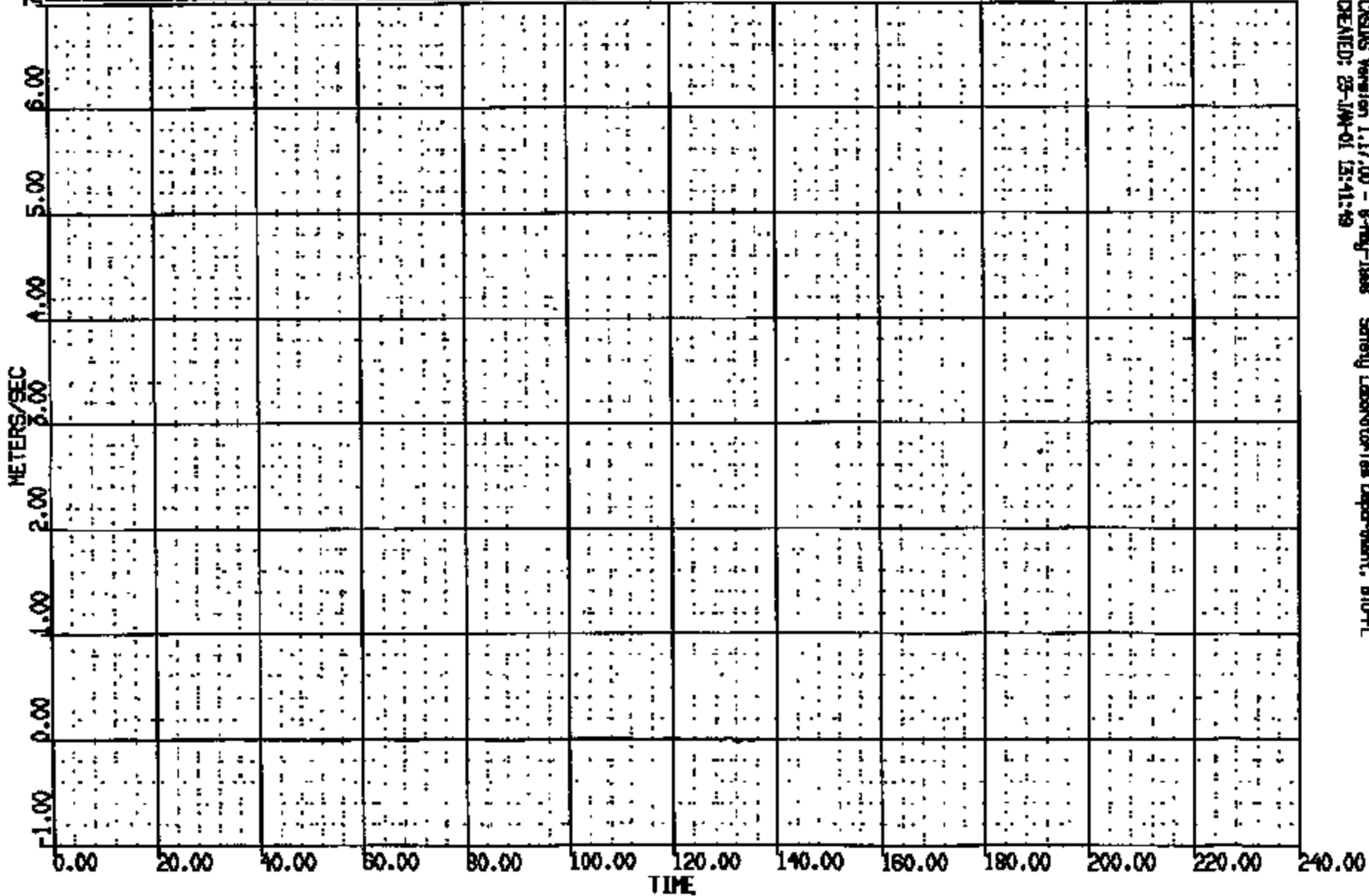
CRS06 Version 1.18.01 - 29-May-2001 Safety Laboratory/In Department, PAW  
CREATED: 81-MAY-01 17:29:59

CRIS 0012050

C: 12050 TD: TC1775 DATE: 00102 13:58:18  
2.30 D-188

EXPERIMENT

(10216) CR12050T R/F DRY CHEST DEFLECTION (800N V/C/E) M/S  
MAX = 0.129E-01 at 105.3 MS MIN = -.239E-01 at 132.3 MS **AXIS 1**



CRDS Version 1.17.00 - 8-May-1988 Safety Laboratories Department, SLD-PL  
CREATED: 25-JUN-01 13:41:49

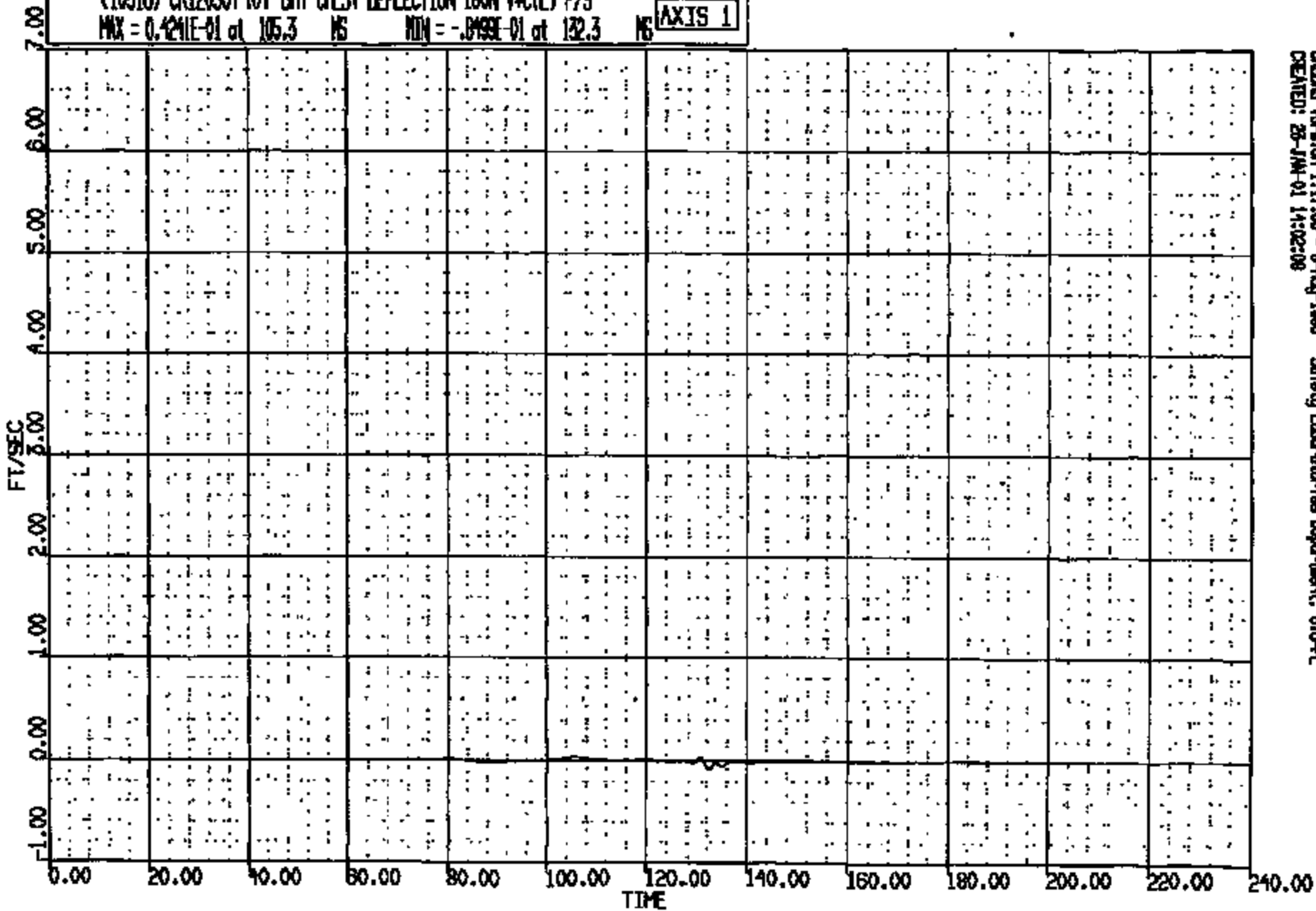
CRTS 0012050

CARD: 12050 TO: TC1775 DATE: 00102 05:58:18  
PL 50 D-188

EXPERIMENT

(10316) CR12050T R/F DRY CHEST DEFLECTION (80N V+CIE) F/S  
MAX = 0.424E-01 at 105.3 MS MIN = -.0499E-01 at 132.3 MS

AXIS 1



CRSAS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, 610-01  
CREATED: 28-JAN-01 14:02:08

CRIS 0012050

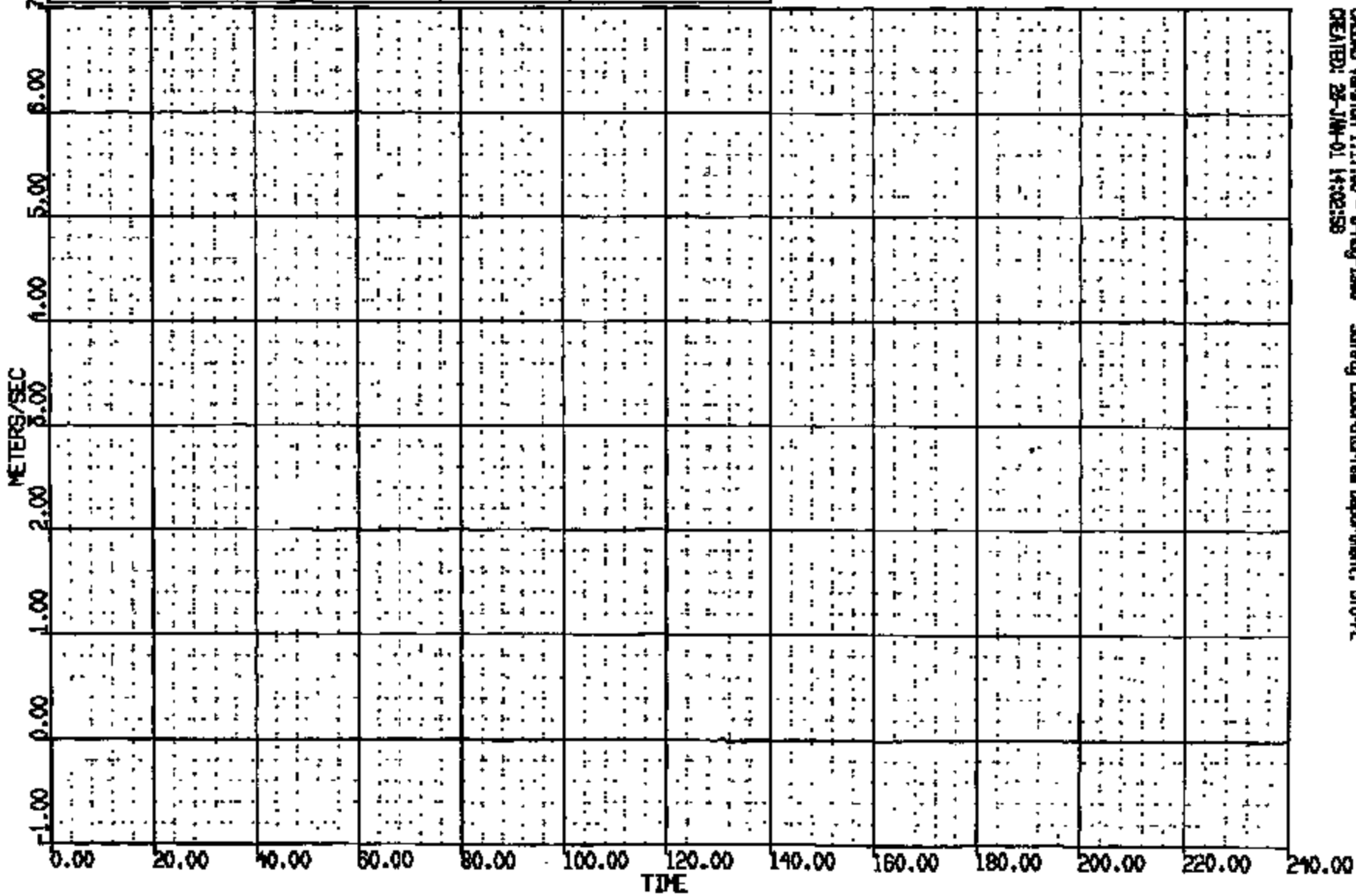
U N : 12050 TD: TC1775 DATE: 00102 .5:59:10  
2L 0 0-188

EXPERIMENTA

(10317) CR12050T R/F DRY CHEST DEFLECTION 180N V(ICE) N/S

MAX = 0.129E-01 at 105.3 MS MIN = -.259E-01 at 132.3 MS

AXIS 1

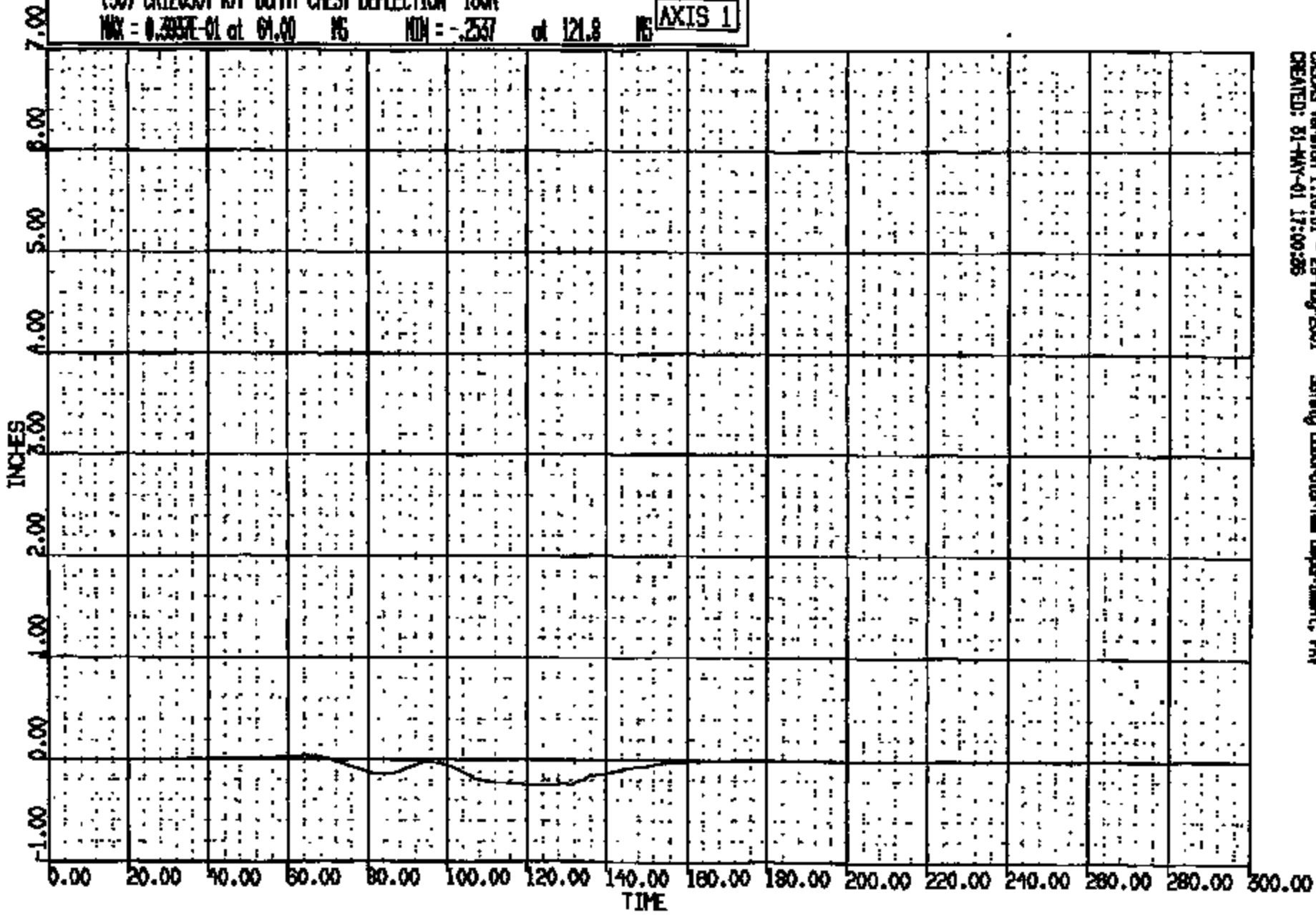


CRIMS Version 1.17.00 - 6-May-1998 Safety Laboratories Department, BTO-PL  
CREATED: 25-JUN-01 14:02:58

CRTS 0012050

NO: 12050 TO: TC1775 DATE: 00102 15:59:10  
JO D188

(30) CR12050T R/F DUMMY CHEST DEFLECTION 180N  
MAX = 0.305E-01 at 61.00 MS MIN = -.2537 at 121.8 MS **AXIS 1**



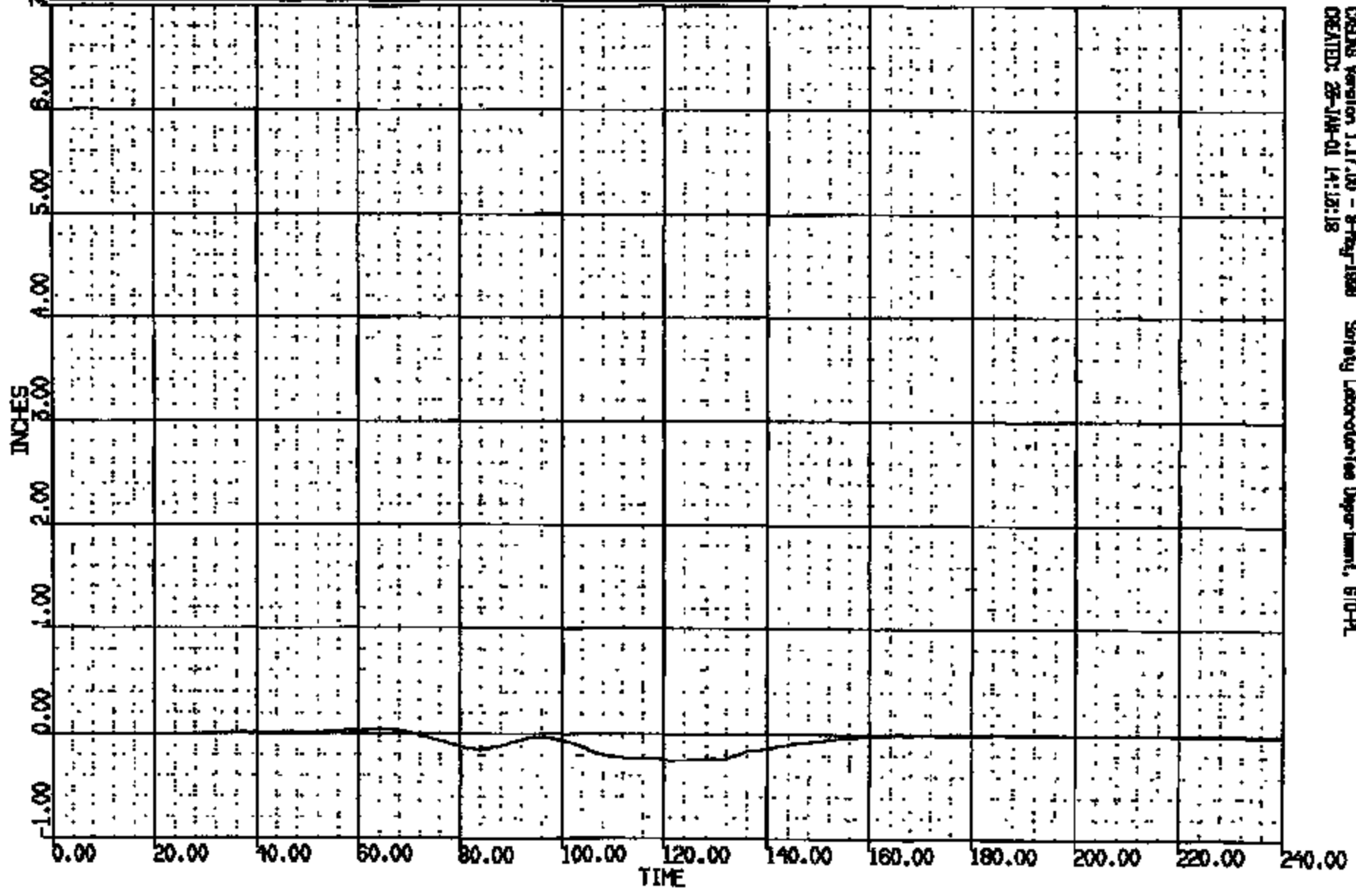
CRS05 Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 01-MAY-01 17:00:28

CRIS 0012050



R: 12050 TO: TC1775 DATE: 00102 13:59:18  
R: 50 D-188

(30) CR12050T R/F DUMMY CHEST DEFLECTION 180N  
MAX = 0.3857E-01 at 64.00 MS MIN = -.2537 at 121.8 MS **AXIS 1**

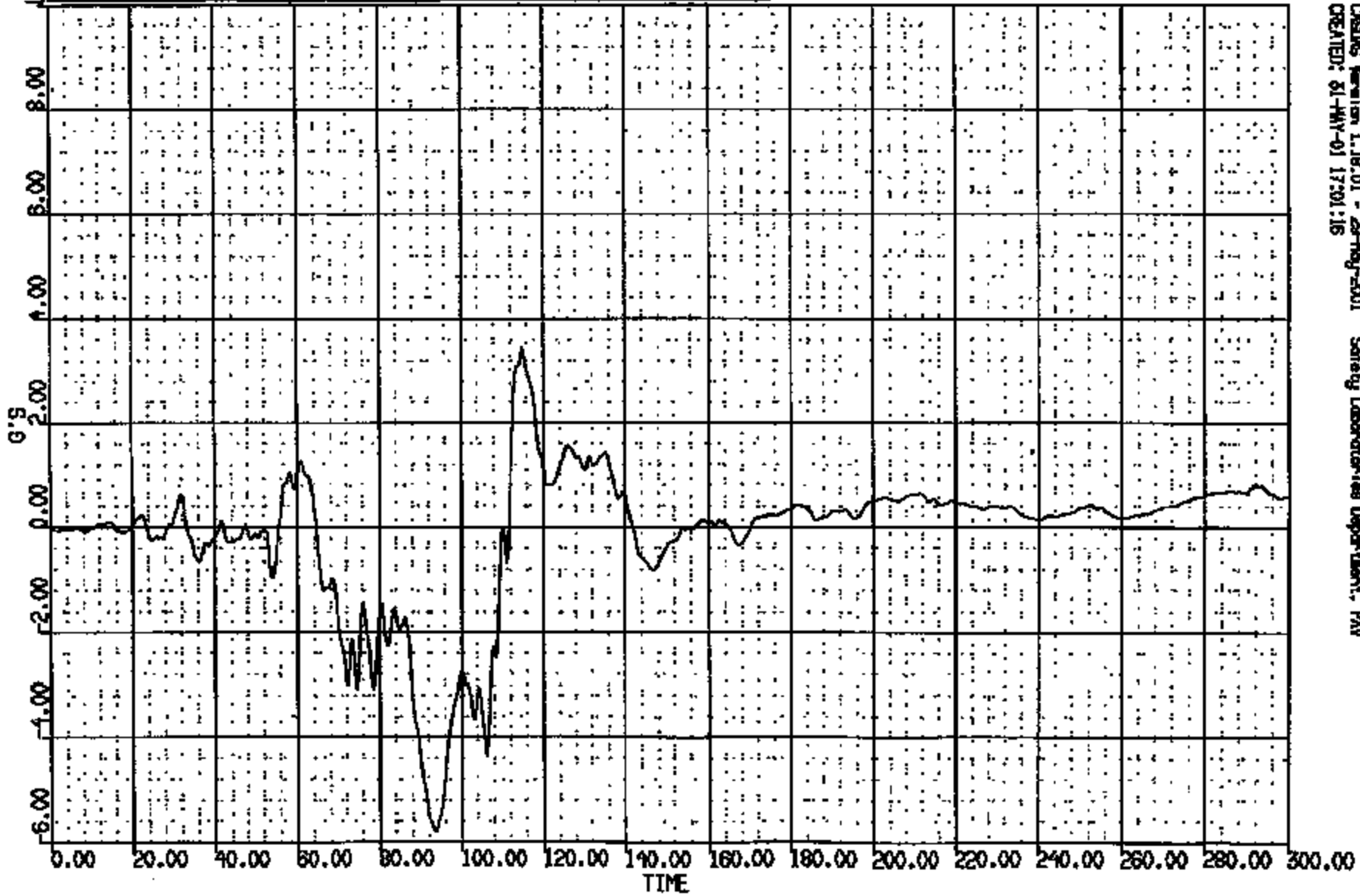


CRSIS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, 670-PL  
CREATED: 28-JAN-01 14:12:18

CRTS 0012050

TC = 12050 TO: TC1775 DATE: 00102 3:59:16  
BL 50 D188

(29) CR120501 R/F DUMMY CHEST LAT 180N  
MAX = 3.491 at 115.0 MS MIN = -5.810 at 93.76 MS **AXIS 1**



CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 01-MAY-01 17:01:16

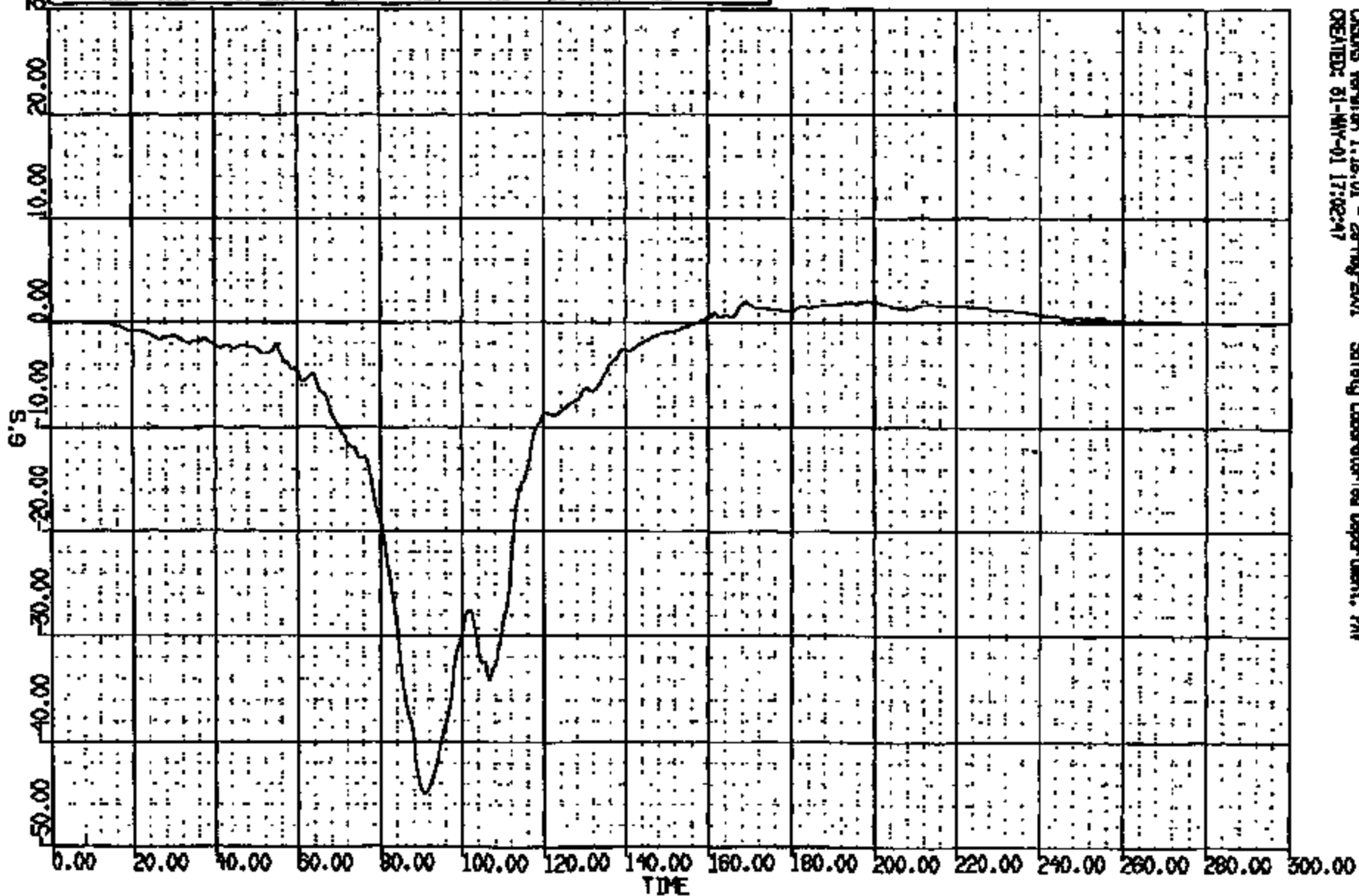
CRTS 0012050

Run #: 12050 TO: TC1775 DATE: 001021 15:50:18  
BUJO D188

(27) CR12050T R/F DUMMY CHEST LONG 180N

MAX = 1.988 at 198.4 MS MIN = -44.92 at 90.80 MS

AXIS 1

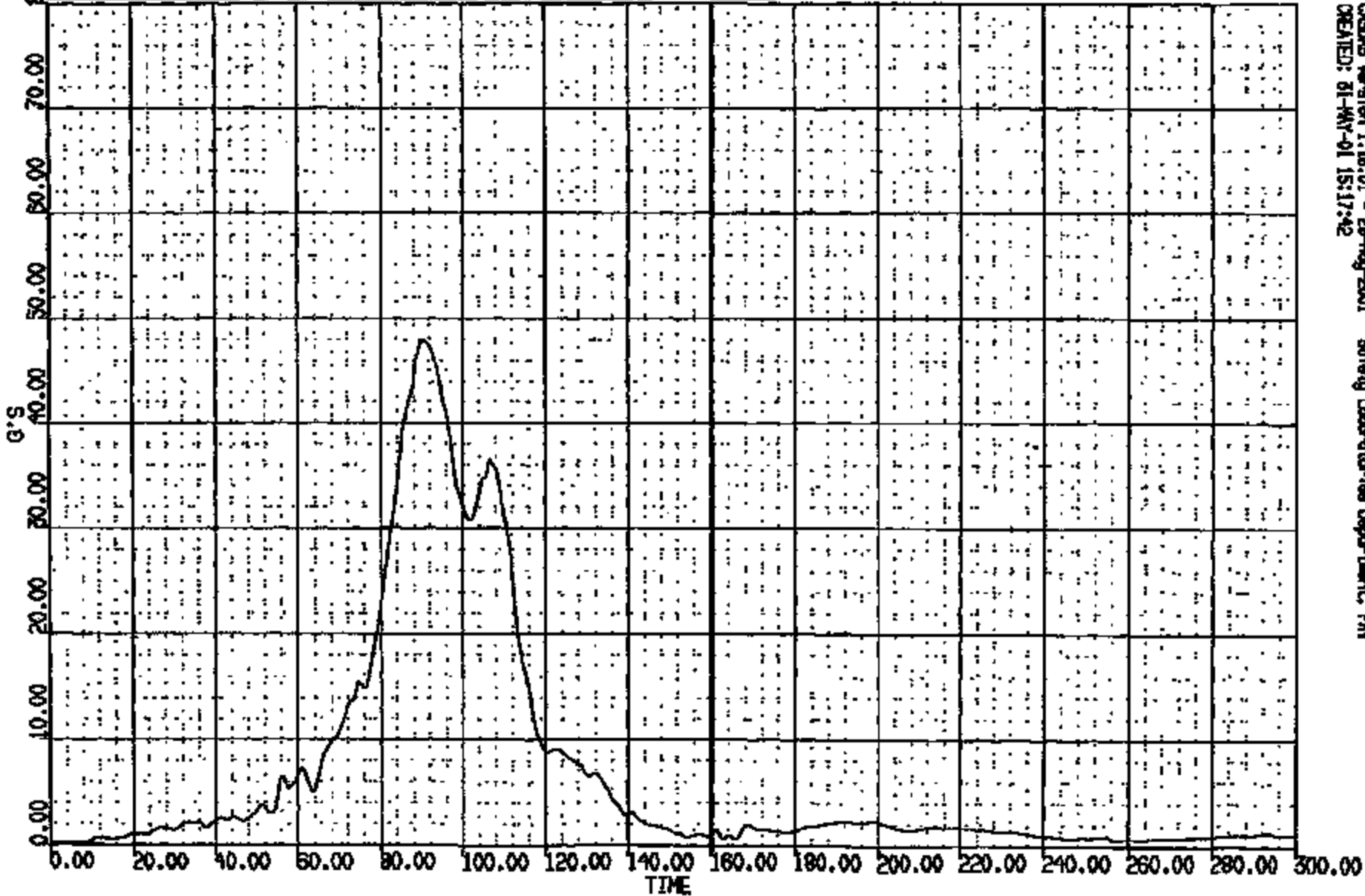


CRS05 Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PAH  
CREATED: 01-MAY-01 17:02:47

CRIS 0012050

TC: 12050 TO: TC1775 DATE: 001021 15:58:18  
RC: 0188  
CUMDUR = 47.078 Duration time = 2.0000

(10000) CR12050T R/F DUMMY CHEST RES 180N  
MAX = 47.89 at 90.32 MS MIN = 0.6701E-04 at 0.0000E+00 MS **AXIS 1**



CASIMS Version 1.18.01 - 28-Aug-2001 Safety Laboratories Department, PIW  
CREATED: 01-MAY-01 15:17:42

CRTS 0012050

R: 12050 TO: TC1776 DATE: 00102 15:59:16  
BUJO D196

(28) CR12050T R/F DUMMY CHEST VERT 180N

MAX = 19.39 at 85.46 MS MIN = -5.619 at 56.09 MS

AXIS 1

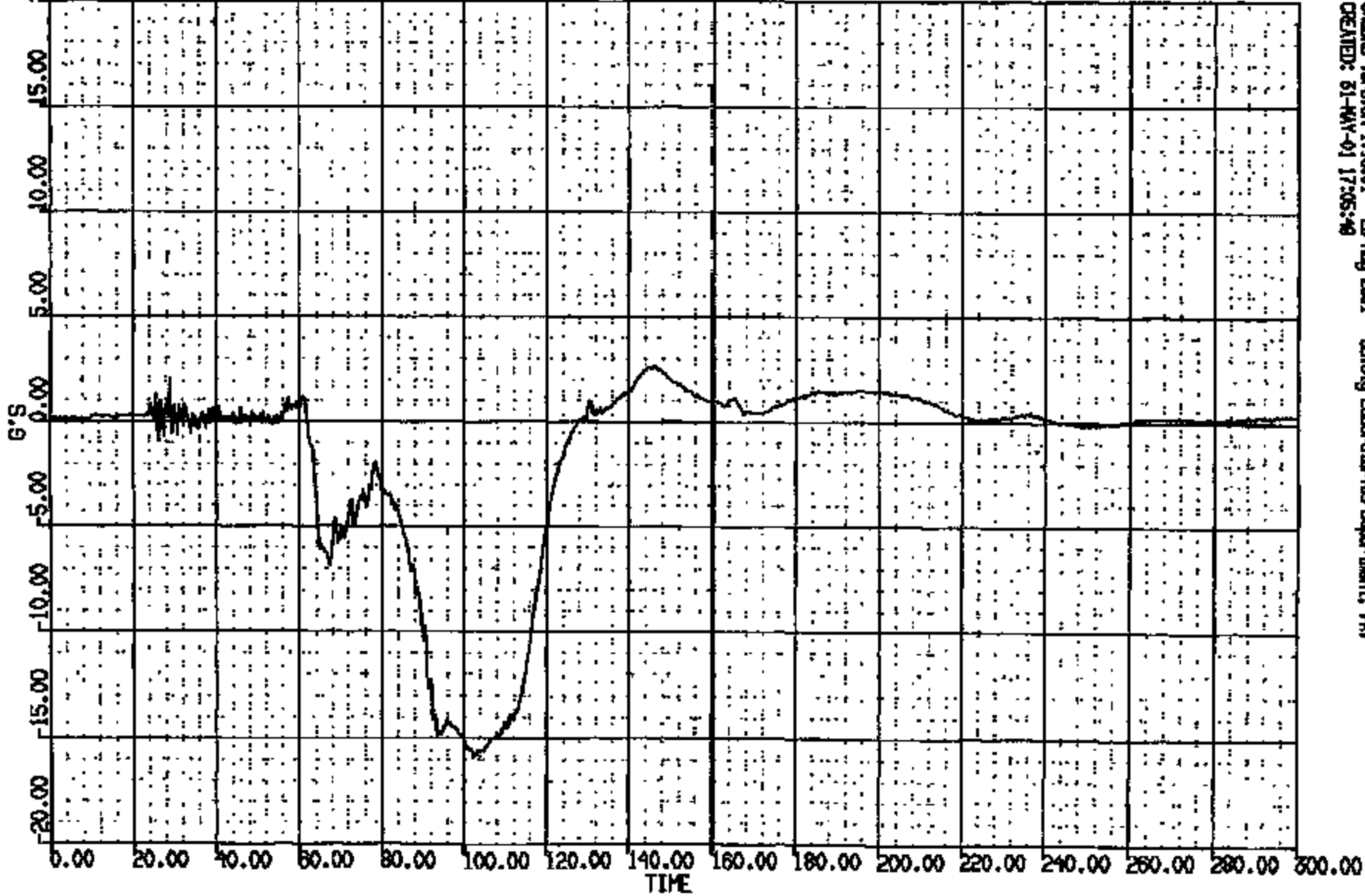


CHDS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 01-MAY-01 17:02:01

CRIS 0012050

C R: 12050 TO: TC1775 DATE: 00108 13:50:16  
P. JO D188

(23) CR12050T R/F DUMMY HEAD C.G. LAT 1000N  
MAX = 2.056 at 146.5 MS MIN = -15.89 at 102.2 MS **AXIS 1**

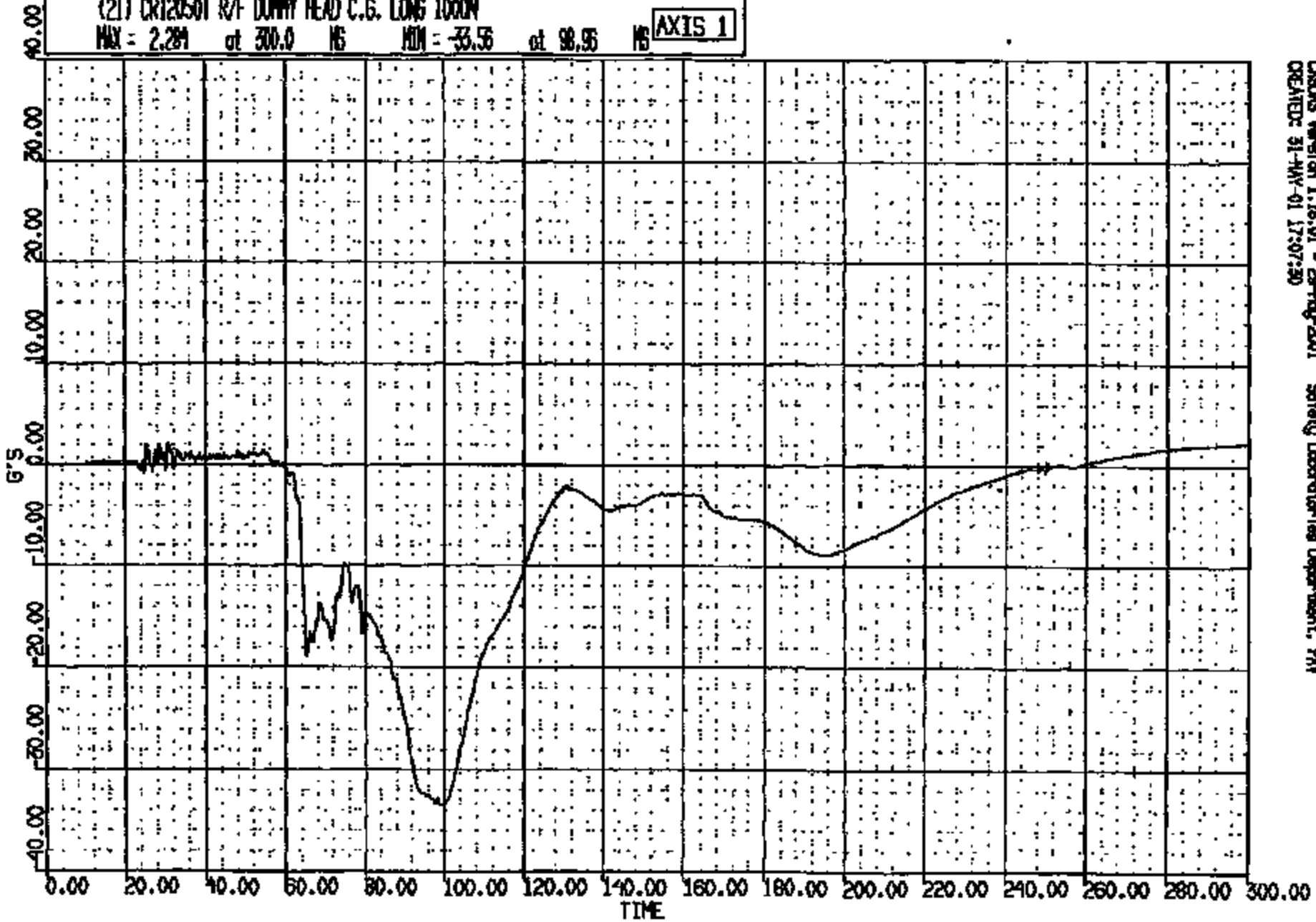


CRIDAS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 01-MAY-01 17:05:48

CRTS 0012050

CR: 12050 TO: TC1775 DATE: 00102 15:58:18  
BUJO 0188

(21) CR12050T R/F DUMMY HEAD C.G. LONG 1000N  
MAX = 2.281 at 300.0 MS MIN = -33.56 at 98.95 MS **AXIS 1**

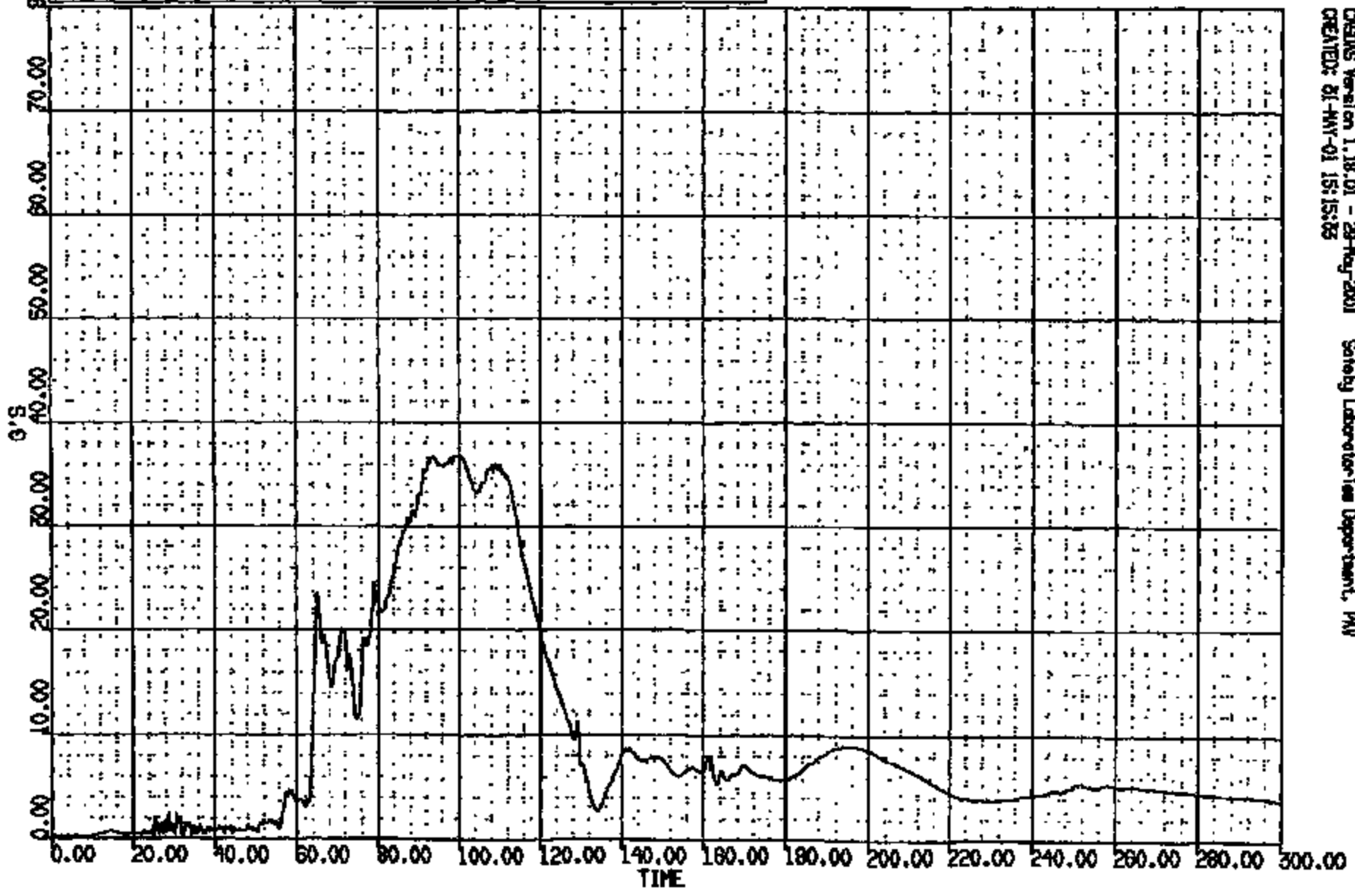


CHDS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 31-MAY-01 17:07:30

CRIS 0012050

#: 12050 TO: TC1775 DATE: 00102 15:59:16  
 D188  
 DUR: 240.0 T1/T2: 76.3 // 121.  
 DUR: 59.0 T1/T2: 92.1 // 118.  
 DUR: 15.0 T1/T2: 90.9 // 108.

(10001) CR12050T R/F DUMBY HEAD C.G. RES 1000N  
 MAX = 35.79 at 98.96 MS MIN = 0.4711E-01 at 0.320 MS **AXIS 1**



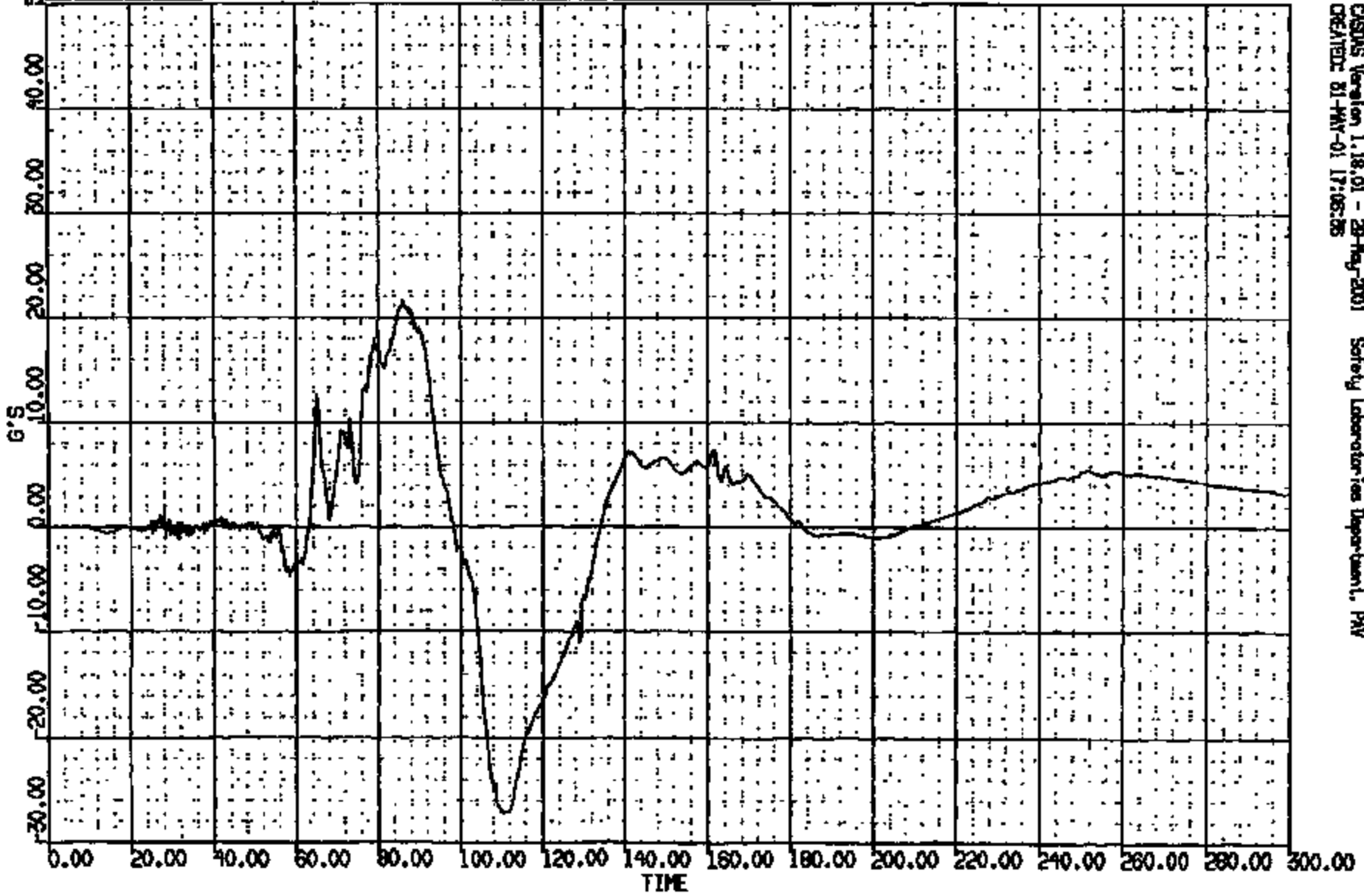
CRESIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
 CREATED: 01-MAY-01 15:15:35

CRIS 0012050



TO: 12050 TO: TC1775 DATE: 001026 3:59:16  
RCVO D188

(22) CR12050T R/F DUMMY HEAD C.G. VERT 1000N  
MAX = 21.61 at 86.16 MS MIN = -27.17 at 110.7 MS **AXIS 1**

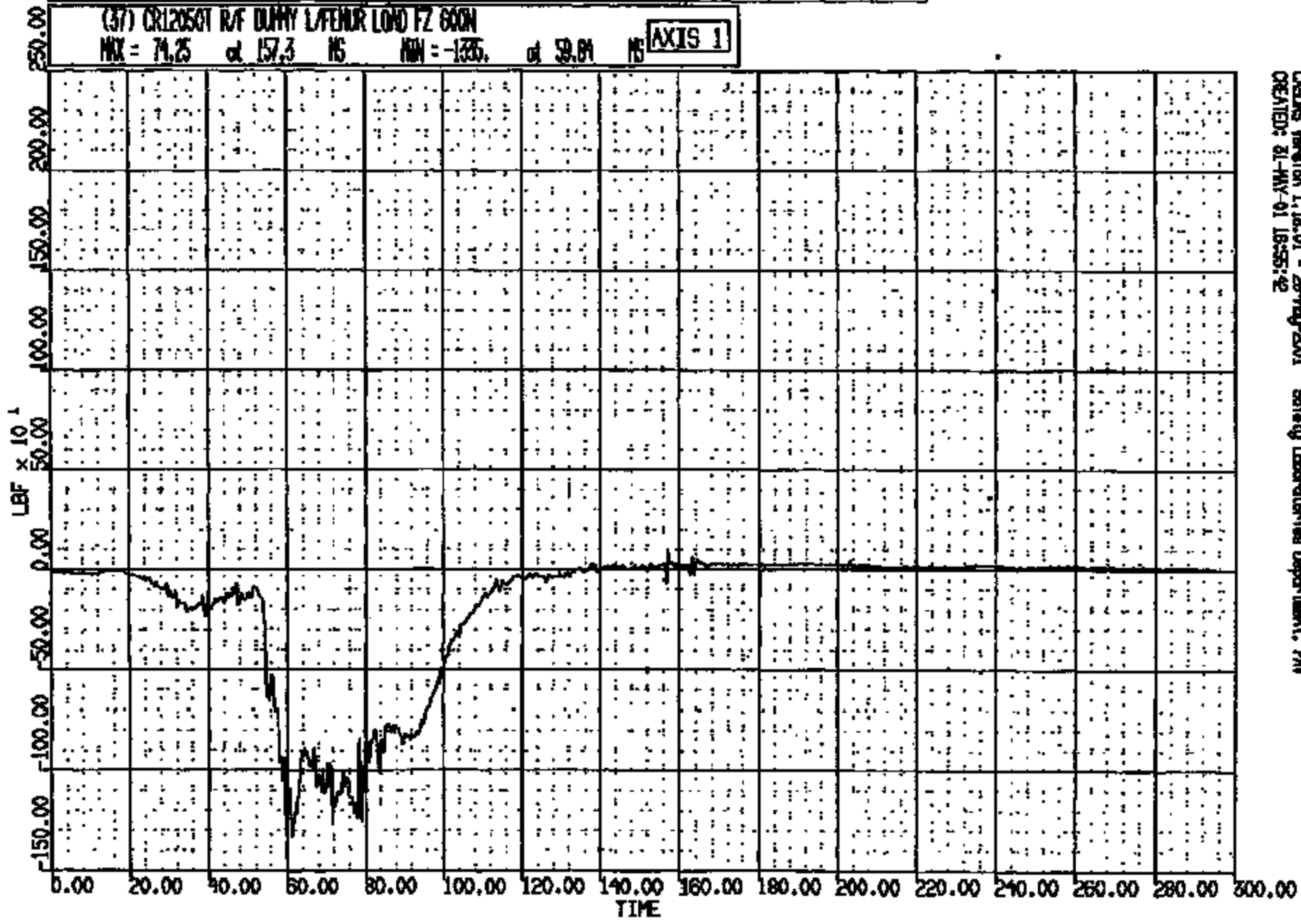


CASINS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 01-MAY-01 17:05:26

CRIS 0012050

CR: 12050 TO: TC1775 DATE: 0010Z 15:52:18  
2000 DISB

(37) CR120501 R/F DUMMY LATERAL LOAD FZ 600N  
MAX = 71.25 at 157.3 NS MIN = -135. at 59.84 NS **AXIS 1**

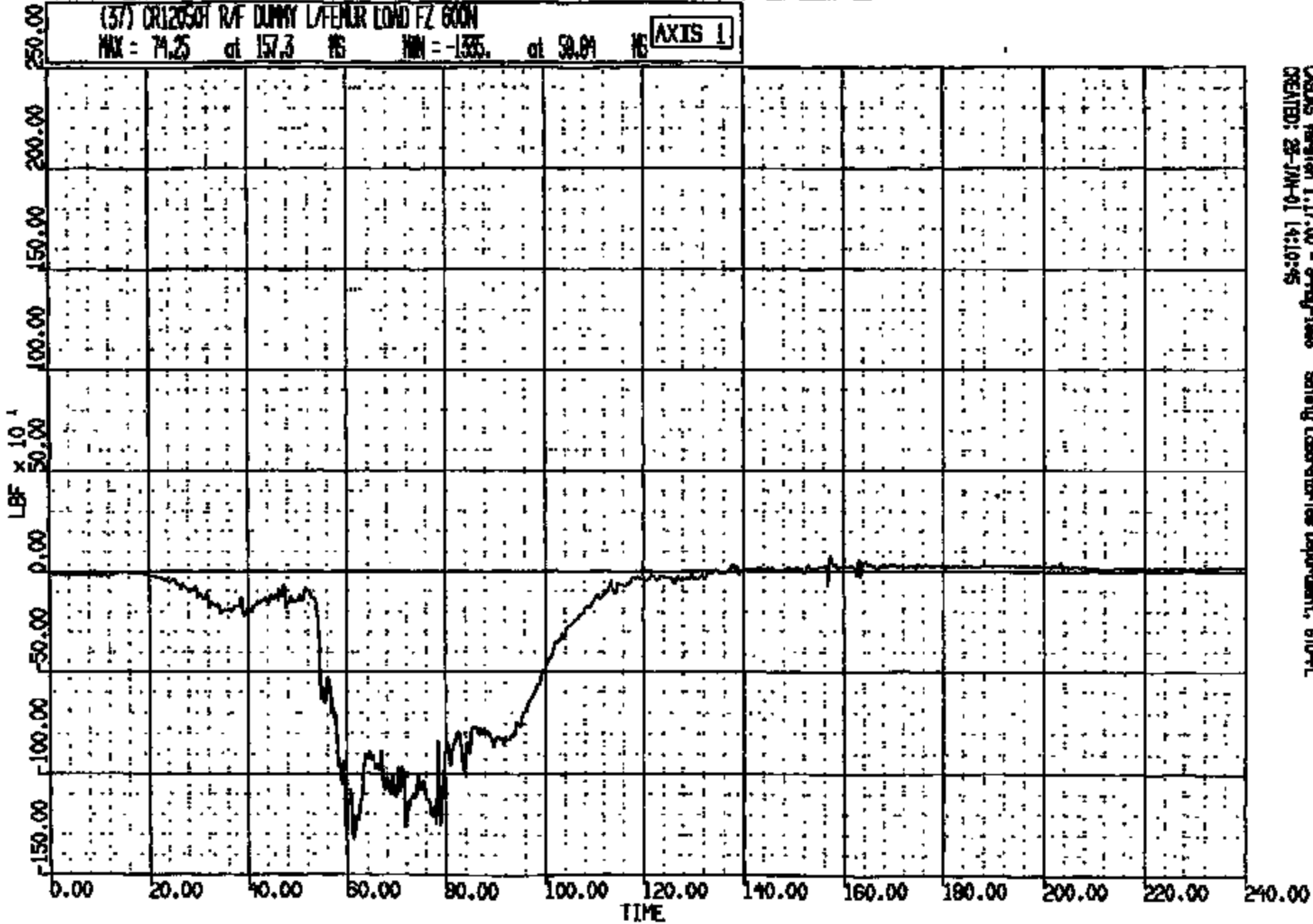


CHENAS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 21-MAY-01 18:55:42

CRIS 0012050

CR: 12050 TO: TC1775 DATE: 00102 15:59:15  
BUJO D-186

(37) CR12050T R/F DUMMY L/FENR LOAD FZ 600N  
MAX = 74.25 at 157.3 MS MIN = -133.5 at 59.04 MS **AXIS 1**

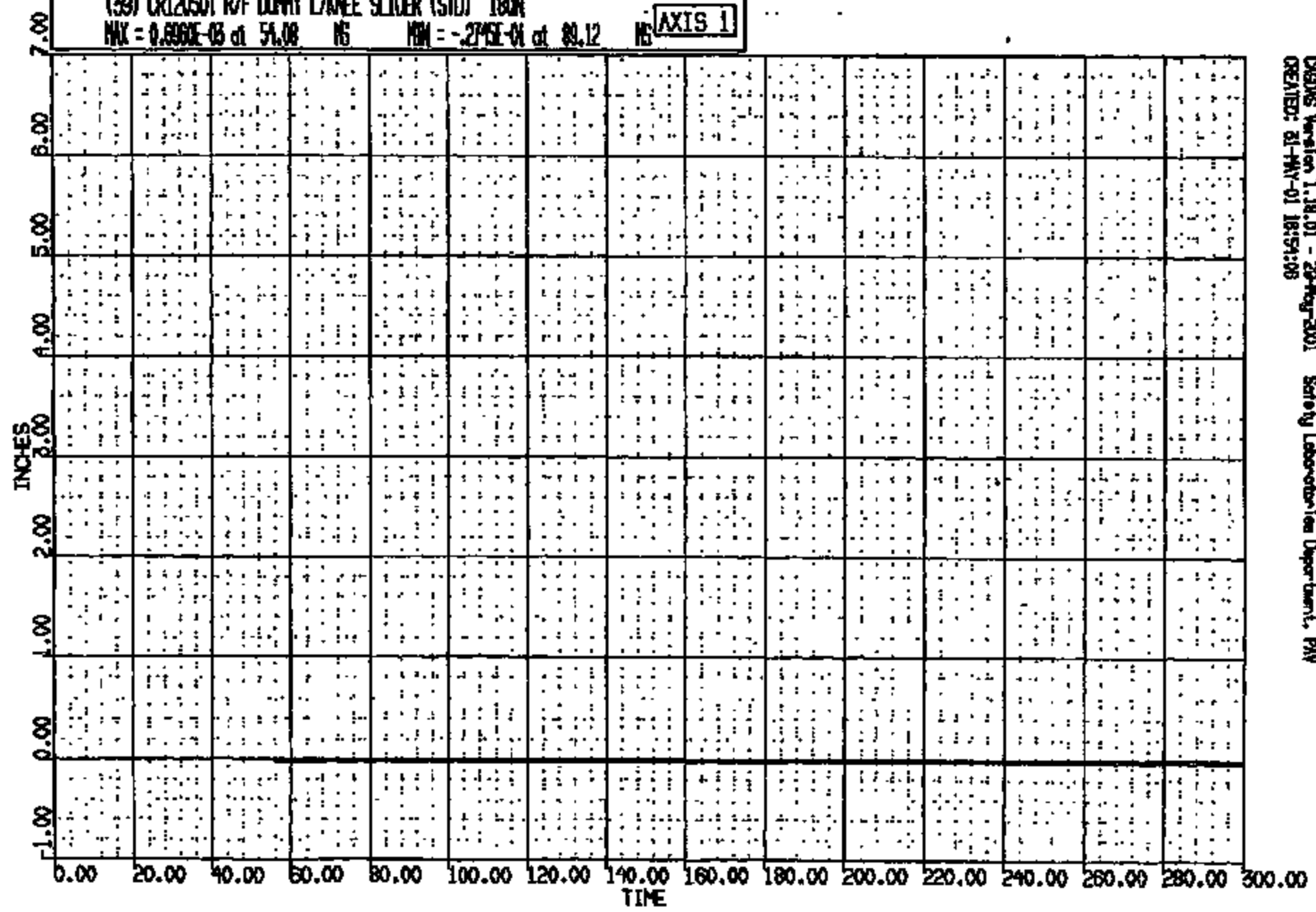


CRSAS Version 1.17.00 - 9-May-1998 Safety Laboratories Department, 610-91  
CREATED: 28-JAN-01 14:10:45

CRIS 0012050

CR: 12050 TO: TC1778 DATE: 00102 15:59:16  
BUJO D199

(39) CR12050T R/F DUMMY L/KNEE SLIDER (STD) 180N  
MAX = 0.000E-03 at 54.08 NS MIN = -.2745E-04 at 89.12 NS **AXIS 1**

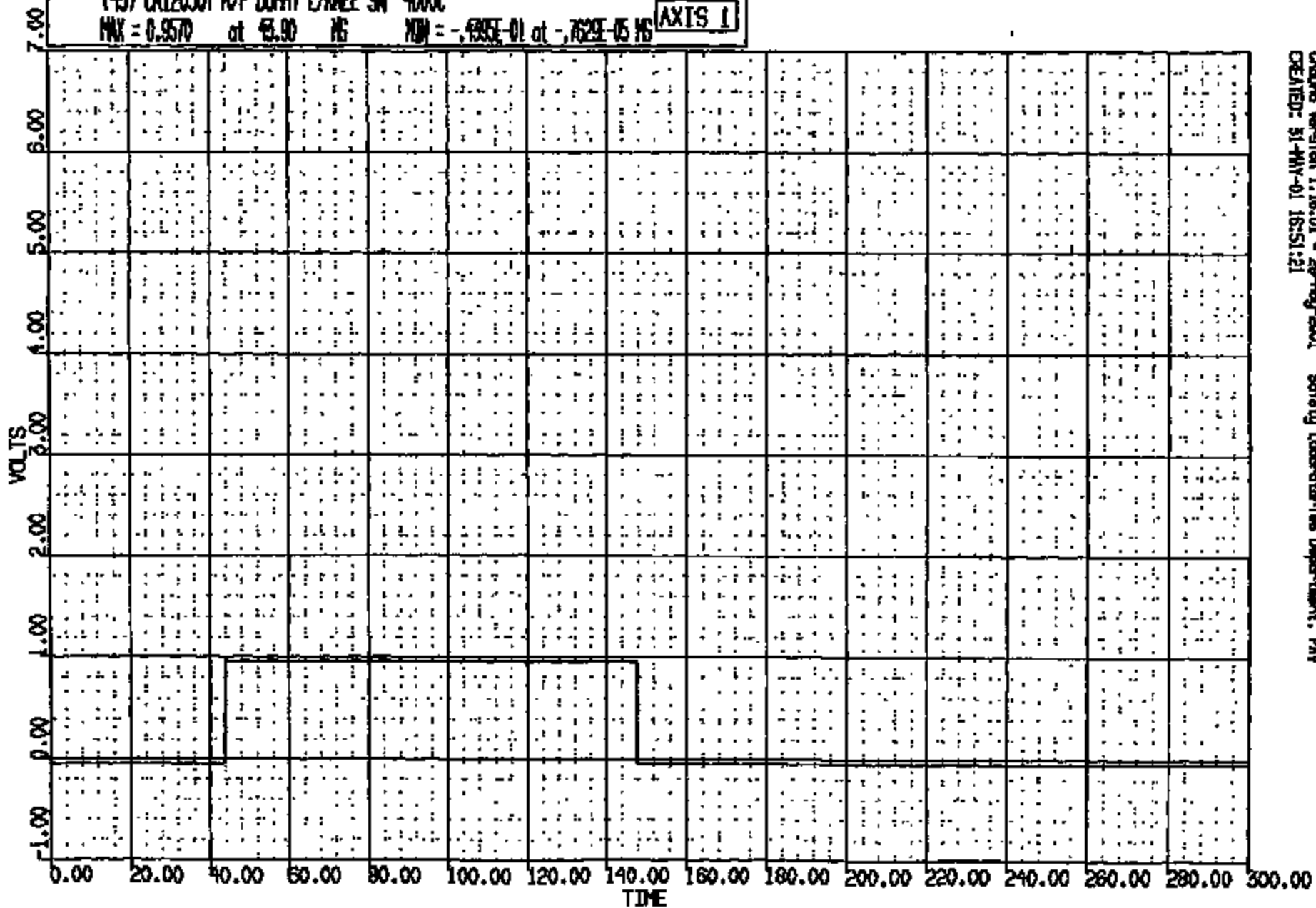


CRAMS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PNY  
CREATED: 01-MAY-01 16:54:08

CRIS 0012050

CASE: 12050 TO: TC1YYS DATE: 001021 13:58:16  
2000 0188

(45) CR120501 R/F DUMMY L/NEE SN 4000  
MAX = 0.9570 at 45.00 MS MIN = -.4935-01 at -.7629-05 MS **AXIS 1**

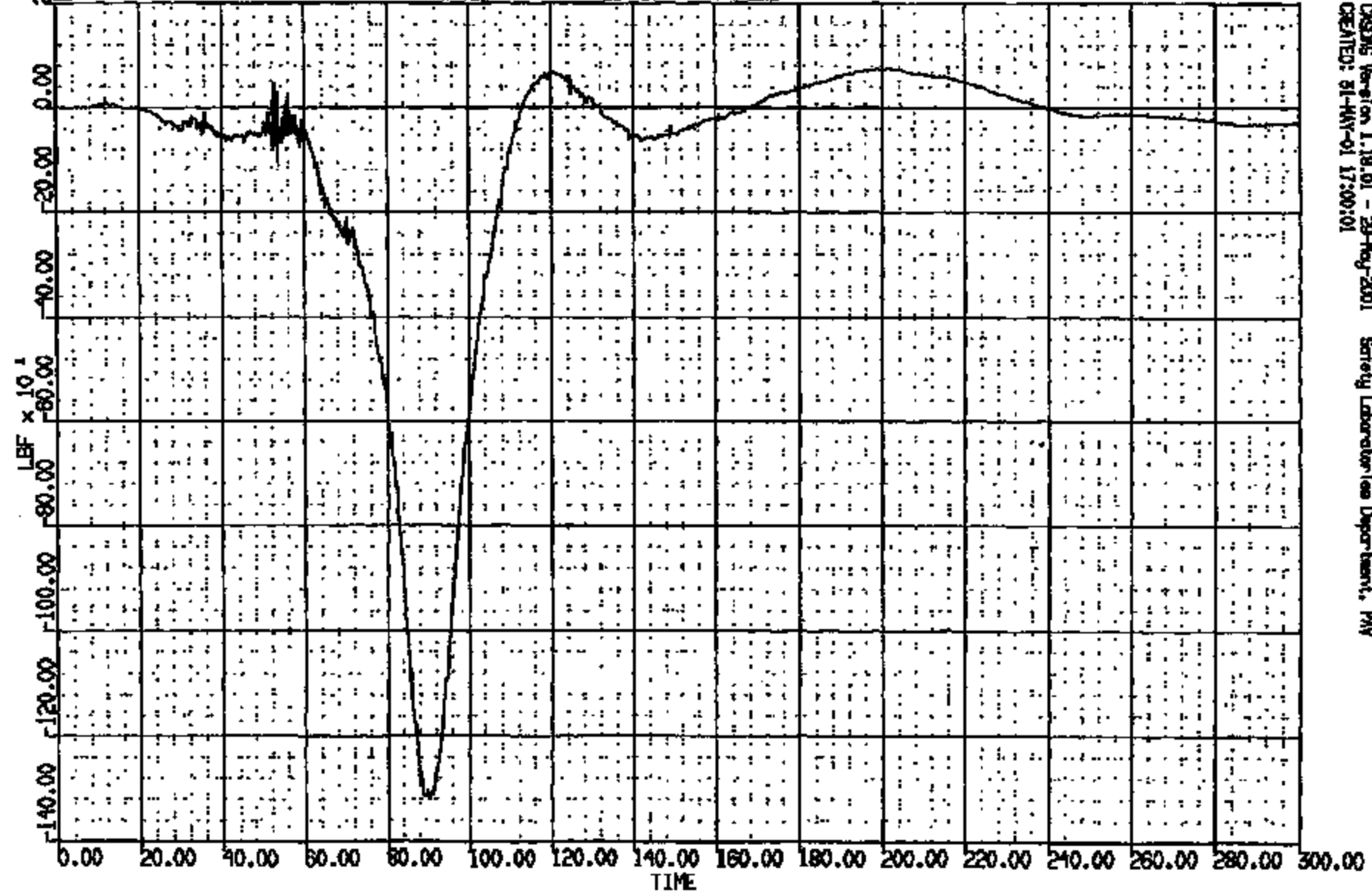


CASIMS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, DNV  
CREATED: 51-MAY-01 16:51:21

CRIS 0012050

NO: 12050 TO: TC1775 DATE: 001021 5:59:18  
2000 0189

(31) CR12050T R/F DUMMY LUMBAR SPINE LOAD FX 1000N  
MAX = 77.41 at 198.9 MS MIN = -132.1 at 80.24 MS **AXIS 1**

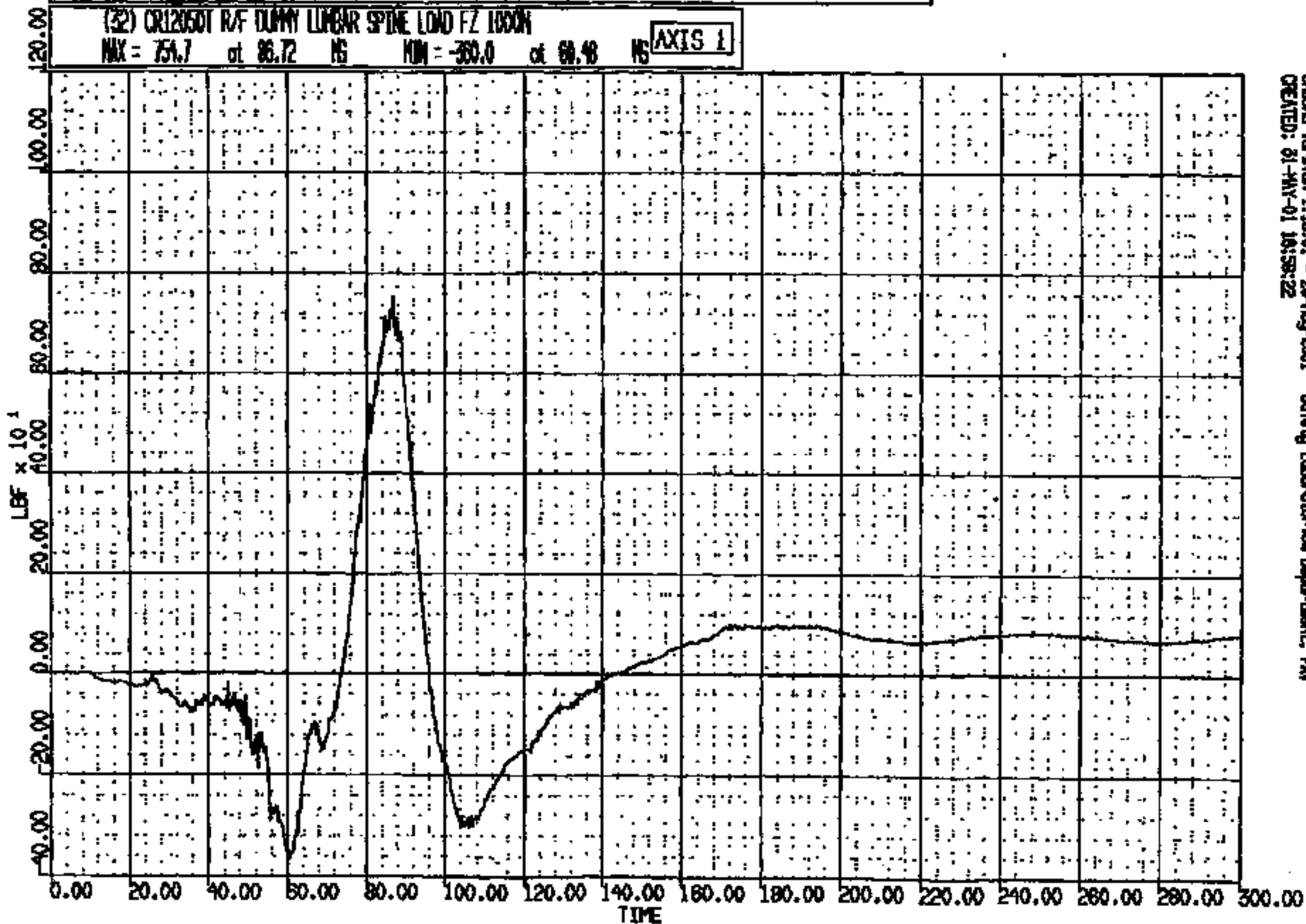


CRSIS Version 1.19.01 - 29-May-2001 Safety Laboratories Department, PAV  
CREATED: 31-MAY-01 17:00:01

CRIS 0012050

CAR: 12050 TO: TC1775 DATE: 00102 13:58:18  
2000 D100

(32) CR120501 R/F DUMMY LINEAR SPINE LOAD FZ 1000N  
MAX = 751.7 at 86.72 MS MIN = -360.0 at 99.48 MS **AXIS 1**

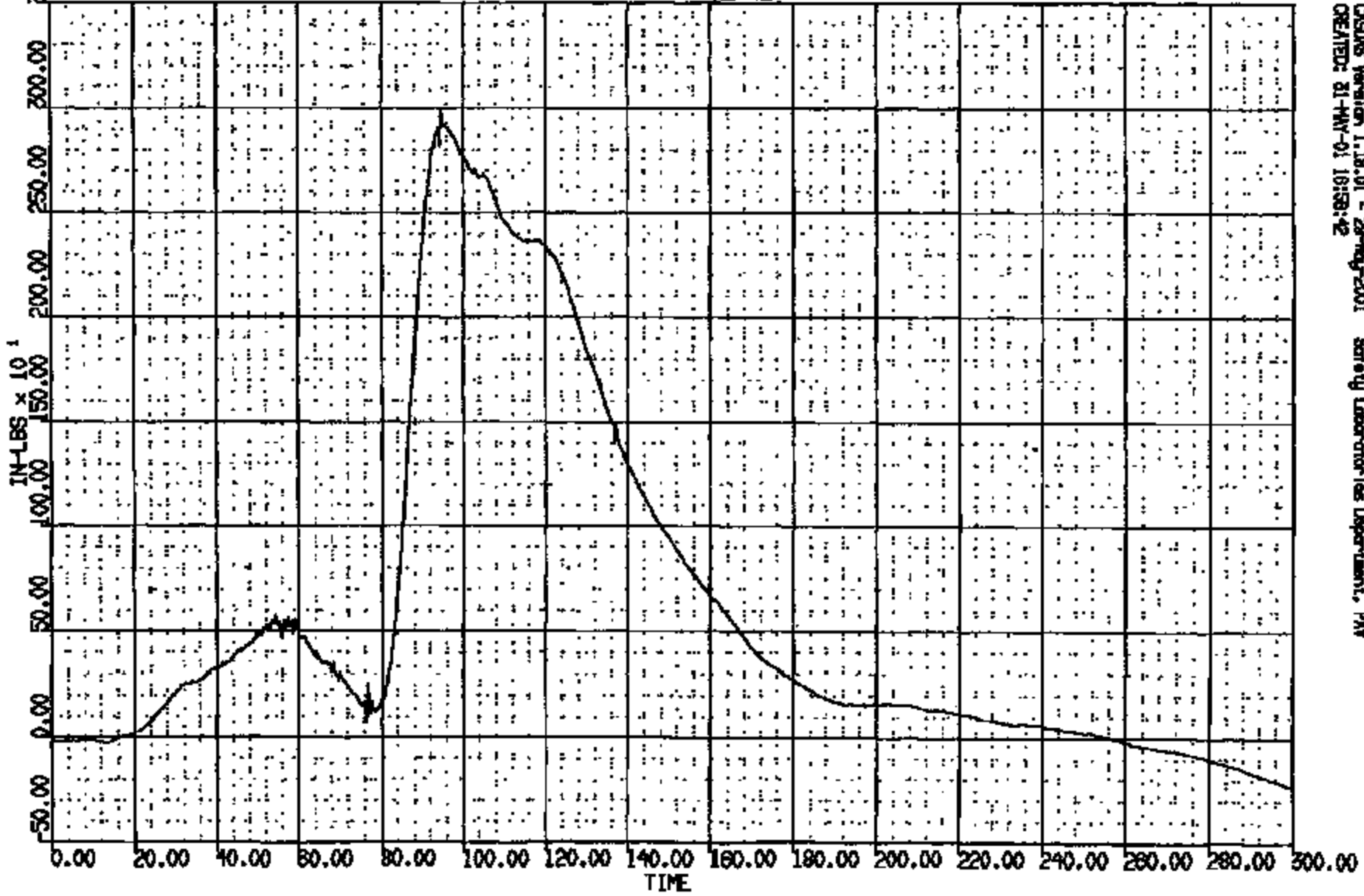


CRS/MS Version 1.18.01 - 29-Aug-2001 Safety Laboratory Department, PMW  
CREATED: 01-MAY-01 16:58:22

CRTS 0012050

CRTS: 12050 TO: TC1775 DATE: 00102 18:58:18  
2000 DISK

(33) CR12050T R/F DUMMY LUMBAR SPINE LOAD BY TOSON  
MAX = 299.1 at 91.04 MS MIN = -234.0 at 300.0 MS **AXIS 1**



CRS016 Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PAW  
CREATED: 21-MAY-01 18:58:42

CRTS 0012050

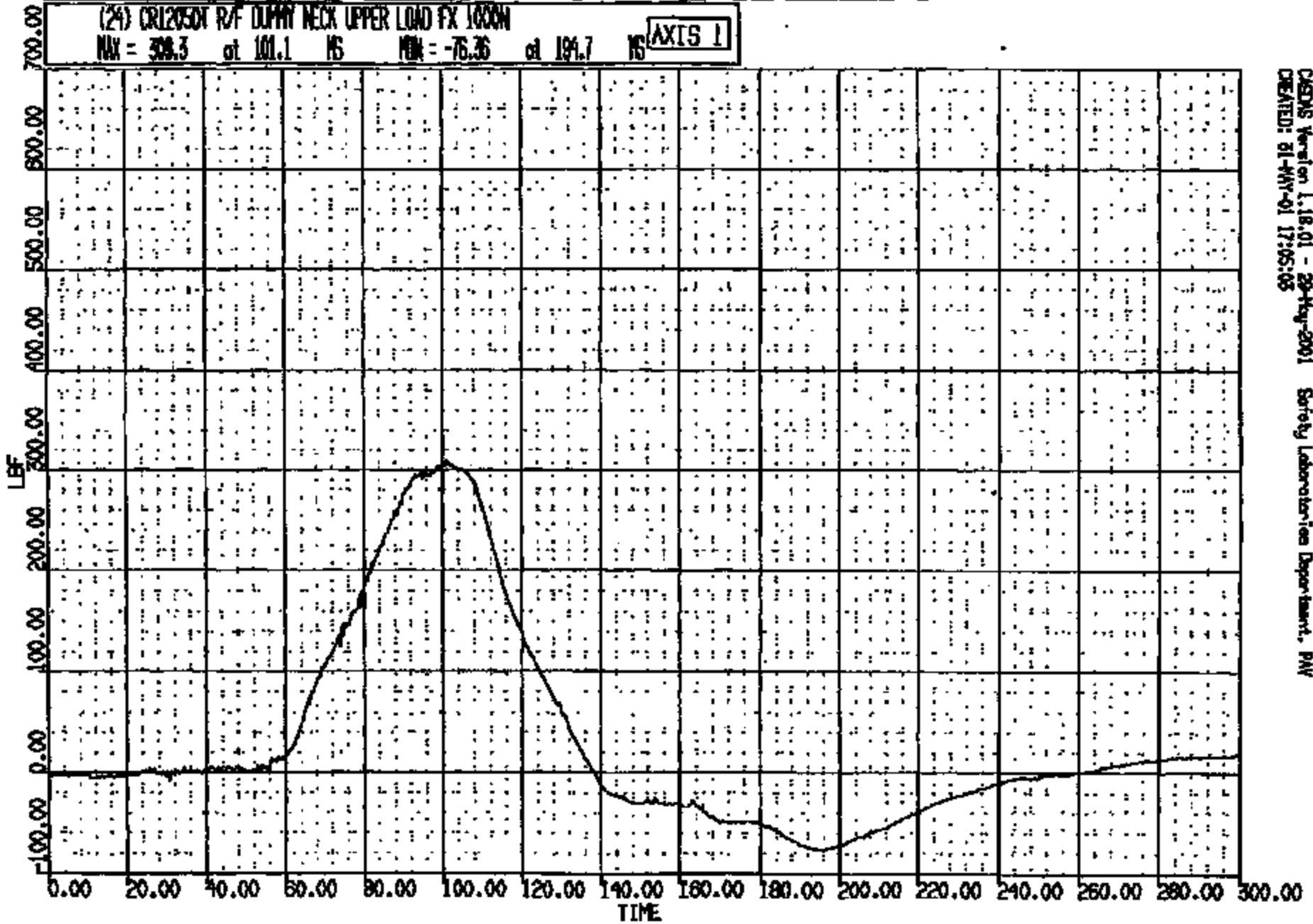


CRTS 12050 TO: TC1775 DATE: 001021 13:50:16  
RCJ0 D100

(24) CRT2050X R/F DUMMY NECK UPPER LOAD FX 1000N

MAX = 308.3 at 101.1 MS MIN = -76.36 at 194.7 MS

AXIS 1

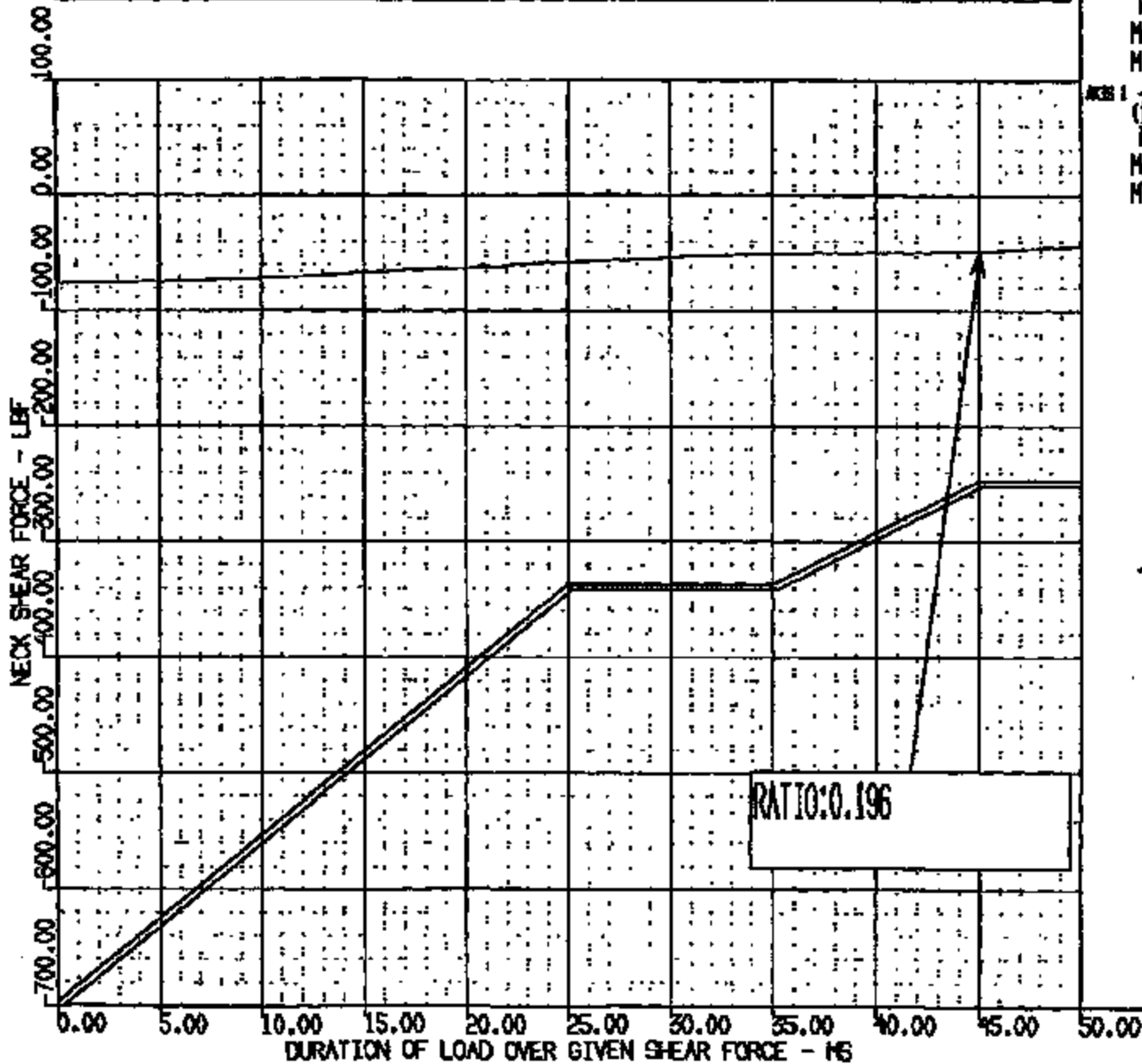


CRSIS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 01-MAY-01 17:05:05

CRTS 0012050

A. NECK WRT HEAD SHEAR FORCE  
 CR R: 12050 TO: TC1775 DATE: 001026 13:59:18  
 HYBRID III CRITERIA PLOT - 50TH X DUMMY  
 DURATION CURVES MAY INCLUDE MULTIPLE PEAKS

FOREIGN



MSG 1

(10308) CRITERIA LINE FOR JFT NECK  
 WRT HEAD SHEAR FORCE

MAX = 247.3 at 45.00 MS

MIN = 696.9 at 0.0000E+00 MS

MSG 1

(10308) DURATION CRITERIA OF DUMMY  
 NECK UPPER LOAD FX 100

MAX = 0.0000E+00 at 0.0000E+00 MS

MIN = 76.36 at 0.7989E-01 MS

CREATION Version 1.17.00 - 8-May-1988  
 CREATED: 25-JAN-01 14:00:45

Safety Laboratories Department, GTD-PL

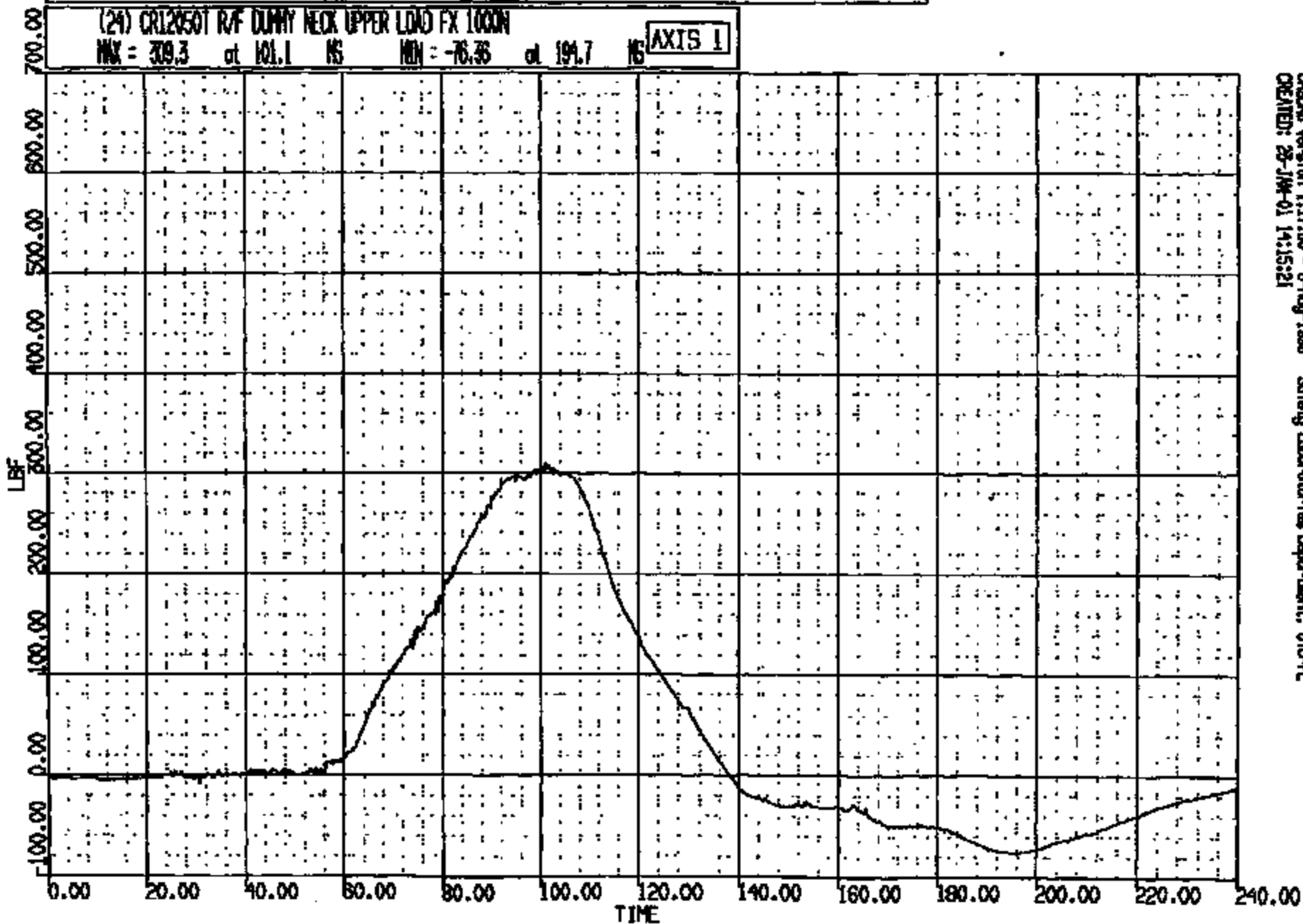
CRITS 0012050

CR : 12050 TO: TC1776 DATE: 001021 3:59:19  
BOVO D-189

(24) CR12050T R/F DUMMY NECK UPPER LOAD FX 1000N

MAX = 309.3 at 101.1 MS MIN = -76.36 at 191.7 MS

AXIS 1

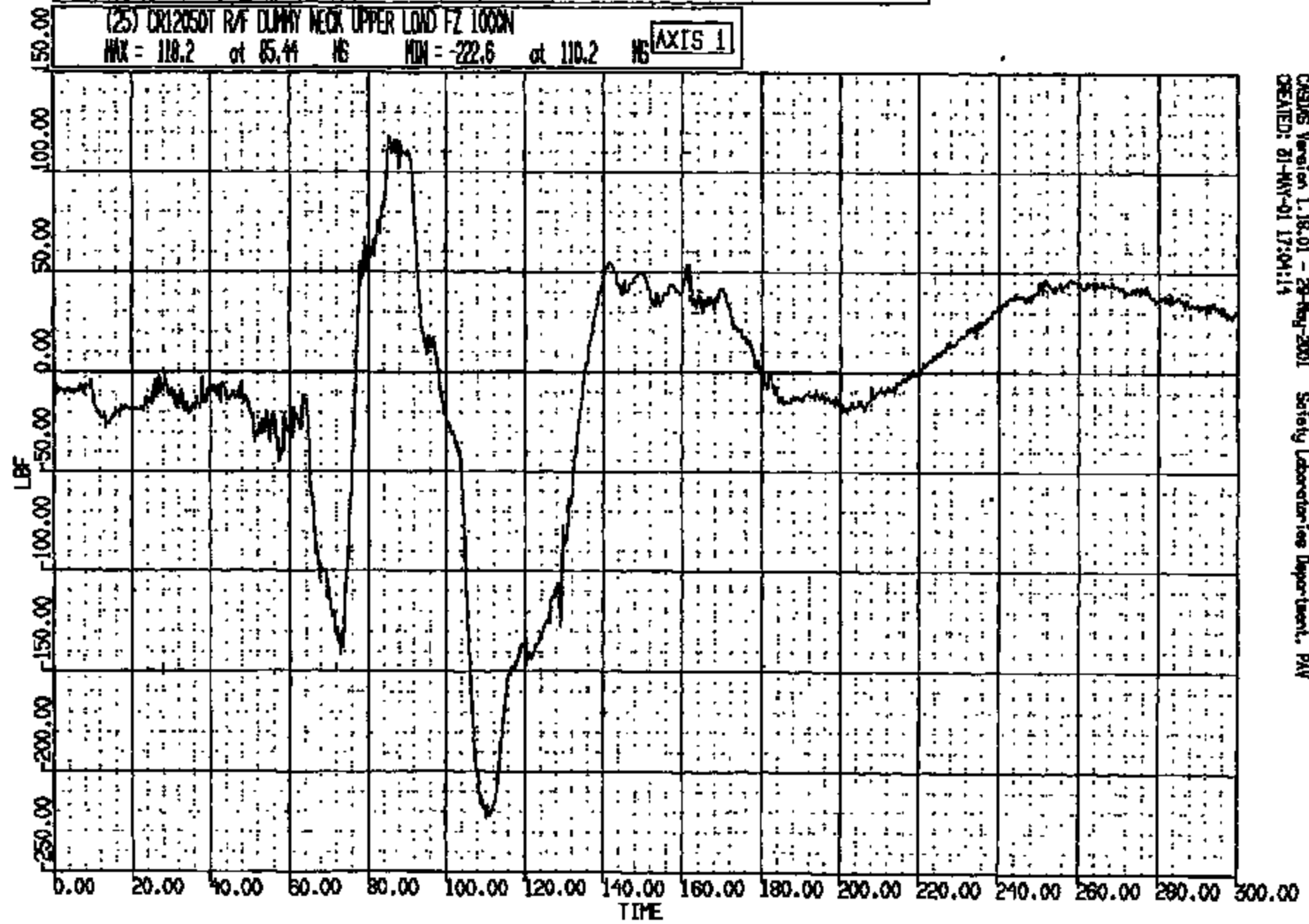


CRSIS Version 1.17.00 - 8-May-1989 Safety Laboratories Department, 610-PL  
CREATED: 28-JAN-01 14:15:21

CRIS 0012050

CR: 12050 TO: TC1775 DATE: 00102 15:59:16  
BUJO D185

(25) CR12050T R/F DUMMY NECK UPPER LOAD FZ 1000N  
MAX = 118.2 at 85.44 MS MIN = -222.6 at 110.2 MS **AXIS 1**

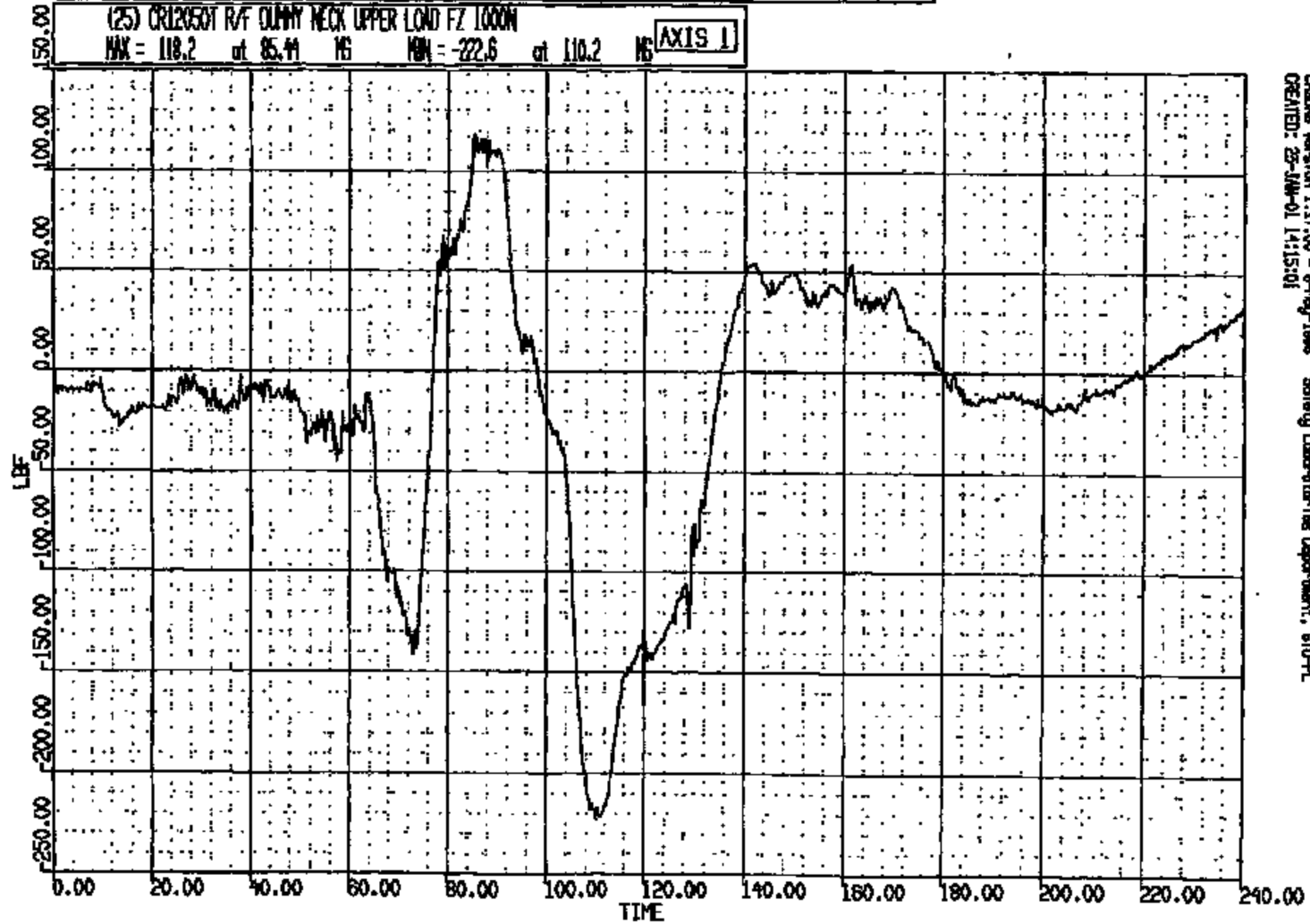


CRS/MS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 21-MAY-01 17:04:14

CRIS 0012050

CR: 12050 TO: TC1775 DATE: 001021 15:59:18  
R000 D-188

(25) CR120501 R/F DUMMY NECK UPPER LOAD FZ 1000N  
MAX = 118.2 at 85.41 MS MIN = -222.6 at 110.2 MS **AXIS 1**



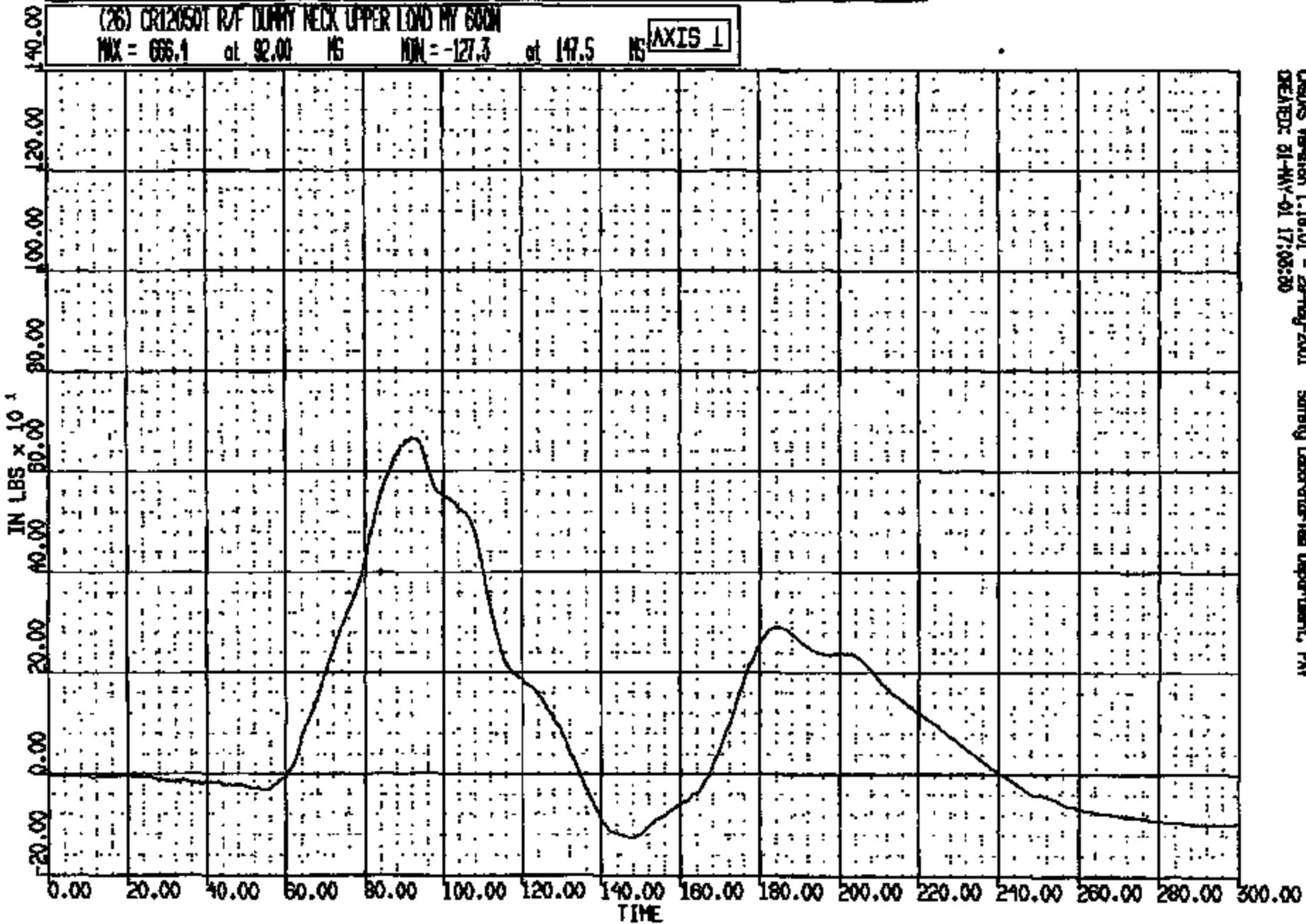
CRASH Version 1.17.00 - 8-May-1998 Safety Laboratories Department, STD-PL  
CREATED: 23-JUN-01 14:15:01

CRTS 0012050

CASE: 12050 TO: TC1775 DATE: 00102 15:59:18  
2000 D188

(26) CR12050T R/F DUMMY NECK UPPER LOAD MY 600M

MAX = 666.1 at 92.00 MS MIN = -127.3 at 147.5 MS **AXIS 1**



CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 01-MAY-01 17:08:30

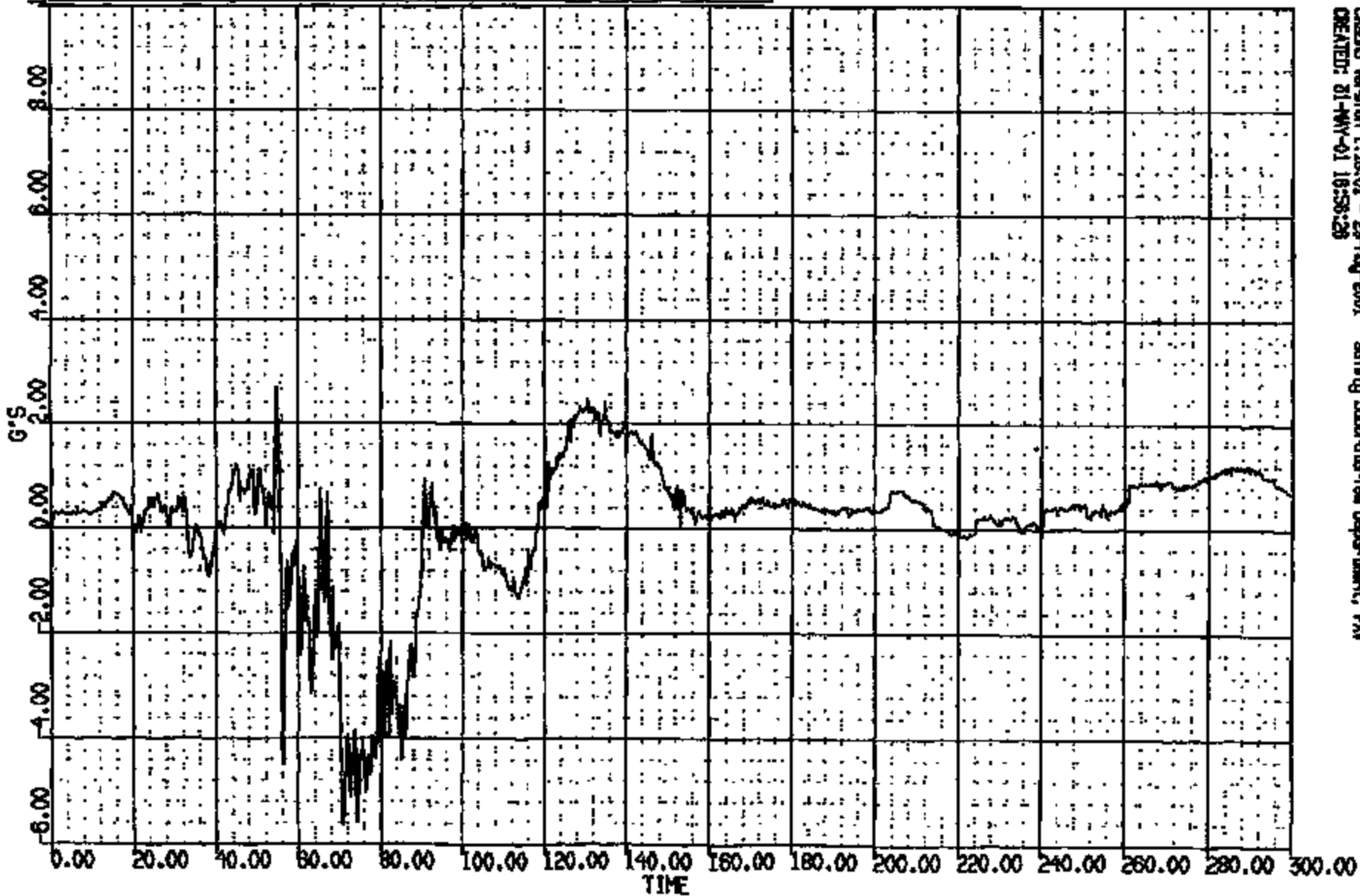
CRIS 0012050

CRI: 12050 TO: TC1775 DATE: 001021 05:59:18  
2000 D188

(36) CRI2050T R/F DUMMY PELVIS LAT 1000N

MAX = 2.692 at 51.72 MS MIN = -5.695 at 70.95 MS

AXIS 1

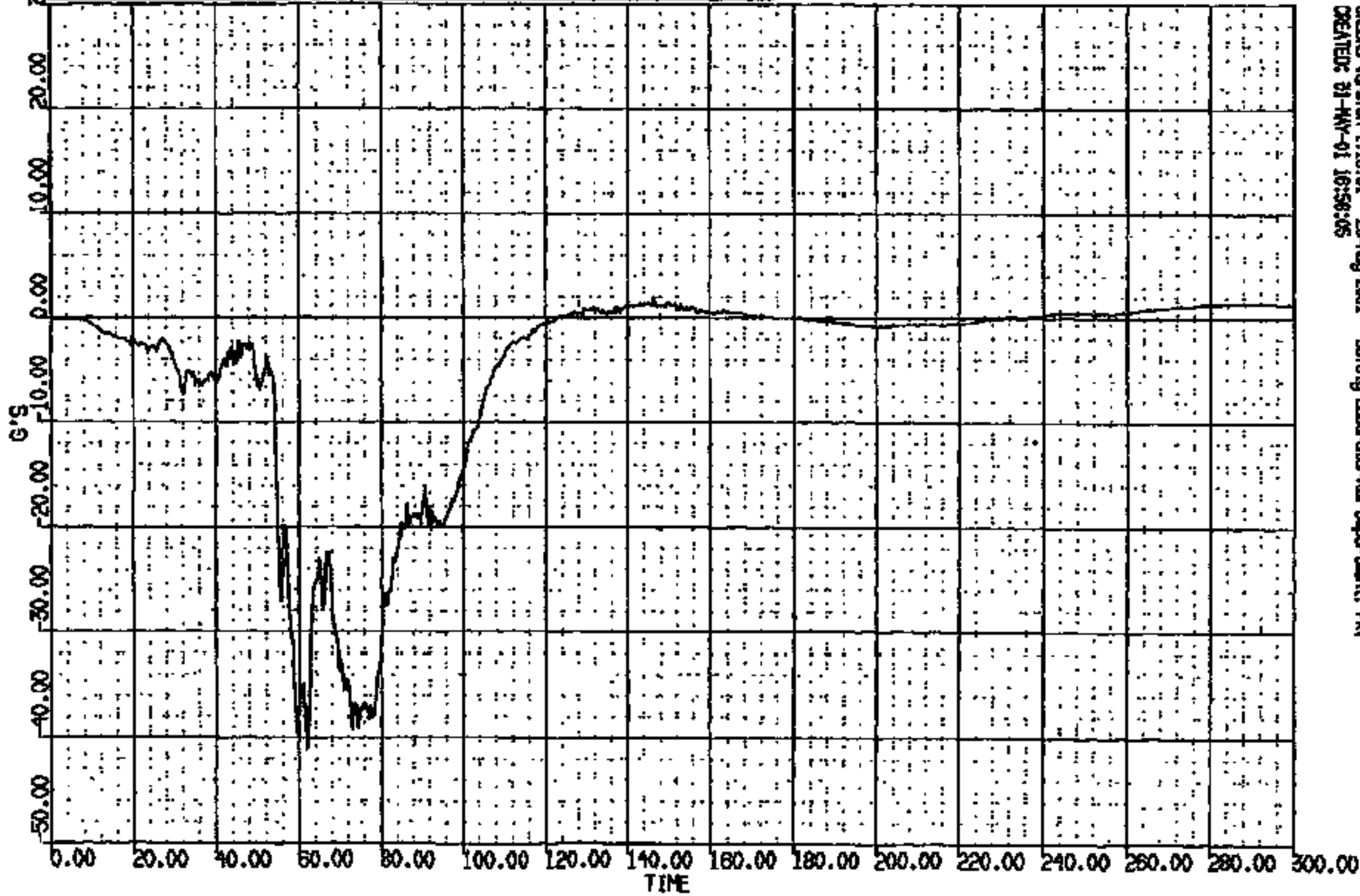


CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNNL  
CREATED: 01-MAY-01 18:58:28

CRIS 0012050

01: 12050 TO: TC1775 DATE: 001021 3:59:16  
2000 D188

(34) CR12050T R/F DUMMY PELVIS LONG 1000N  
MAX = 2.012 at 146.3 MS MIN = -41.12 at 61.92 MS **AXIS 1**



CRS06 Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 31-MAY-01 16:58:05

CRTS 0012050

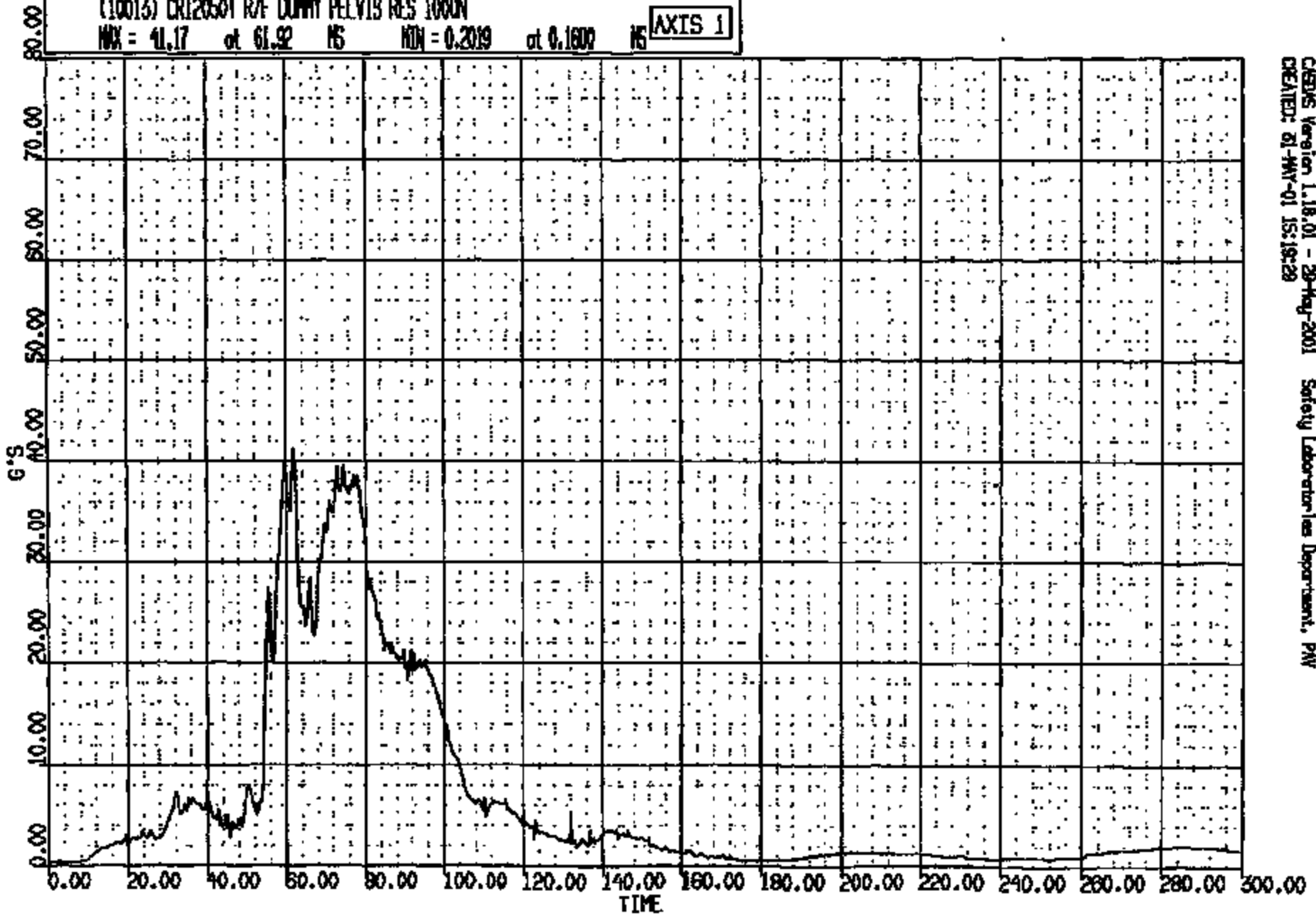


C R: 12050 TO: TC1775 DATE: 00102 13:59:16  
2000 D186

(10013) CR12050T R/F DUMMY PELVIS RES 1000N

MAX = 41.17 at 61.92 MS MIN = 0.2019 at 0.1600 MS

AXIS 1

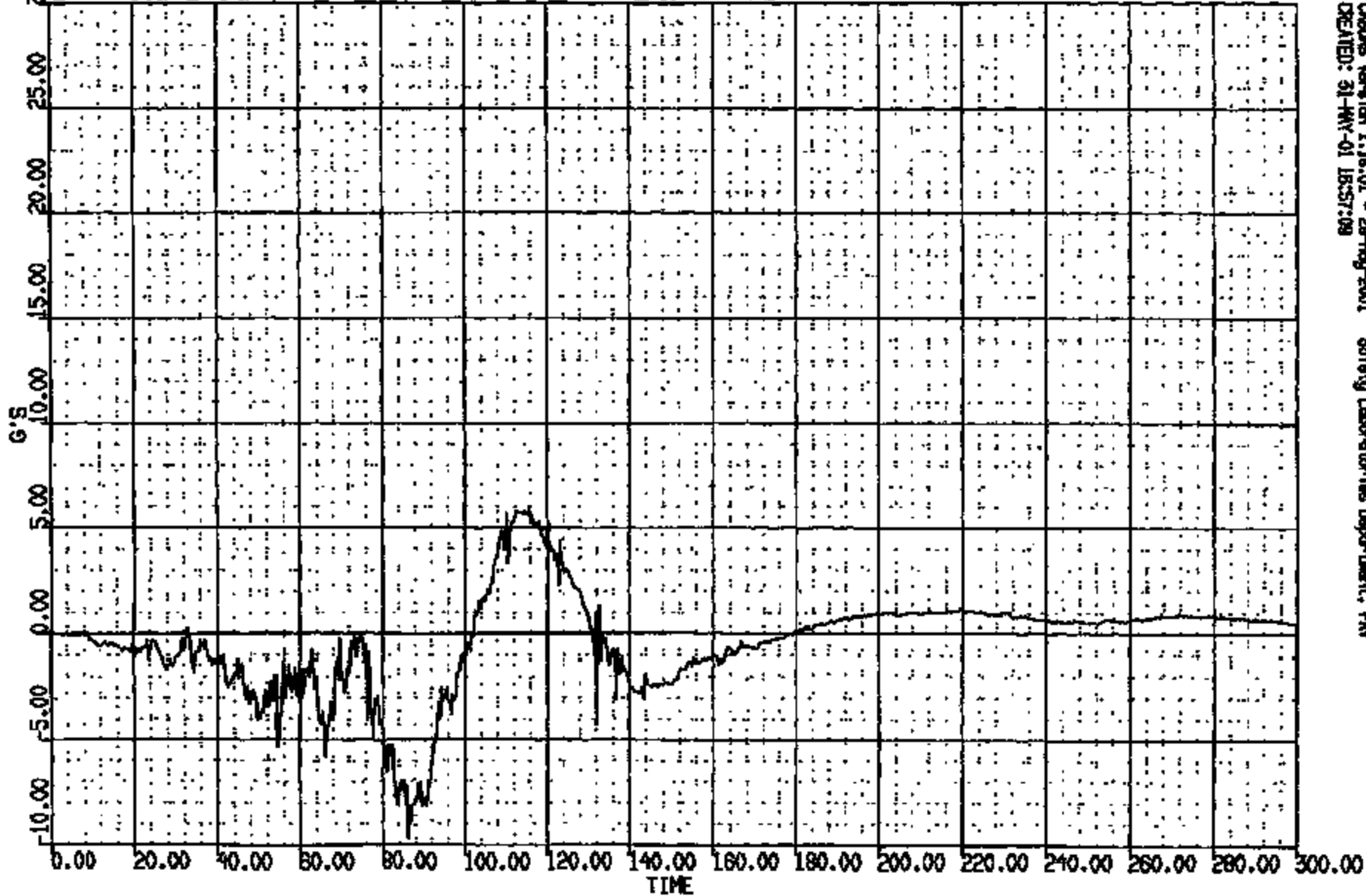


CRS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 01-MAY-01 15:19:29

CRIS 0012050

C R: 12050 TC: TC1778 DATE: 00102 13:59:18  
2000 D188

(35) CR120501 R/F DUMMY PELVIS VERT 1000N  
MAX = 5.955 at 115.7 MS MIN = -9.727 at 86.24 MS **AXIS 1**

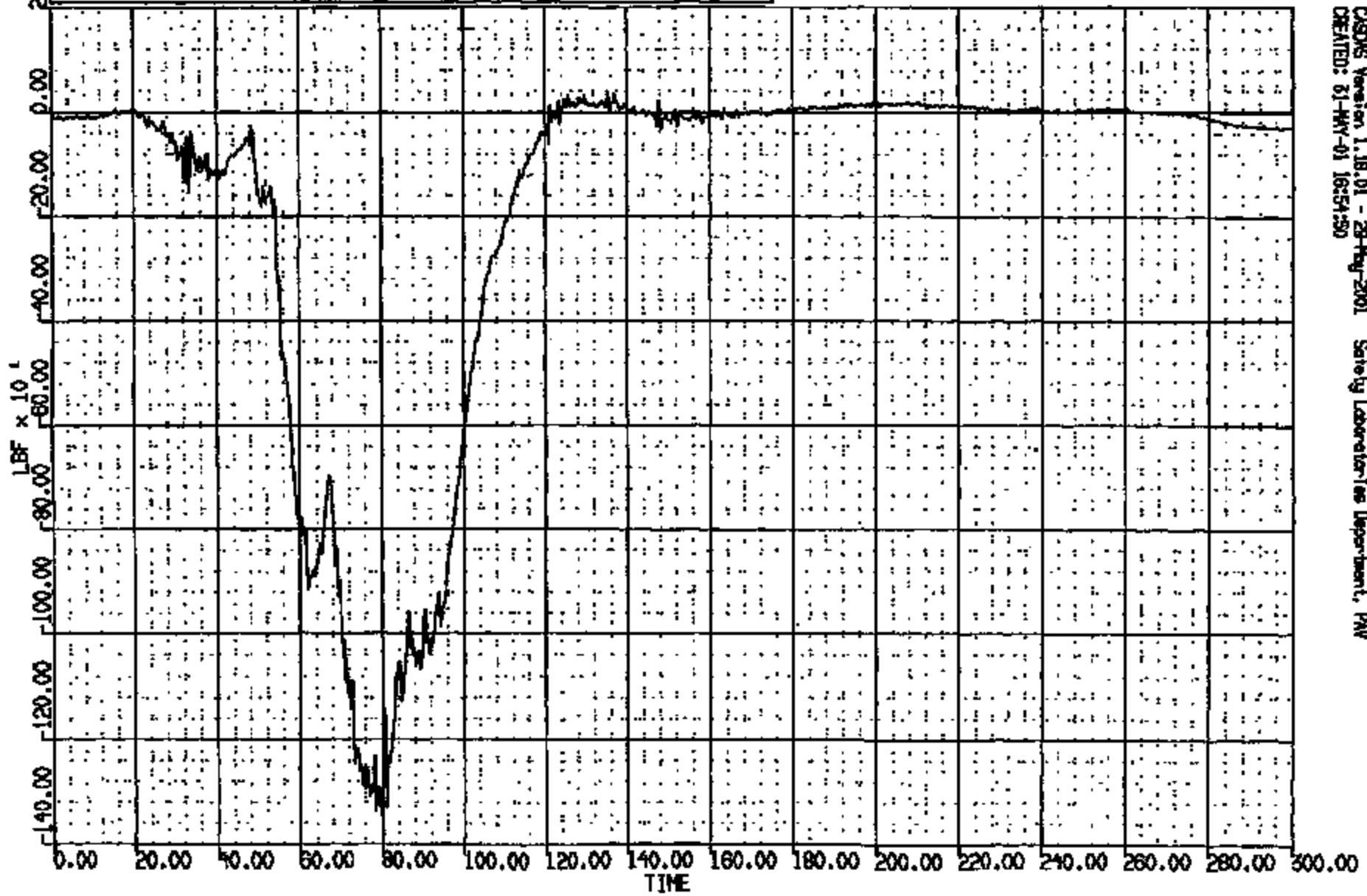


CASDS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAN  
CREATED: 31-MAY-01 18:57:99

CRTS 0012050

C R: 12050 TO: TC1775 DATE: 00102 13:59:18  
2000 D188

(38) CR120501 R/F DUMMY R/FEMUR LWD FZ 600N  
MAX = 35.05 at 135.4 MS MIN = -134.6 at 79.76 MS **AXIS 1**

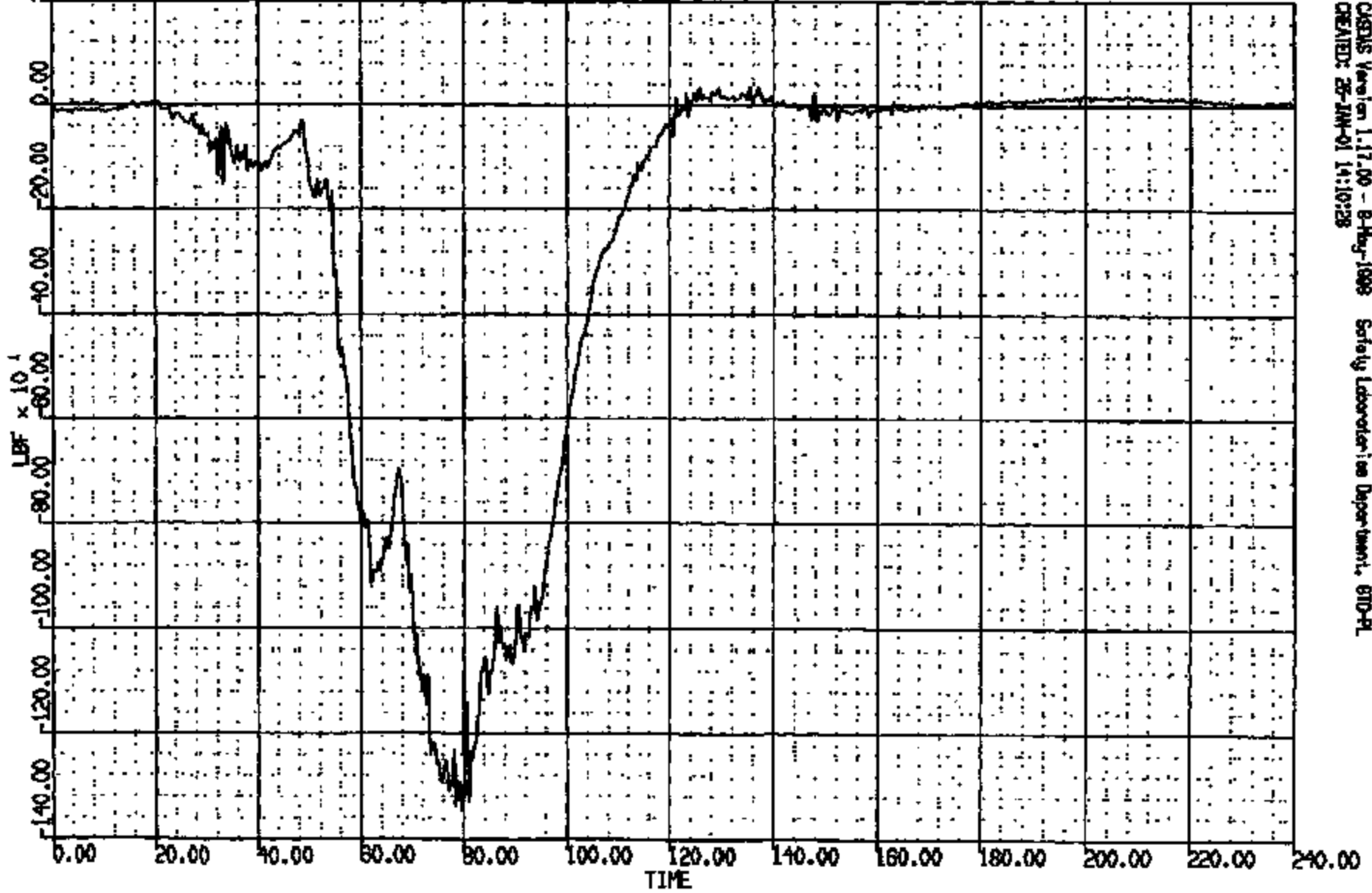


CADDS Version 1.1B.01 - 29-May-2001 Safety Laboratories Department, PNV  
CREATED: 01-MAY-01 16:54:50

CRTS 0012050

C. R: 12050 TO: TC1775 DATE: 001021 13:59:16  
2000 D-188

(38) CR12050T R/F DUMMY R/FEMUR LOAD FZ (50N)  
MAX = 35.85 at 135.4 MS MIN = -134.6 at 79.76 MS **AXIS 1**

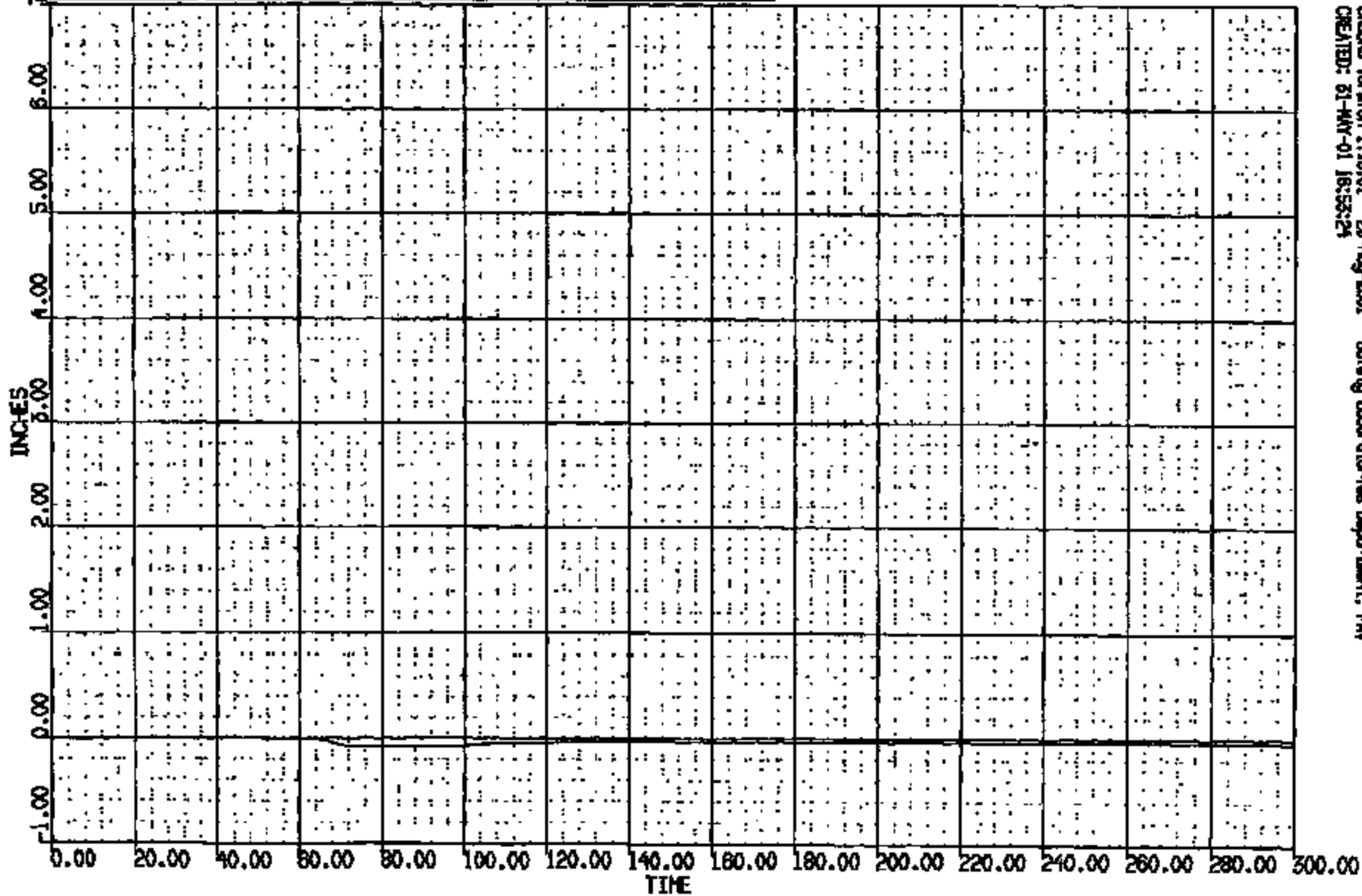


CRSIS Version 1.17.00 - 8-May-1998 Safety Laboratories Department, 610-PL  
CREATED: 25-JAN-01 14:10:28

CRIS 0012050

C: 12050 TO: TC1775 DATE: 001021 3:59:18  
2000 D188

(40) CR120501 R/F DUMMY RANGE SLIDER (STD) 180N  
MAX = -.1330E-03 at 0.000E+00 MS MIN = -.7308E-01 at 84.80 MS **AXIS 1**

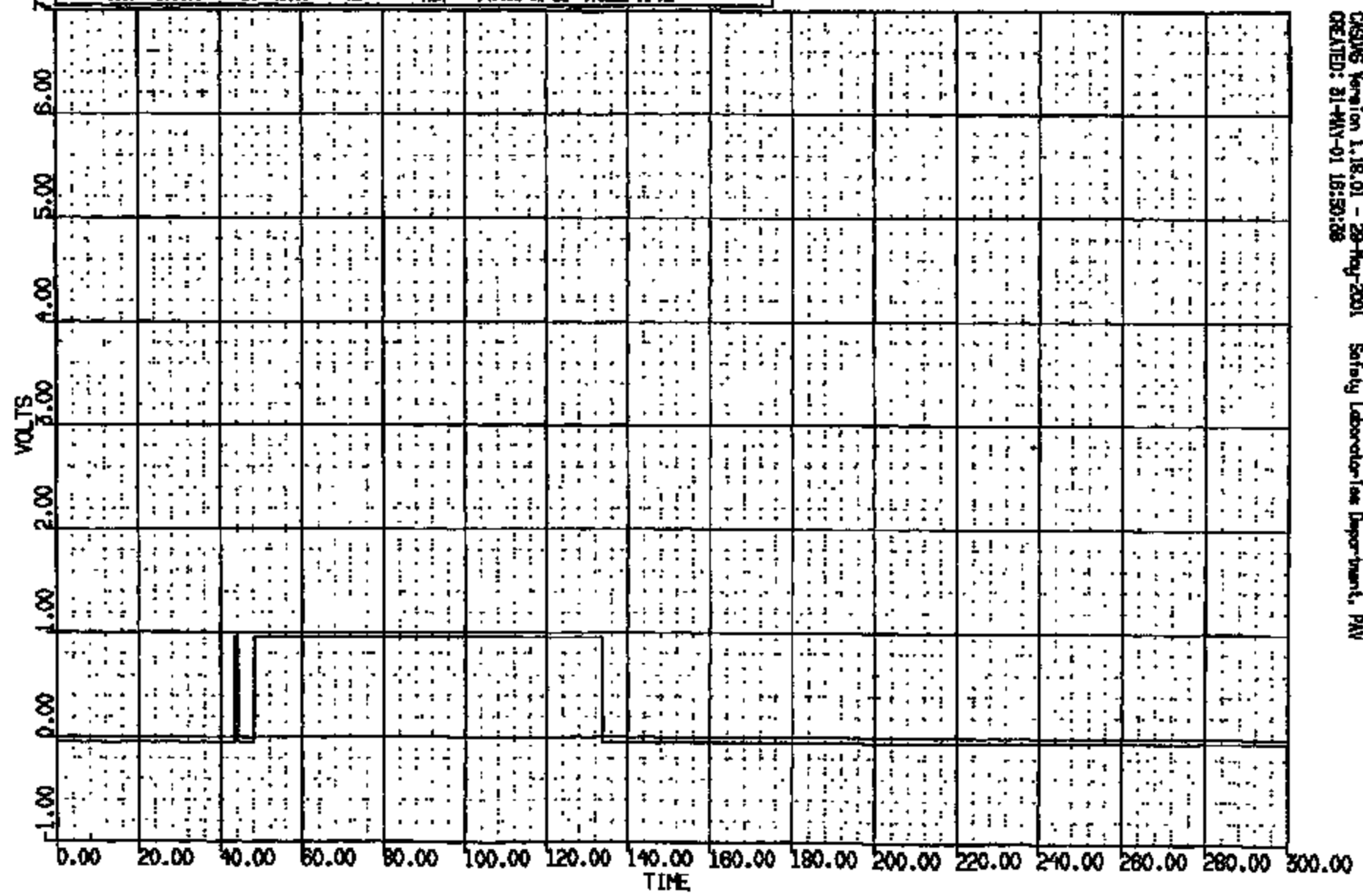


CRS005 Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNV  
CREATED: 01-MAY-01 18:55:24

C. R# 12050 YD: TC1775 DATE: 00102 15:59:16  
2000 D189

(44) CR12050T R/F DUMMY R/NEE SW 4000C  
MAX = 0.9570 at 43.50 MS MIN = -.4935E-01 at -.7629E-05 MS

AXIS 1

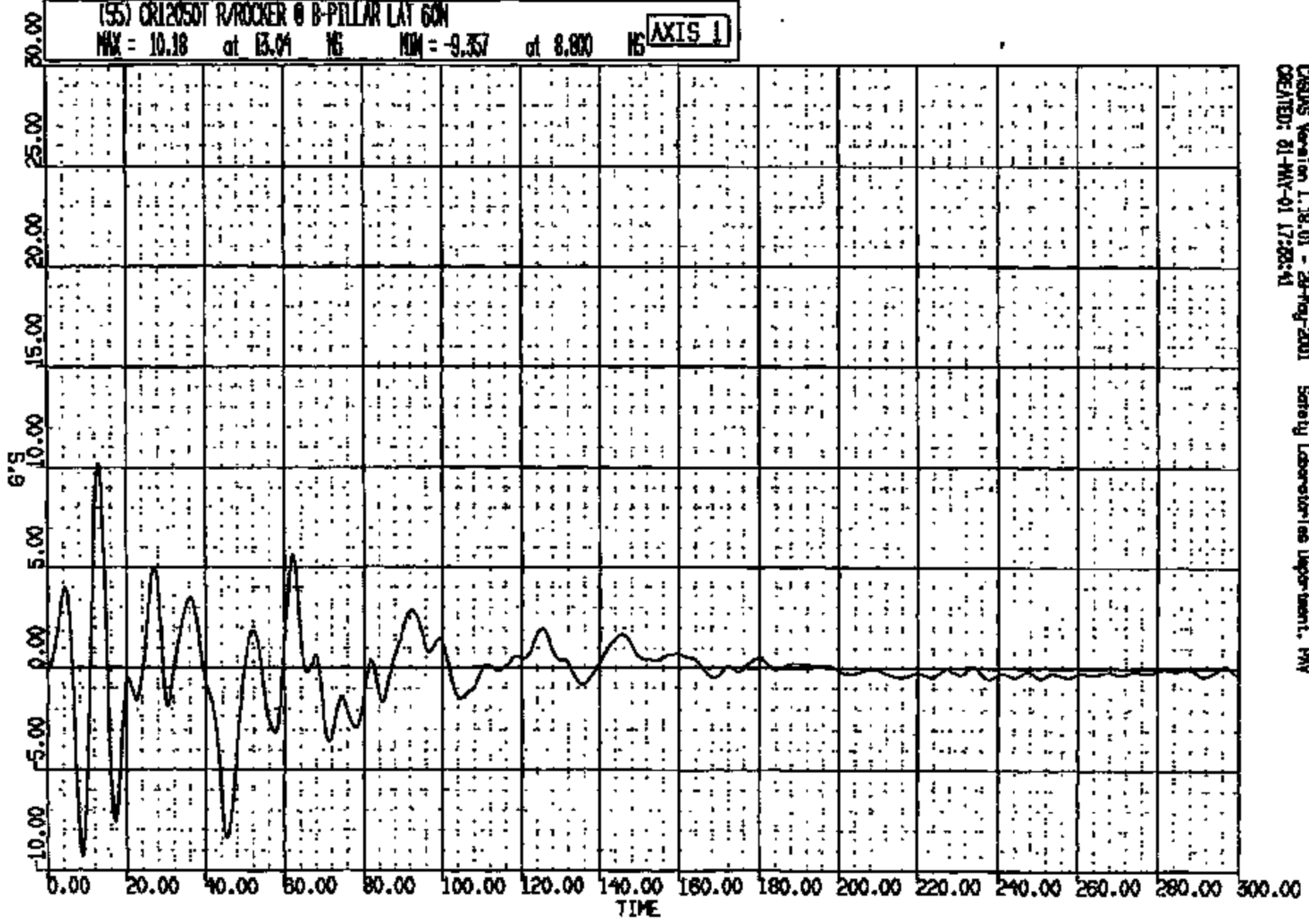


CRS/DG Version 1.18.01 - 29-Aug-2001 Safety Laboratory/see Department, PAN  
CREATED: 31-MAY-01 15:50:28

CRTS 0012050

C. R: 12050 TO: TC1776 DATE: 001020 13:59:18  
2000 D188

(55) CR12050T R/ROCKER @ B-PILLAR LAT 60N  
MAX = 10.18 at 13.04 MS MIN = -9.357 at 8.800 MS **AXIS 1**

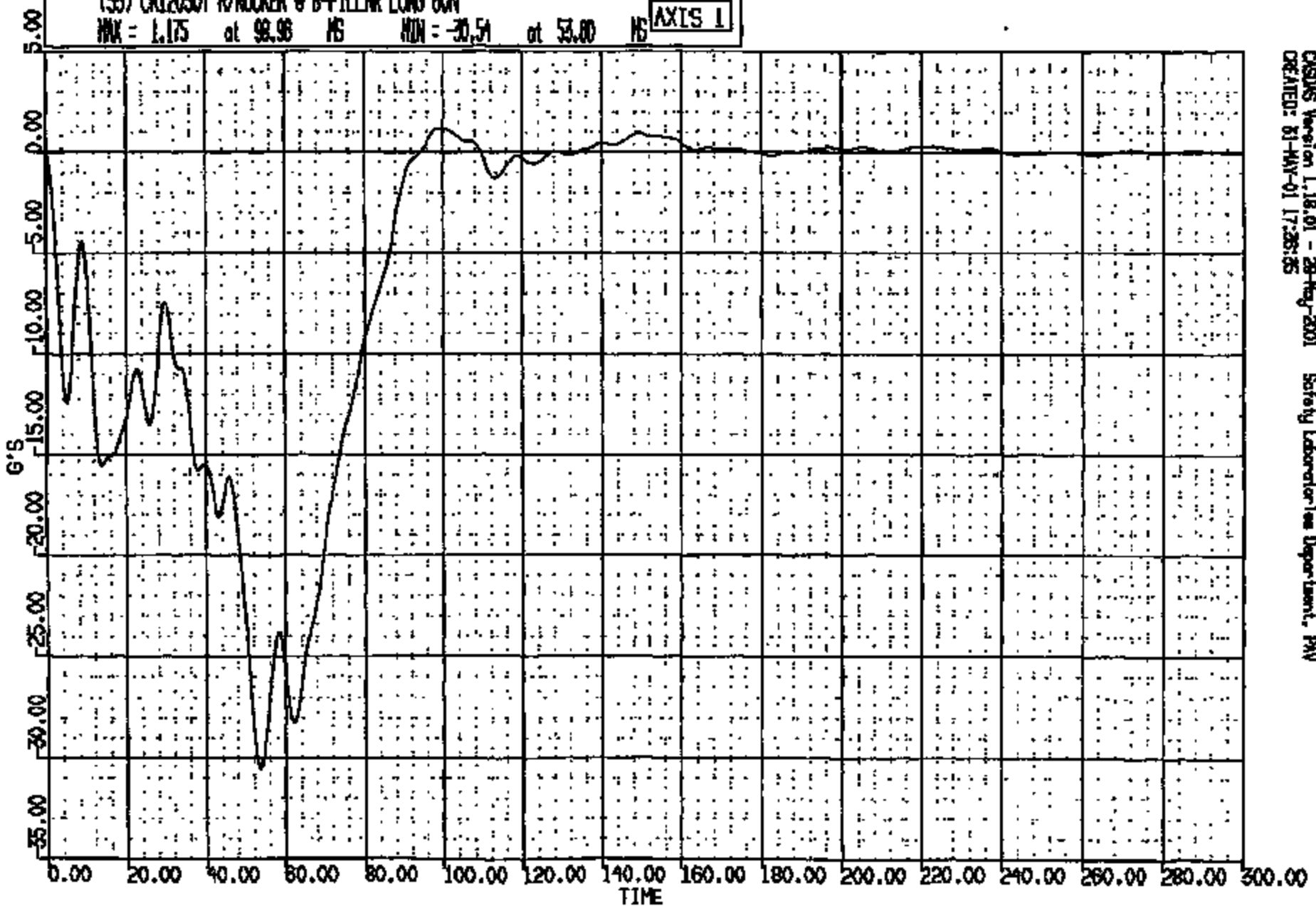


CRSUS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNV  
CREATED: 01-MAY-01 17:28:41

CRIS 0012050

C: A: 12050 TO: TC1775 DATE: 00102K 15:58:18  
2000 D188

(55) CRTS012050T R/ROCKER @ B-PILLAR LONG 60N  
MAX = 1.175 at 98.98 MS MIN = -30.51 at 53.00 MS **AXIS 1**



CRSUS Version 1.18.01 - 28-May-2001 Safety Laboratory/see Department, PHV  
CREATED: 01-MAY-01 17:28:35

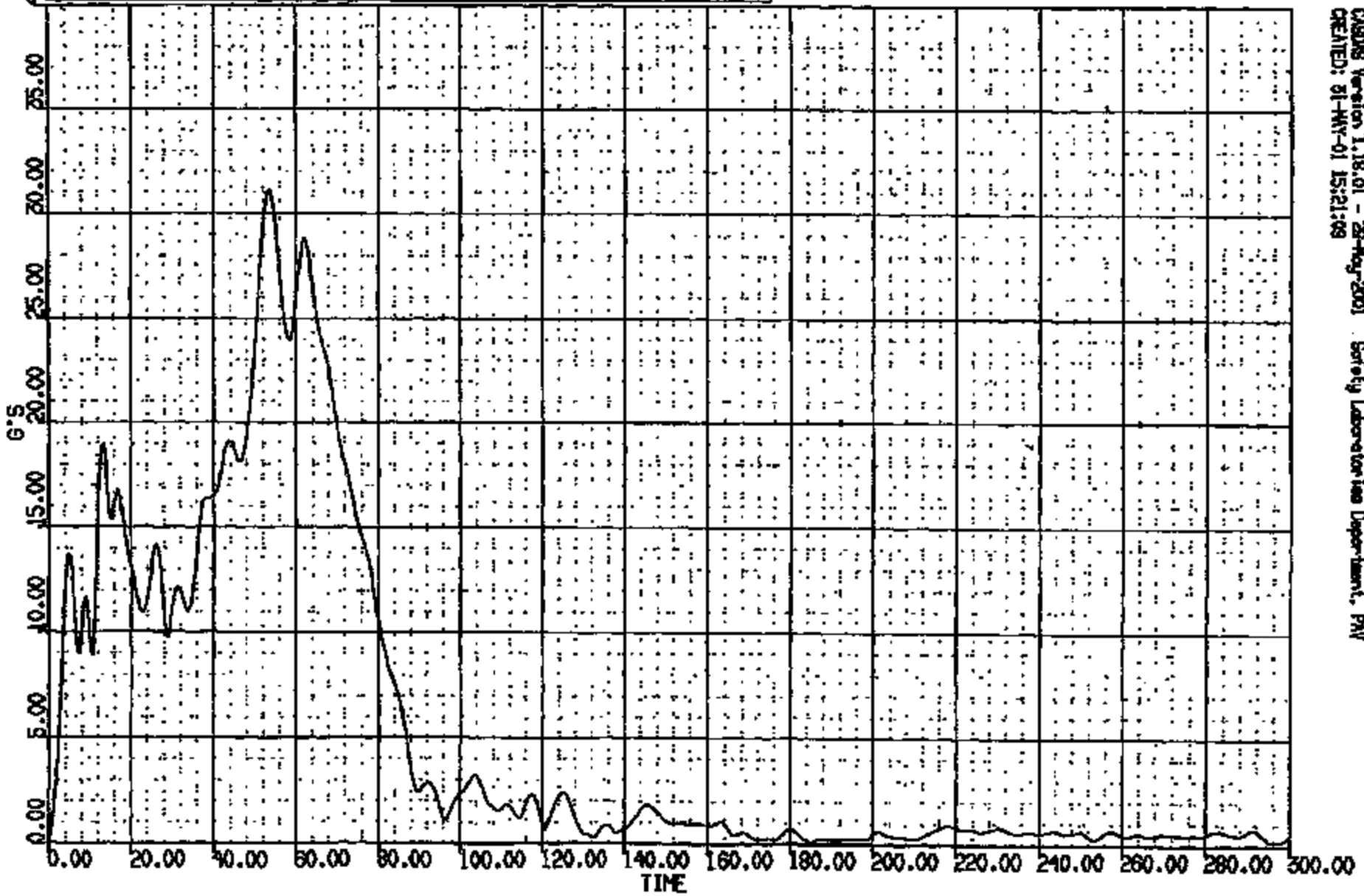
CRTS 0012050



C: 12050 TO: TC1775 DATE: 001021 15:58:15  
2000 D198

(10015) CR12050T R/WICKER @ B-PILLAR RES GM  
MAX = 31.13 at 53.52 MS MIN = 0.6328E-01 at 185.2 MS

AXIS 1

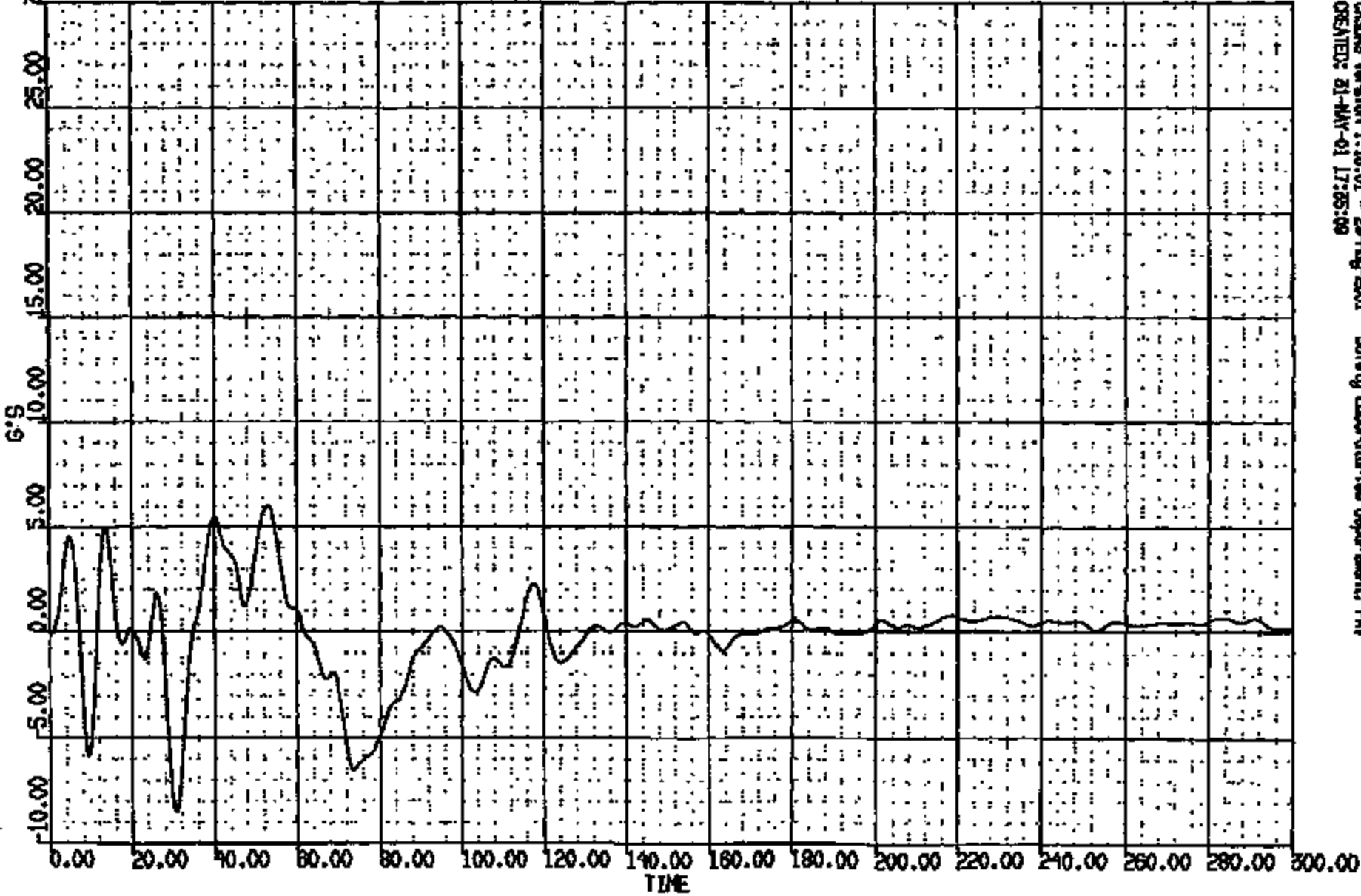


CA908 Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PAI  
CREATED: 01-MAY-01 15:21:09

CRTS 0012050

01 12:12050 TO: TC1775 DATE: 001021 3:59:16  
2000 D188

(54) CR12050T R/ROCKER @ B-PILLAR VERT GCM  
MAX = 6.091 at 53.20 MS MIN = -8.553 at 30.64 MS **AXIS 1**

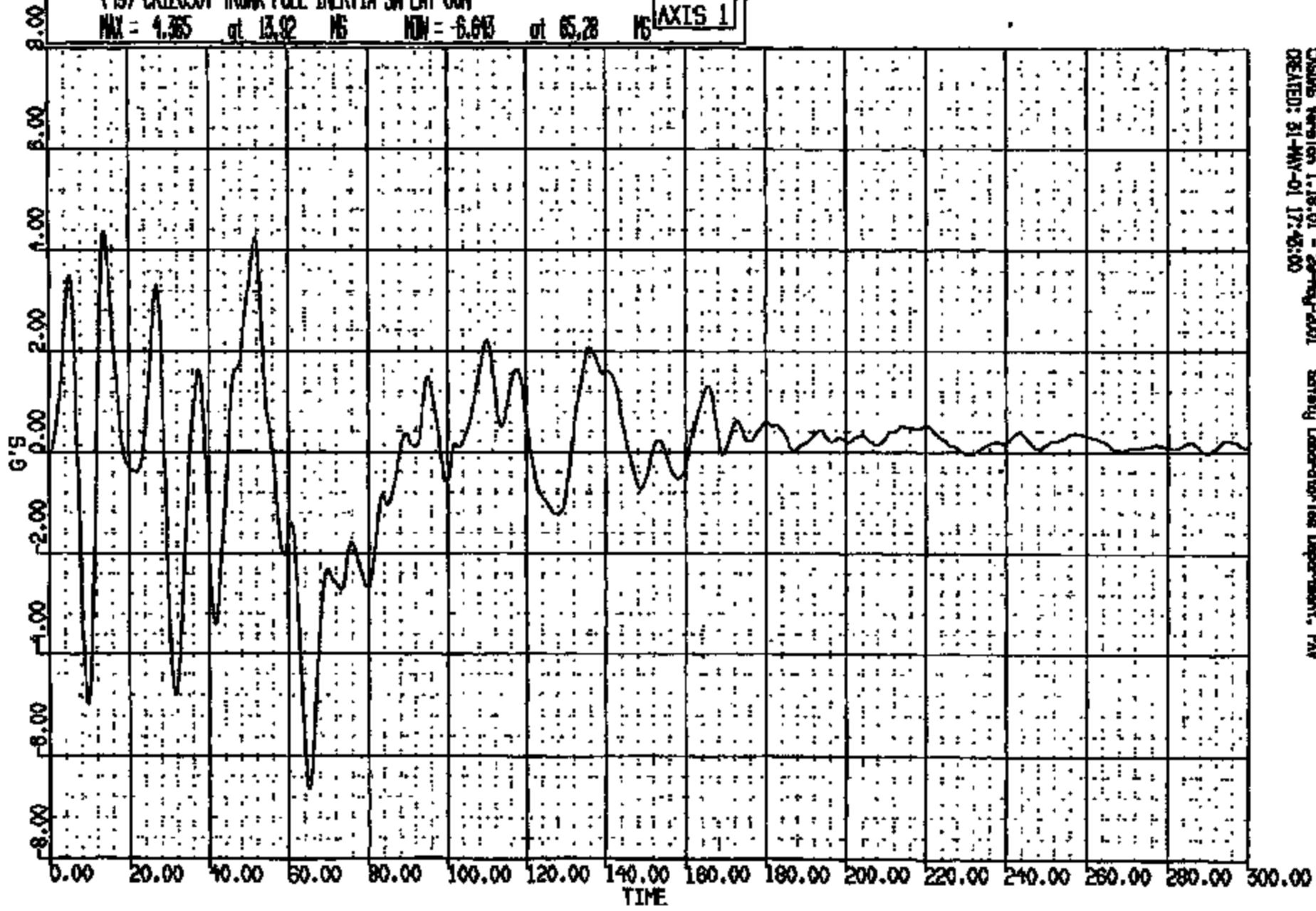


CRSINS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 31-MAY-01 17:05:09

CRTS 0012050

C. R: 12050 TO: TC1775 DATE: 001021 15:59:16  
2000 D186

(49) CR120501 TRUNK FUEL INERTIA SM LAT 60N  
MAX = 4.365 at 13.92 MS MIN = -6.643 at 65.28 MS **AXIS 1**

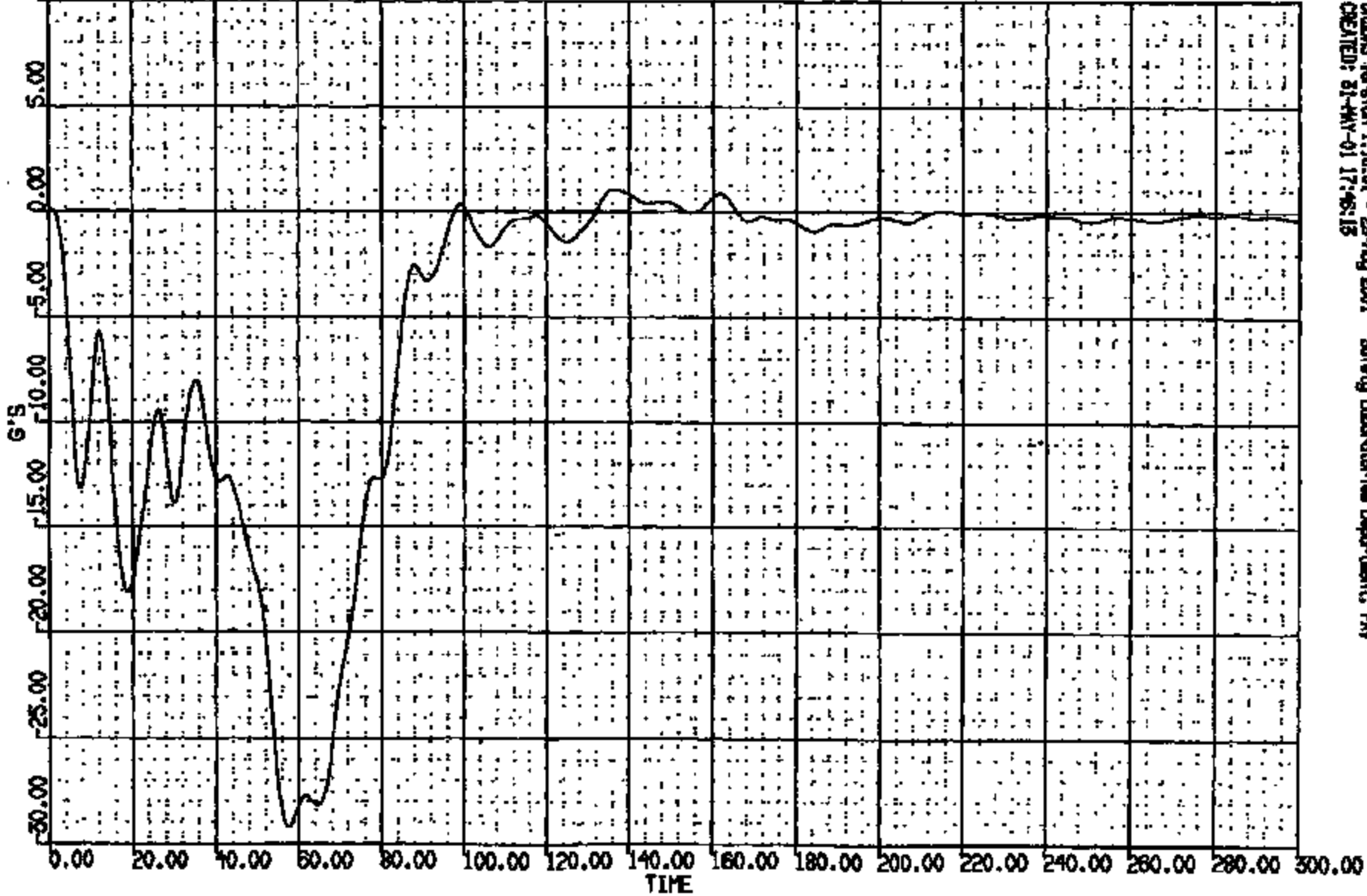


CASIMS Version 1.18-01 - 29-Aug-2001 Safety Laboratories Department, PAN  
CREATED: 31-MAY-01 17:43:00

CRTS 0012050

R: 12050 TO: TC1775 DATE: 00102 13:59:18  
2000 0186

(47) CR120501 TRUNK FUEL INERTIA SW LONG 60V  
MAX = 1.977 at 136.2 MS MIN = -29.23 at 57.00 MS **AXIS 1**

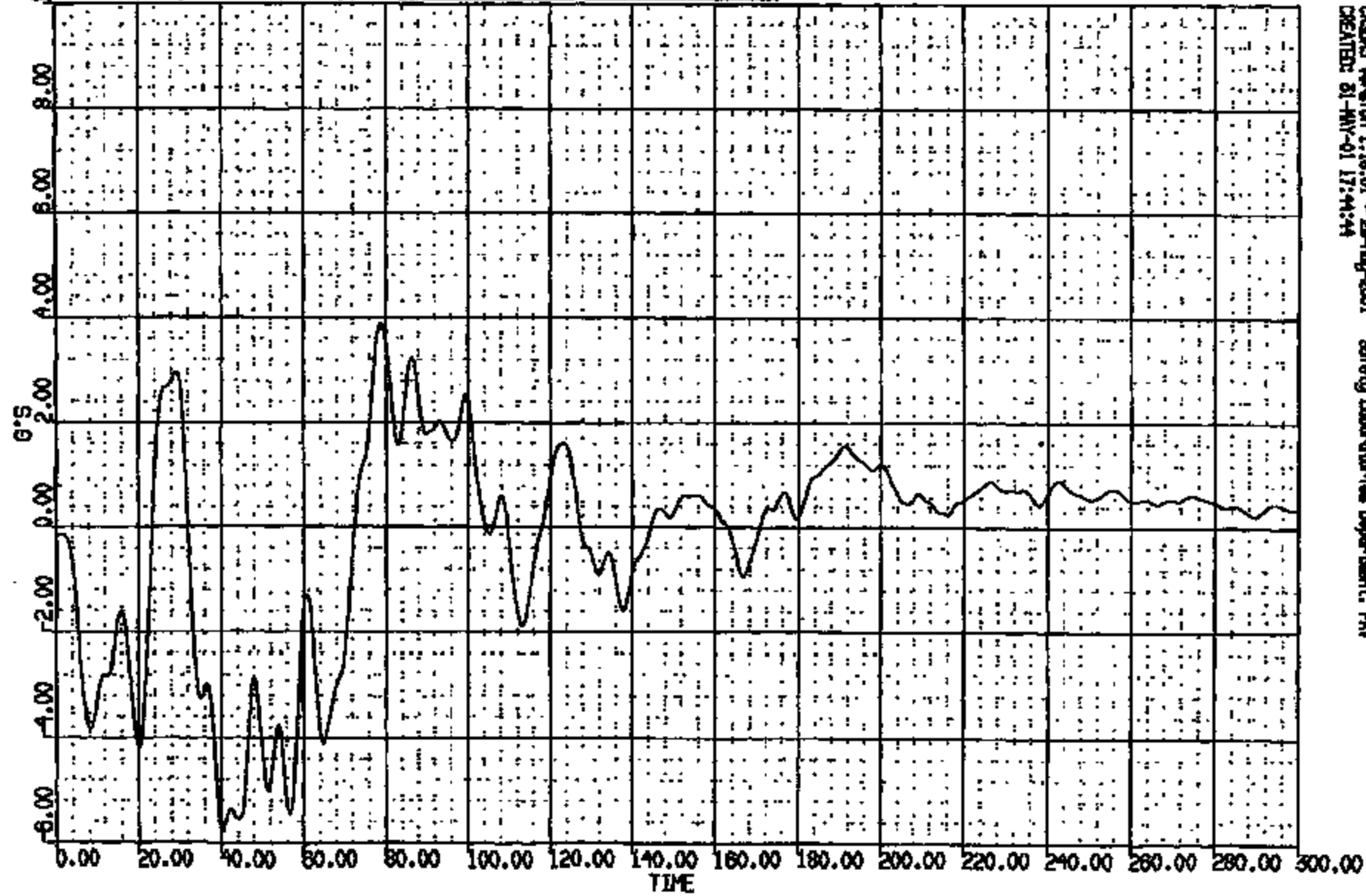


CRDS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 01-MAY-01 17:46:15

CRIS 0012050

C. R: 12050 TO: TC1775 DATE: 001021 13:59:16  
#000 0188

(48) CR120501 TRUNK FUEL INERTIA SH VERT GDN  
MAX = 3.885 at 78.88 MS MIN = -5.792 at 40.24 MS **AXIS 1**

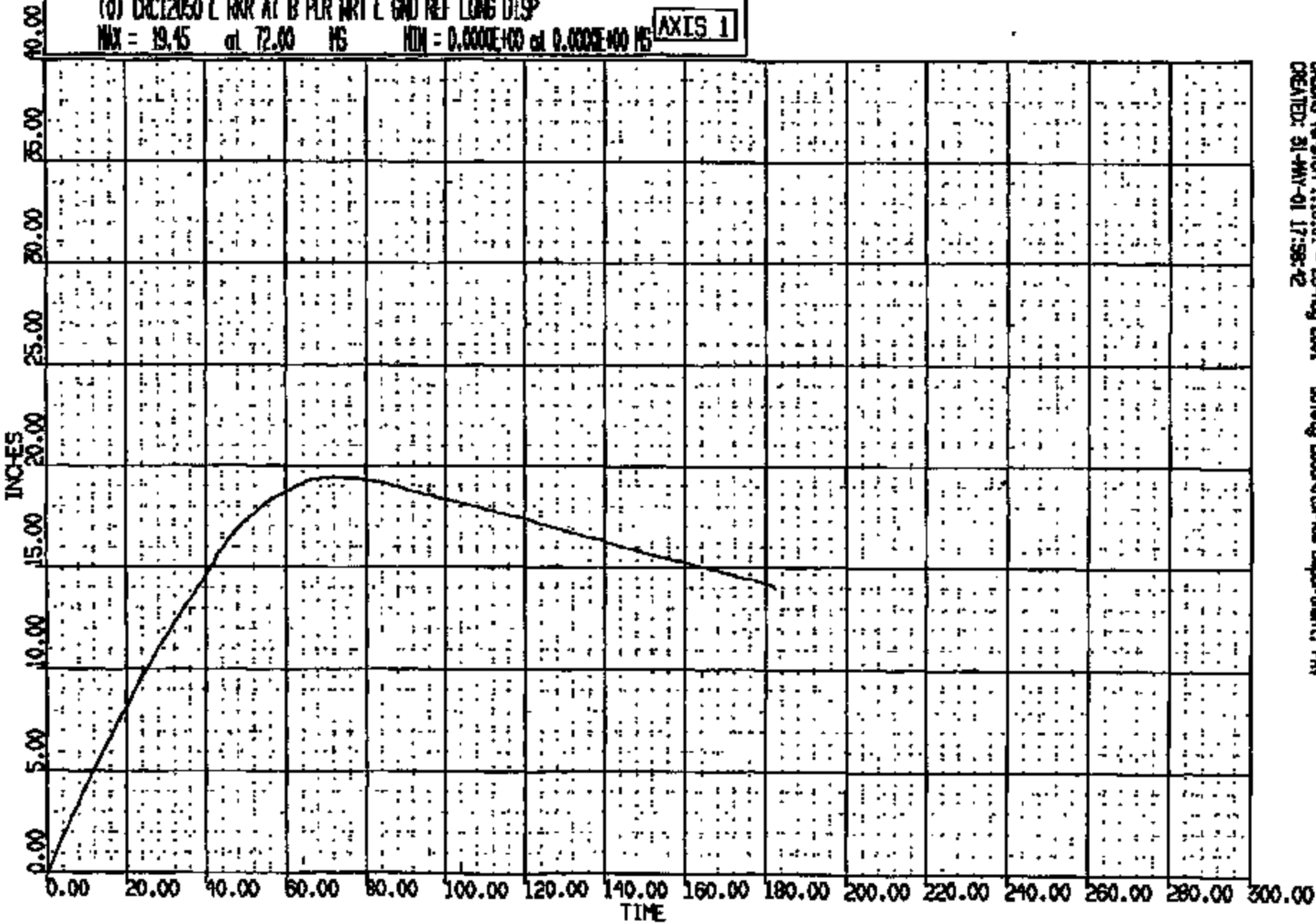


CRSINS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNV  
CREATED: 01-APR-01 17:44:44

CRIS 0012050

01 12050 TO: TC1775 DATE: 001021 15:59:18  
2000 D169

(0) CRC12050 L RKR AT B PLR ART L GND REF LONG DISP  
MAX = 19.45 at 72.00 MS MIN = 0.000E+00 at 0.000E+00 MS **AXIS 1**

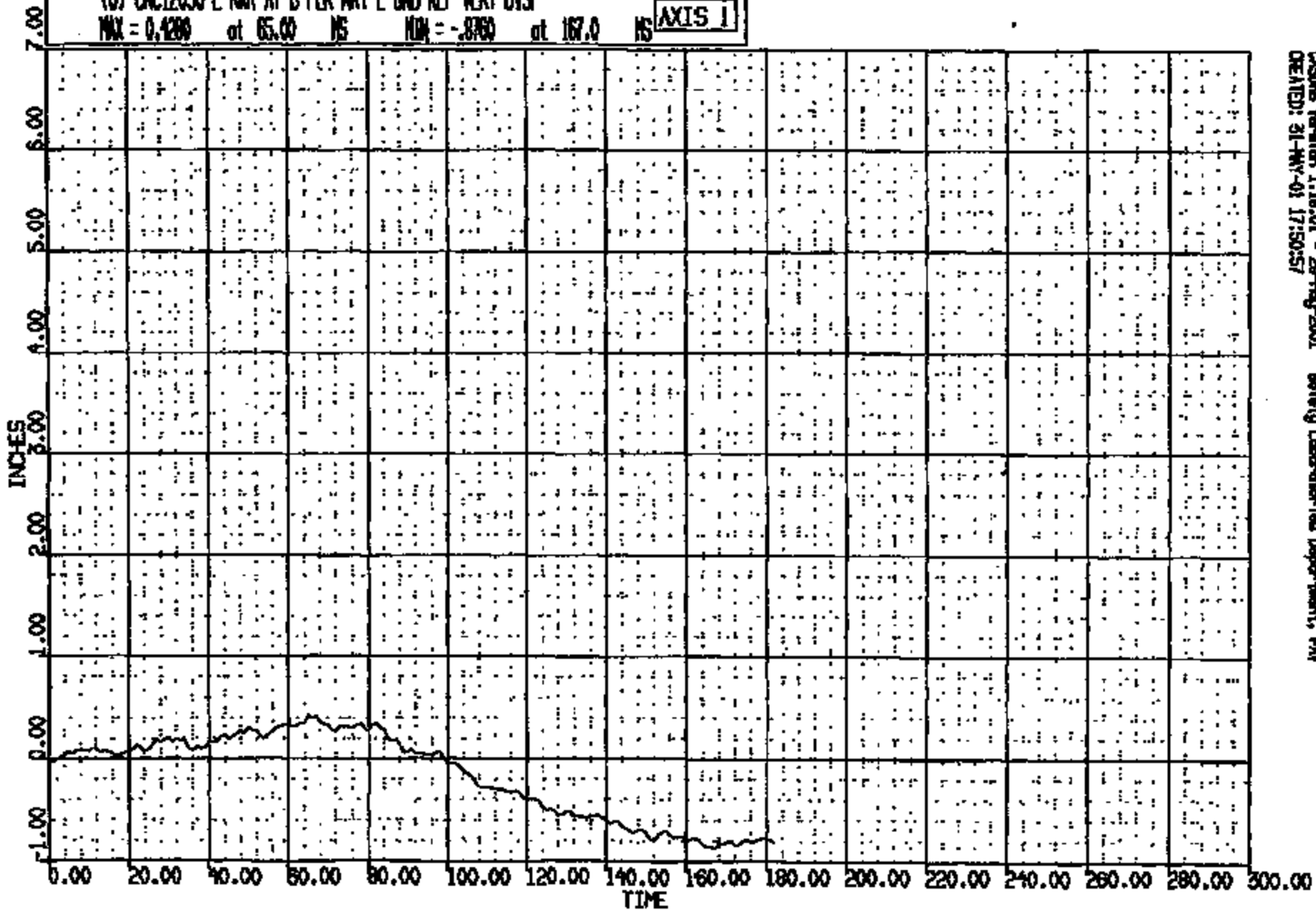


CADDS Version 1.19.01 - 29-Aug-2001 Safety Laboratories Department, PAN  
CREATED: 31-MAY-01 17:58:42

CRTS 0012050

CASE: 12050 TO: TC1775 DATE: 001026 15:59:18  
2000 D188

(0) CNC12050 L RWR AT B FLR WRT L END REF VERT DISP  
MAX = 0.4280 at 65.00 MS MIN = -0.8760 at 167.0 MS **AXIS 1**

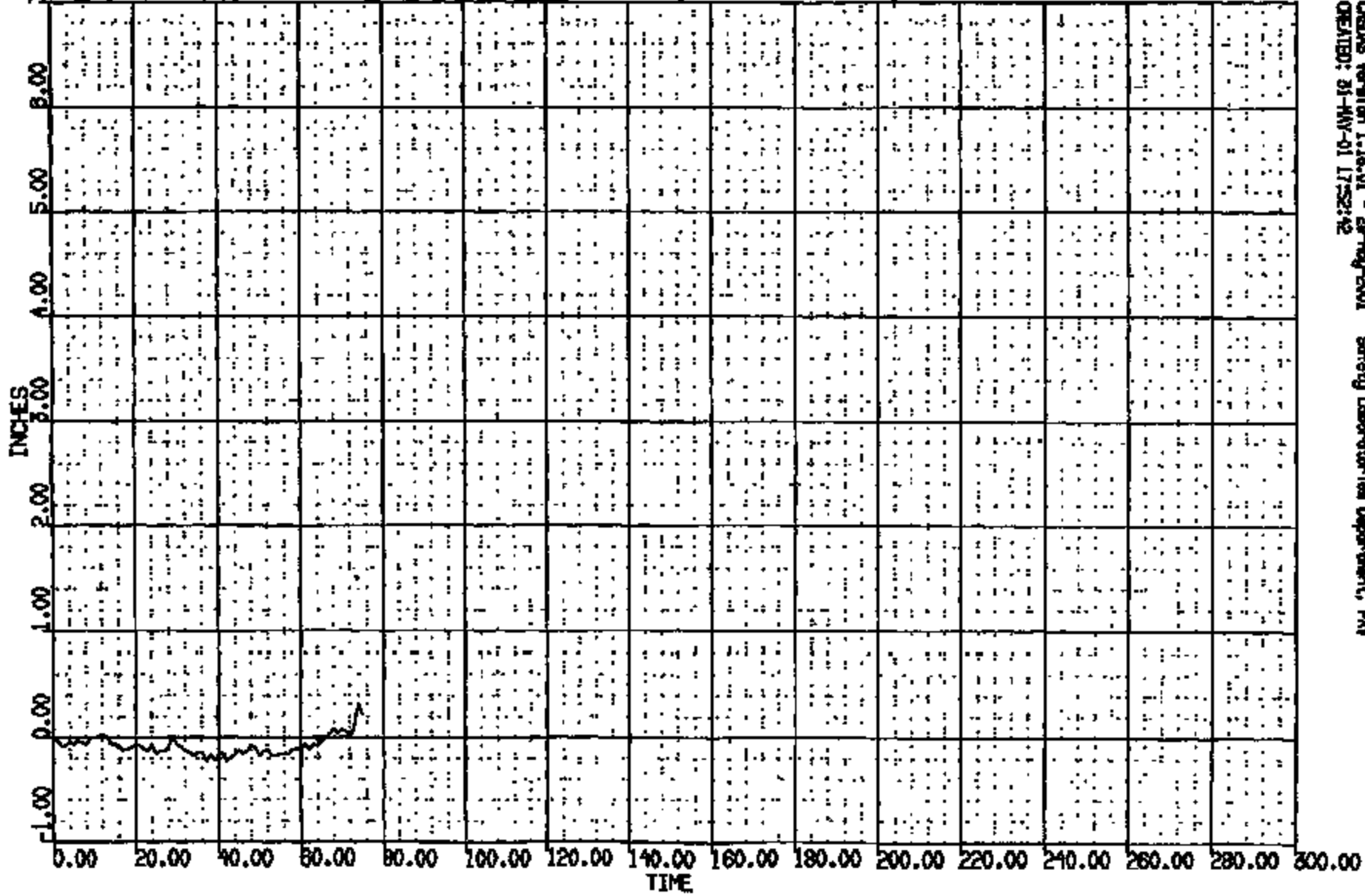


CASINS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNY  
CREATED: 31-MAY-01 17:50:57

CRTS 0012050

CIR: 12050 TO: TC1775 DATE: 001021 15:59:18  
2000 D188

(0) CR12050 L S HEAD DROR ART L ROR AT B PL VERT DISP  
MAX = 0.3110 at 74.00 MS MIN = -.2300 at 42.00 MS **AXIS 1**



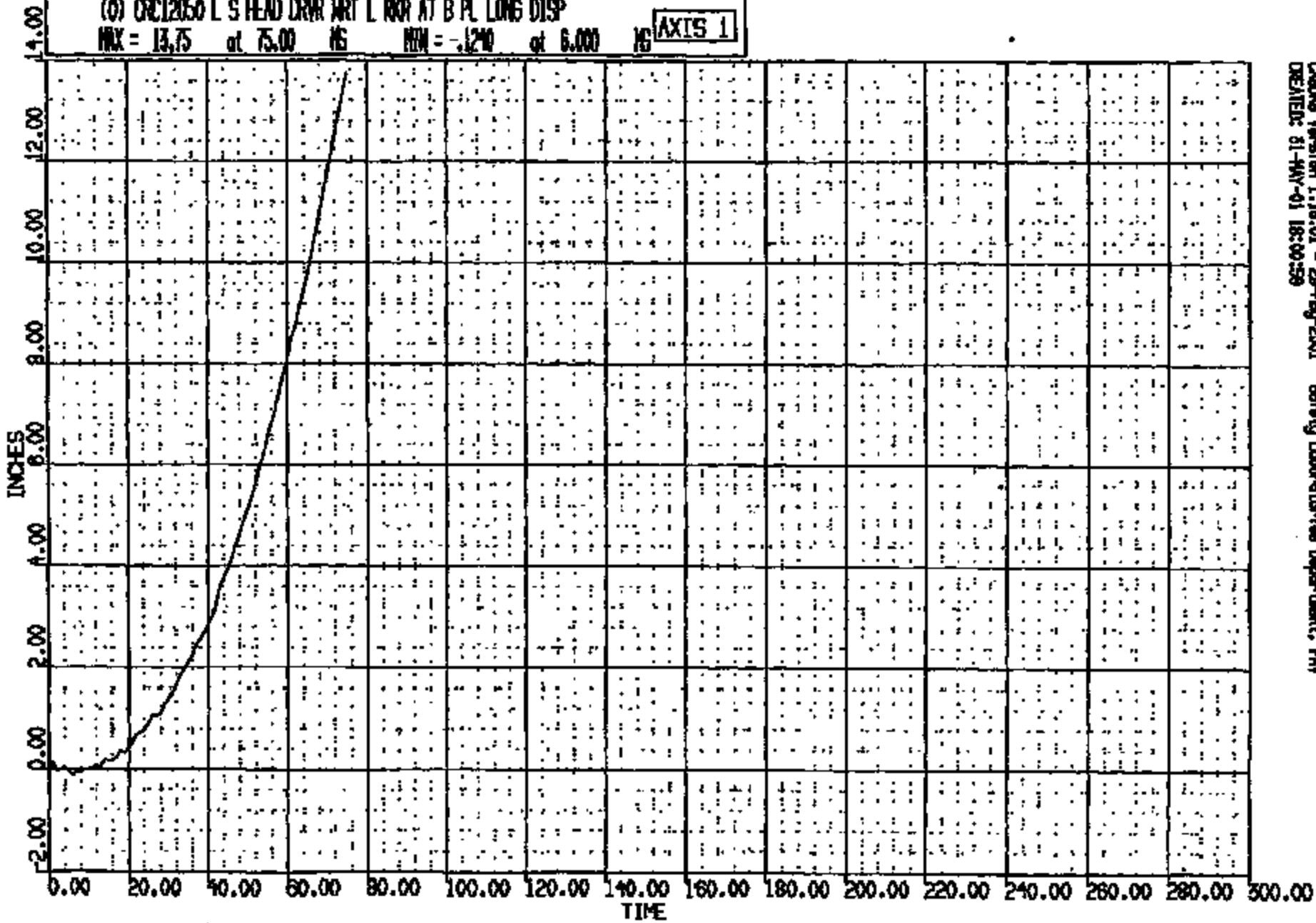
CRSAS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 21-MAY-01 17:52:42

CR12050



Q: R: 12050 TO: TC1775 DATE: 001021 13:59:16  
2000 D188

(0) CR12050 L S HEAD DRVR WRT L ROR AT B PL LONG DISP  
MAX = 13.75 at 75.00 IN MIN = -1.210 at 6.000 IN **AXIS 1**

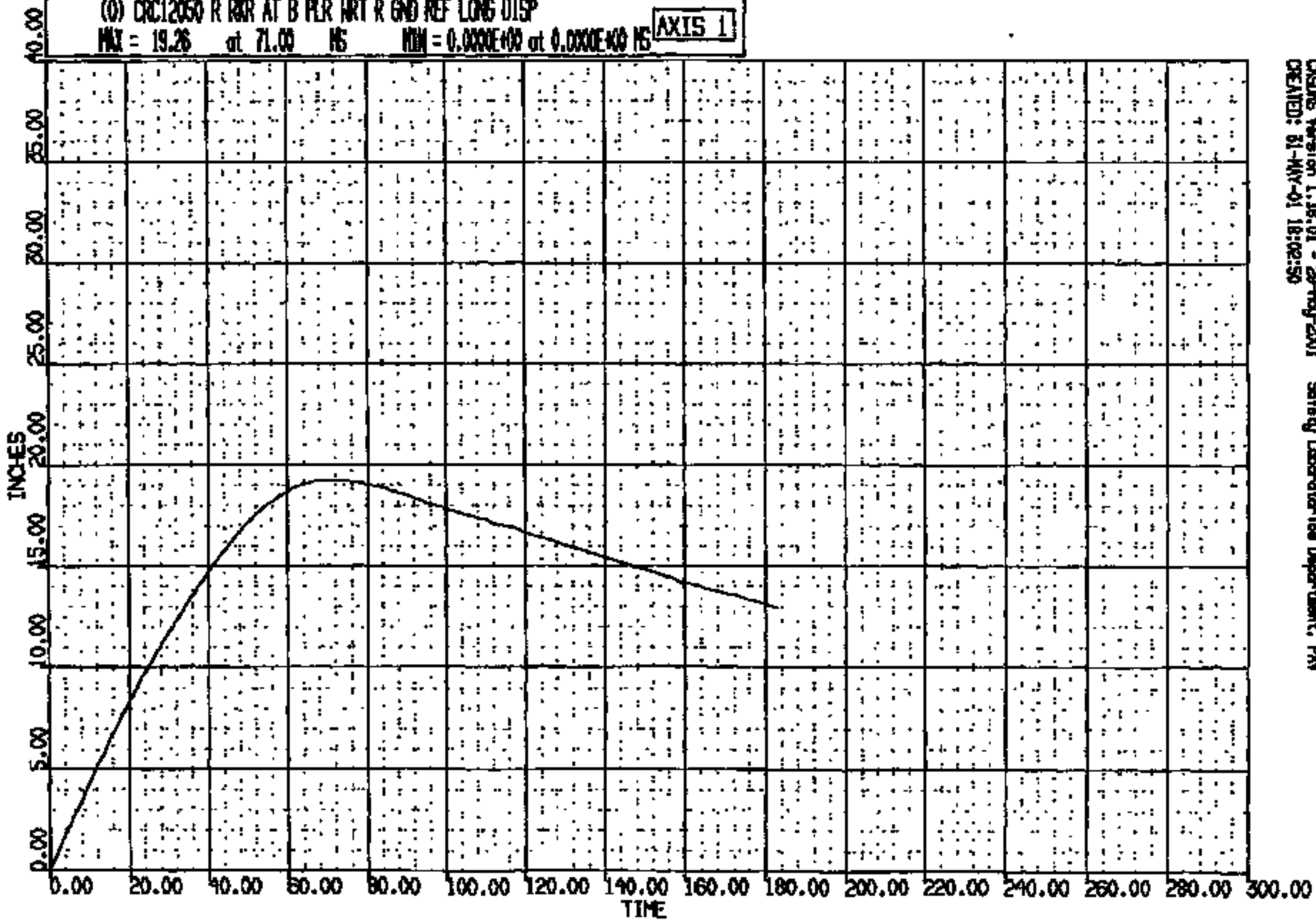


CASINS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PIW  
DELETED: 01-MAY-01 18:00:59

CRIS 0012050

R: 12050 TO: TC1775 DATE: 001021 18:58:18  
2000 Disc

(0) CRC12050 R ROR AT B PLR WRT R GND REF LONG DISP  
MAX = 19.26 at 71.00 NS MIN = 0.000E+00 at 0.000E+00 NS **AXIS 1**

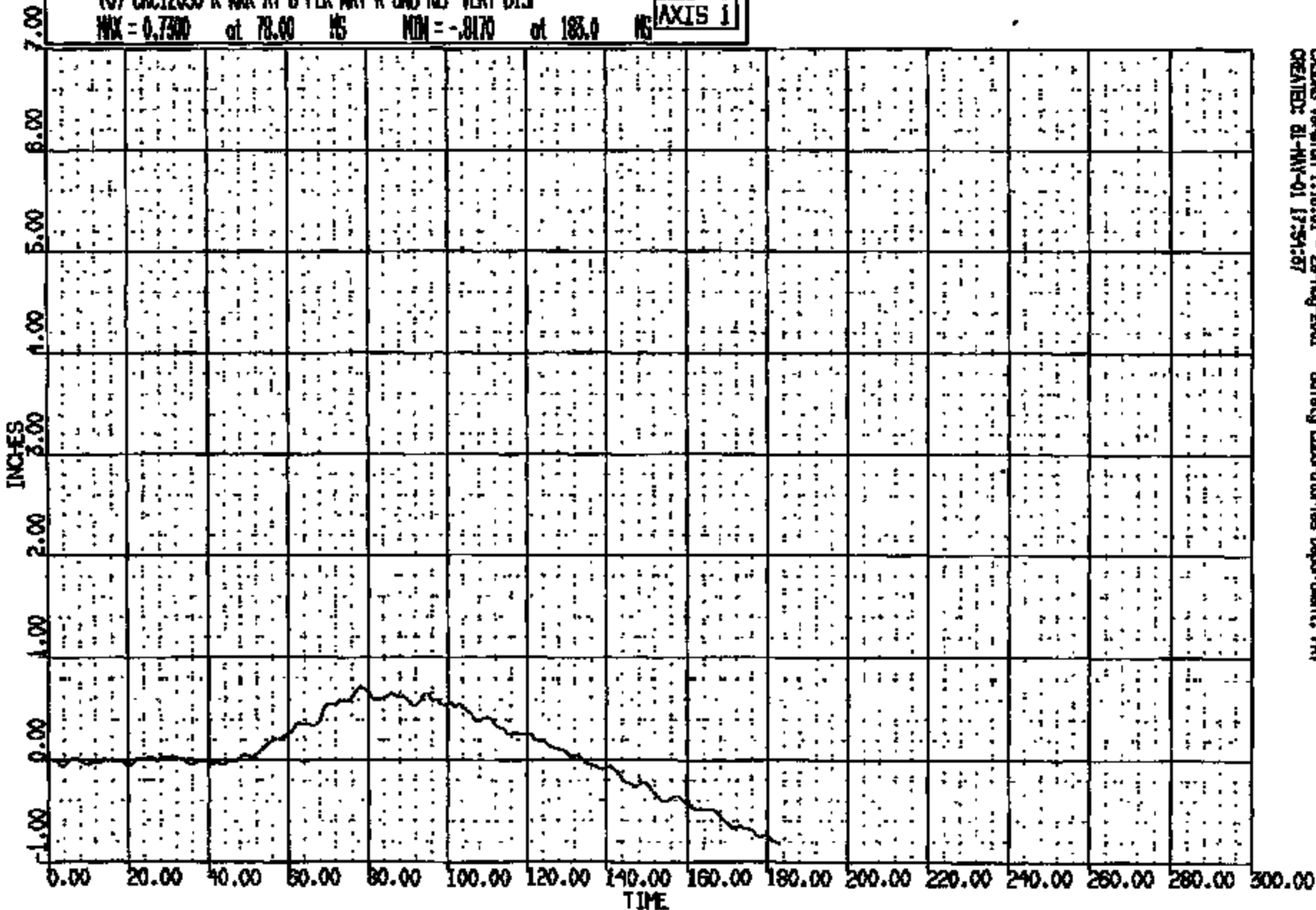


CASINS Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PNW  
CREATED: 61-MAY-01 18:02:50

CRTS 0012050

CA #: 12050 TO: TC1775 DATE: 001025 13:59:18  
2000 D188

(0) CRC12050 R WGR AT B PLR WRT R END REF VERT DISP  
MAX = 0.7300 at 78.00 MS MIN = -0.8170 at 183.0 MS **AXIS 1**

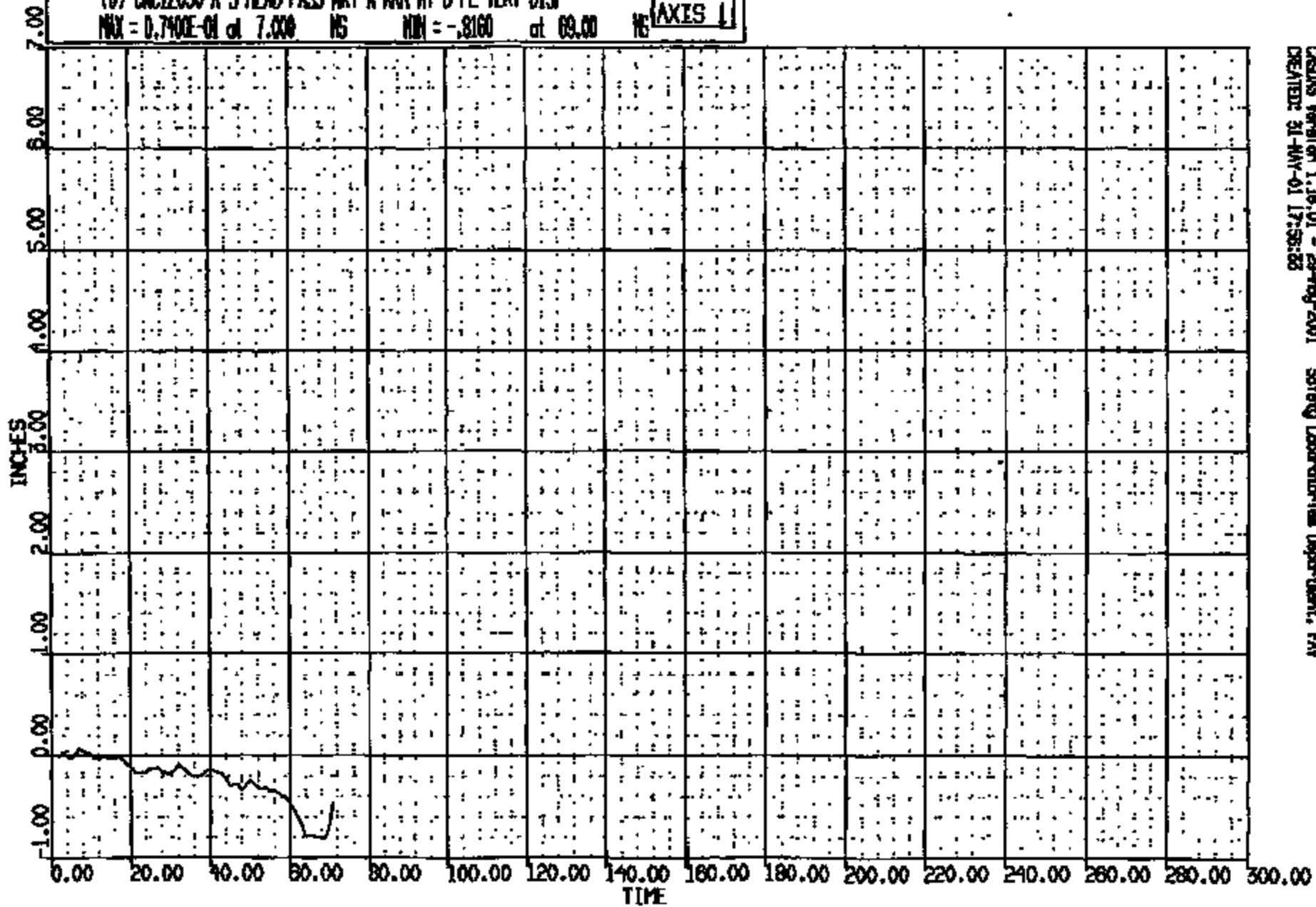


CASDS Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PAW  
CREATED: 21-MAY-01 17:54:57

CRTS 0012050

CR R: 12050 TO: TC1775 DATE: 001026 13:59:18  
2000 DISK

(D) CR012050 R 5 HEAD PASS WRT R RWR AT B PL VERT DISP  
MAX = 0.740E-01 at 7.00 NS MIN = -.8160 at 69.00 NS **AXIS 11**



CRS012050 Version 1.16.01 - 29-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 31-MAY-01 17:58:23

CRS012050



ASC TO #: T- TC1775

TARGET DIMENSIONAL ANALYSIS REPORT

CRASH #: 12050

VEHICLE INFORMATION

TEST DESCRIPTION: 90 DEG. FRONT FIXED BARRIER  
VEHICLE PROGRAM YEAR: 2000  
VEHICLE MODEL NAME: D-186  
VEHICLE PROGRAM NAME: D-186  
VEHICLE ID NUMBER: 3118953  
CERTIFICATION VEHICLE CODE: DV  
REQUESTOR NAME: W. HARRMAN  
TEST ENGINEER NAME:

TIME AND DATE OF REPORT: 23-JAN-01 12:47:20

CRIS 0012050

## \*\* POINT COORDINATES \*\*

UFT NO	SIDE	PWT NO	DESCRIPTION		INCHES			INCHES CHANGED					
					LONG X	LAT Y	VERT Z	X	Y	Z	D		
070			SEE COMMENT SHEET										
		10	LEFT HYBRID III "H" FT REL. TO FPC/BILL/TARGET	BEF AFT	8.60	0.00	12.60						
		20	RIGHT HYBRID III "H" FT REL. TO FPC/BILL/TARGET	BEF AFT	8.60	0.00	12.70						
124			TOP (BODY) NOW SIDED										
		08	CONTROL POINT LEFT REAR BILL	BEF AFT	156.15	-26.25	13.81						
					156.15	-26.25	13.81	0.00	0.00	0.00	0.00		
		12	BUMPER @ LEFT MOUNTING FRONT	BEF AFT	31.75	-21.39	26.73						
					44.50	-21.84	28.67	12.75	-0.45	1.94	12.90		
		13	BUMPER @ CENTERLINE FRONT	BEF AFT	30.04	-0.18	26.49						
					15.02	-0.22	28.59	14.98	-0.04	2.10	16.13		
		14	BUMPER @ RIGHT MOUNTING FRONT	BEF AFT	31.37	20.85	26.63						
					43.14	19.38	29.31	11.77	-1.47	2.68	12.16		
		17	ENGINE POINT (RELATIVE)	BEF AFT	57.37	0.13	37.56						
					62.40	-0.20	38.36	5.03	-0.41	0.80	5.11		
		18	COIL POINT (RELATIVE)	BEF AFT	74.81	2.69	35.20						
		21	ROOF @ C/L OF VEHICLE (N/S)	BEF AFT	107.43	-1.28	58.14						
					107.40	-1.58	58.94	-0.03	-0.30	0.20	0.36		
		41	STEERING COLUMN MOUNT INBOARD UPPER	BEF AFT	92.47	-10.07	24.12						
					91.77	-10.46	24.67	-0.70	-0.39	0.55	0.97		
		42	STEERING COLUMN MOUNT OUTBOARD UPPER	BEF AFT	92.27	-17.37	24.06						
					91.79	-17.51	24.47	-0.46	-0.14	0.41	0.65		
		43	STEERING COLUMN MOUNT INBOARD LOWER	BEF AFT	84.96	-3.91	31.94						
					86.31	-10.33	32.35	-0.65	-0.42	0.41	0.88		

\* VALUE WAS TRANSLATED

TIME AND DATE OF REPORT: 23-JUN-01 12:47:21

PAGE 1

## \*\* POINT COORDINATES \*\*

UNT NO	SIDE	PWT NO	DESCRIPTION		INCHES			INCHES CHANGED					
					LONG X	LAT Y	VERT Z	X	Y	Z	D		
44			STEERING COLUMN MOUNT OUTBOARD LOWER	REF	86.73	-17.19	31.89						
				AFT	86.24	-17.61	32.21	-0.49	-0.42	0.32	0.72		
51	TOP/1		STEERING WHEEL PERIPHERY	REF	103.39	-14.77	46.92						
				AFT	100.87	-14.34	47.67	-1.46	0.43	0.75	1.70		
52	RIGHT/2		STEERING WHEEL PERIPHERY	REF	105.96	-7.70	39.89						
				AFT	104.30	-7.18	40.62	-1.06	0.52	0.73	1.39		
53	BOTTOM/3		STEERING WHEEL PERIPHERY	REF	107.46	-14.98	34.01						
				AFT	104.87	-14.61	34.62	-2.59	0.37	0.41	2.65		
54	LEFT/4		STEERING WHEEL PERIPHERY	REF	104.74	-21.43	40.44						
				AFT	103.41	-21.23	41.42	-1.33	0.20	0.98	1.66		
55			STEERING WHEEL HUB NUT @ C/L	REF	101.62	-14.48	39.81						
				AFT	100.70	-14.88	39.73	-0.92	0.32	0.72	1.21		
80			INSTRUMENT PANEL (REL)	REF	99.00	-26.53	39.56						
				AFT	99.22	-26.54	39.87	0.22	-0.01	0.31	0.38		
96			CONTROL POINT RIGHT REAR SILL	REF	155.77	26.46	14.01						
				AFT	155.62	26.31	14.01	-0.15	-0.15	0.00	0.21		
125			TOP (BODY) SIDED										
L	09		END OF FRONT SPINDLE @ CENTERLINE (WHEELBASE)	REF	66.31	-33.87	16.62						
				AFT	67.21	-34.11	15.82	0.90	-0.44	-0.80	1.28		
R	09		END OF FRONT SPINDLE @ CENTERLINE (WHEELBASE)	REF	66.27	33.61	16.57						
				AFT	68.27	32.89	15.94	2.00	-0.72	-0.63	2.22		
L	22		"A" PILLAR @ ROOF	REF	108.95	-24.28	56.70						
				AFT	109.05	-24.57	56.82	0.10	-0.29	0.12	0.33		
R	22		"A" PILLAR @ ROOF	REF	109.42	23.83	56.97						
				AFT	109.34	23.48	57.24	-0.08	-0.35	0.27	0.45		
L	23		"A" PILLAR @ BELT	REF	88.19	-30.73	39.72						
				AFT	88.36	-31.21	39.88	0.17	-0.48	0.16	0.53		

\* VALUE WAS TRANSLATED

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## \*\* POINT COORDINATES \*\*

INST NO	SIDE	PWT NO	DESCRIPTION		INCHES			INCHES CHANGED			
					LONG X	LAT Y	VERT Z	X	Y	Z	D
R	23		"A" FILLAR & BELT	REF	88.17	30.57	39.70	0.04	-0.33	0.00	0.34
				AFT	88.21	30.24	39.78				
L	24		FRONT ROCKER SILL TST. RELATED TO C/W HOLE	REF	108.26	-32.04	13.78				
				AFT							
R	24		FRONT ROCKER SILL TST. RELATED TO C/W HOLE	REF	108.24	32.02	13.76				
				AFT							
L	27		" B " FILLAR POINT @ BELT	REF	127.15	-31.29	42.48	2.14	-0.19	0.00	2.15
				AFT	128.29	-31.48	42.48				
R	27		" B " FILLAR POINT @ BELT	REF	126.93	31.20	41.90	-0.13	-0.31	0.08	0.34
				AFT	126.80	30.89	41.96				
L	28		" WET " POINT ON ROCKER @ " B " FILLAR	REF	122.70	-31.35	18.07	0.09	-0.27	0.05	0.29
				AFT	122.79	-31.62	18.12				
R	28		" WET " POINT ON ROCKER @ " B " FILLAR	REF	123.57	31.38	18.85	-0.15	-0.16	0.03	0.22
				AFT	123.42	31.22	18.88				
L	31		LATCH/STRIKER BOLT @C/L OR U-BOLTTOP @B FILLAR	REF	125.10	-31.43	30.89	0.13	-0.20	0.03	0.24
				AFT	125.23	-31.63	30.92				
R	31		LATCH/STRIKER BOLT @C/L OR U-BOLTTOP @B FILLAR	REF	125.08	31.37	30.84	-0.14	-0.30	0.04	0.33
				AFT	124.94	31.07	30.88				
L	41		FRONT INBOARD TRACK TO FLOOR	REF	107.77	-6.76	17.14	-0.12	-0.36	-1.44	1.49
				AFT	107.65	-7.12	16.70				
R	41		FRONT INBOARD TRACK TO FLOOR	REF	107.76	6.71	17.25	-0.16	-0.03	-1.49	1.50
				AFT	107.60	6.68	15.76				
L	42		FRONT OUTBOARD TRACK TO FLOOR	REF	107.75	-22.25	16.18	.0.03	-0.42	-0.47	0.63
				AFT	107.78	-22.67	15.71				
R	42		FRONT OUTBOARD TRACK TO FLOOR	REF	107.73	22.05	16.20	-0.21	-0.04	-0.40	0.65
				AFT	107.52	22.01	15.80				
L	43		REAR INBOARD TRACK TO FLOOR	REF	121.90	-5.07	16.10	-0.32	-0.20	-0.71	0.80
				AFT	121.58	-5.27	15.39				

\* VALUE WAS TRANSLATED

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## \*\* POINT COORDINATES \*\*

UNIT NO	SIDE	PNT NO	DESCRIPTION		INCHES			INCHES CHANGED			
					LONG X	LAT Y	VERT Z	X	Y	Z	D
R	43		REAR INBOARD TRACK TO FLOOR	BEF	121.85	5.35	16.40				
				AFT	121.46	5.06	15.38	-0.39	-0.29	-1.02	1.13
L	44		REAR OUTBOARD TRACK TO FLOOR	BEF	121.61	-23.28	16.42				
				AFT	121.65	-23.57	16.39	0.04	-0.29	-0.03	0.29
R	44		REAR OUTBOARD TRACK TO FLOOR	BEF	121.66	23.40	16.55				
				AFT	121.49	23.01	16.49	-0.17	-0.39	-0.06	0.43
L	90		" B " POINT ON REAR QUARTER PANEL	BEF	209.17	-25.33	44.57				
				AFT	209.16	-25.18	44.55	-0.01	0.15	-0.01	0.18
R	90		" B " POINT ON REAR QUARTER PANEL	BEF	209.17	25.21	44.65				
				AFT	209.16	25.06	44.66	-0.01	-0.15	0.01	0.15
141			BOTTOM (UNITIZED) SIDED								
L	10		FOREMOST POINT ON FRAME	BEF	35.00	-23.34	21.71				
				AFT	44.70	-21.35	21.93	9.70	1.99	0.22	9.90
R	10		FOREMOST POINT ON FRAME	BEF	34.61	22.89	21.52				
				AFT	44.09	20.59	21.85	9.48	-2.30	0.33	9.76
L	20		RAIL MID-POINT OF #10 & #30	BEF	49.68	-21.76	22.30				
				AFT	52.46	-21.25	23.20	2.78	0.51	0.90	2.97
R	20		RAIL MID-POINT OF #10 & #30	BEF	50.70	21.04	22.98				
				AFT	52.67	20.78	25.33	1.97	-0.34	2.35	3.09
L	30		FORWARD OF SPRING POCKET	BEF	67.00	-20.55	23.58				
				AFT	67.75	-20.09	24.48	0.75	0.46	0.90	1.26
R	30		FORWARD OF SPRING POCKET	BEF	66.42	19.99	23.40				
				AFT	67.65	19.49	24.81	1.23	-0.50	1.41	1.93
L	40		POINT AFT OF SPRING POCKET	BEF	73.33	-20.20	23.70				
				AFT	73.83	-20.15	23.61	0.50	0.05	0.91	1.04
R	40		POINT AFT OF SPRING POCKET	BEF	72.82	19.34	23.85				
				AFT	74.29	19.26	23.68	1.37	-0.58	0.83	1.70

\* VALUE WAS TRANSLATED

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## \*\* POINT COORDINATES \*\*

UNIT NO	SIDE	PNT NO	DESCRIPTION		INCHES			INCHES CHANGED			
					LONG X	LAT Y	VERT Z	X	Y	Z	D
L	50		FLOOR PAN OUTBOARD OF RAIL/FRONT	BEF	88.48	-21.57	14.39	0.15	-0.52	-0.15	0.56
				AFT	88.61	-22.09	14.24				
R	50		FLOOR PAN OUTBOARD OF RAIL/FRONT	BEF	87.69	21.84	14.25	0.17	-0.07	-0.28	0.33
				AFT	87.86	20.97	13.97				
L	60		MID POINT OF #40 & #70	BEF	82.85	-16.38	12.67	0.24	-0.55	0.14	0.62
				AFT	83.19	-16.93	12.81				
R	60		MID POINT OF #40 & #70	BEF	83.12	15.17	12.83	0.07	-0.18	0.03	0.20
				AFT	83.19	15.99	12.86				
L	70		AFT END OF RAIL	BEF	109.84	-16.27	13.37	0.15	-0.43	-0.82	0.94
				AFT	109.99	-16.78	12.55				
R	70		AFT END OF RAIL	BEF	109.95	16.07	13.33	0.01	0.02	-0.60	0.60
				AFT	109.96	16.09	12.73				
L	80		FLOOR PAN OUTBOARD OF AFT END OF RAIL	BEF	110.63	-20.51	14.15	0.06	-0.41	-0.53	0.67
				AFT	110.69	-20.92	13.62				
R	80		FLOOR PAN OUTBOARD OF AFT END OF RAIL	BEF	110.75	20.44	14.02	-0.13	-0.12	-0.37	0.41
				AFT	110.62	20.32	13.68				
650			BLANK UNIT POINTS								
01	1		SEE COMMENTS PAGE	BEF	88.48	-26.81	14.09	0.18	-0.49	-0.01	0.52
				AFT	88.66	-27.30	14.08				
02	2		SEE COMMENTS PAGE	BEF	156.15	-26.25	13.81	0.00	0.00	0.00	0.00
				AFT	156.15	-26.25	13.81				
03	3		SEE COMMENTS PAGE	BEF	88.38	26.58	14.81				
				AFT							
04	4		SEE COMMENTS PAGE	BEF	155.77	26.46	14.81	-0.18	-3.18	0.00	3.15
				AFT	155.62	29.31	14.81				
05	5		SEE COMMENTS PAGE	BEF	128.07	-28.74	13.69	0.03	-1.19	0.00	1.19
				AFT	128.10	-29.93	13.69				

## \*\* POINT COORDINATES \*\*

## INCHES

## INCHES CHANGED

DWT NO	SIDE	PWT NO	DESCRIPTION		LONG	LAT	VERT	INCHES CHANGED				
					X	Y	Z	X	Y	Z	D	
06	6		SEE COMMENTS PAGE	BEF	127.77	28.62	13.75					
				AFT	127.64	28.52	13.76	-0.13	-0.10	0.01	0.01	
07	7		SEE COMMENTS PAGE	BEF	78.47	-15.04	12.61					
				AFT	79.49	-15.82	13.04	1.02	-0.79	0.42	1.36	
08	8		SEE COMMENTS PAGE	BEF	78.70	15.07	12.77					
				AFT	80.00	14.62	13.11	1.30	-0.45	0.34	1.42	
09	9		SEE COMMENTS PAGE	BEF	42.94	-21.46	17.97					
				AFT	45.29	-22.94	18.15	2.35	-1.28	0.18	2.68	
10	10		SEE COMMENTS PAGE	BEF	43.82	21.50	17.96					
				AFT	45.15	21.92	19.04	2.43	0.42	1.08	2.69	
11	11		SEE COMMENTS PAGE	BEF	195.98	28.71	41.38					
				AFT	195.16	28.35	41.76	-0.82	-0.36	0.38	0.57	

\* VALUE WAS TRANSLATED

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## \*\* SECTIONALS \*\*

UNIT NO	SCEN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	X	Y	Z
640	81			DRIVER C/L SECTION LOSS			
			1	AFTER	107.26	-14.89	13.45
			2	AFTER	105.03	-14.89	13.15
			3	AFTER	97.87	-14.89	13.03
			4	AFTER	94.99	-14.89	12.99
			5	AFTER	93.38	-14.89	13.59
			6	AFTER	92.57	-14.89	13.33
			7	AFTER	91.53	-14.89	13.45
			8	AFTER	89.68	-14.89	13.66
			9	AFTER	85.51	-14.89	14.08
			10	AFTER	80.74	-14.89	18.17
			11	AFTER	78.99	-14.89	19.68
			12	AFTER	77.56	-14.89	21.59
			13	AFTER	77.49	-14.89	24.47
			14	AFTER	76.90	-14.89	26.60
			15	AFTER	76.87	-14.89	27.46
			16	AFTER	76.19	-14.89	28.30
			17	AFTER	76.23	-14.89	33.40
			18	AFTER	76.94	-14.89	34.29
			19	AFTER	77.17	-14.89	36.95

ASC TO #: T- TC1775

TARGET DIMENSIONAL ANALYSIS REPORT

CRASH #: 12050

\*\* SECTIONALS \*\*

UNIT NO	SECTN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	-- INCHES		
					X	Y	Z
641	81			VEHICLE C/L SECTION LOW			
			1	AFTER	106.03	-0.30	16.61
			2	AFTER	104.98	-0.30	16.57
			3	AFTER	104.55	-0.30	16.42
			4	AFTER	101.53	-0.30	16.13
			5	AFTER	100.95	-0.30	16.21
			6	AFTER	96.81	-0.30	15.20
			7	AFTER	96.46	-0.30	15.26
			8	AFTER	96.19	-0.30	15.43
			9	AFTER	95.24	-0.30	16.89
			10	AFTER	93.93	-0.30	17.20
			11	AFTER	91.82	-0.30	17.81
			12	AFTER	90.19	-0.30	18.44
			13	AFTER	88.01	-0.30	18.70
			14	AFTER	85.84	-0.30	18.76
			15	AFTER	85.94	-0.30	19.40
			16	AFTER	80.59	-0.30	20.01
			17	AFTER	79.11	-0.30	20.21
			18	AFTER	78.20	-0.30	21.04
			19	AFTER	78.19	-0.30	22.18

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## \*\* SECTIONALS \*\*

UNIT NO	SCIN NO	SIDE	SEQ NO	NAME AND CRASH STATUS	-- INCHES		
					X	Y	Z
			20	AFTER	77.72	-0.30	22.64
			21	AFTER	77.79	-0.30	24.09
			22	AFTER	77.81	-0.30	24.58
			23	AFTER	76.82	-0.30	24.94
			24	AFTER	74.17	-0.30	25.68
			25	AFTER	75.75	-0.30	30.01
			26	AFTER	75.53	-0.30	36.26
			27	AFTER	75.53	-0.30	37.75

642 81

## PASSENGER C/L SECT/LONG

			1	AFTER	106.80	14.37	13.51
			2	AFTER	97.32	14.37	12.54
			3	AFTER	94.69	14.37	12.86
			4	AFTER	93.27	14.37	13.30
			5	AFTER	92.75	14.37	12.96
			6	AFTER	88.59	14.37	13.56
			7	AFTER	88.93	14.37	14.12
			8	AFTER	80.26	14.37	18.54
			9	AFTER	77.66	14.37	21.27
			10	AFTER	77.80	14.37	24.07
			11	AFTER	77.73	14.37	24.28

ASC TO #: T- TC1775

TARGET DIMENSIONAL ANALYSIS REPORT

CRASH #: 12050

\*\* SECTIONAL \*\*

UNIT NO	SCREW NO	SIDE	SEC NO	NAME AND CRASH STATUS	X	Y	INCHES Z
			12	AFTER	76.58	14.37	25.20
			13	AFTER	76.70	14.37	26.57
			14	AFTER	76.72	14.37	28.22
			15	AFTER	76.10	14.37	33.28
			16	AFTER	78.65	14.37	34.59
			17	AFTER	75.53	14.37	36.49
			18	AFTER	75.57	14.37	37.86

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ASC TO #1 T- FCL775

TARGET DIMENSIONAL ANALYSIS REPORT

CRASH #: 12050

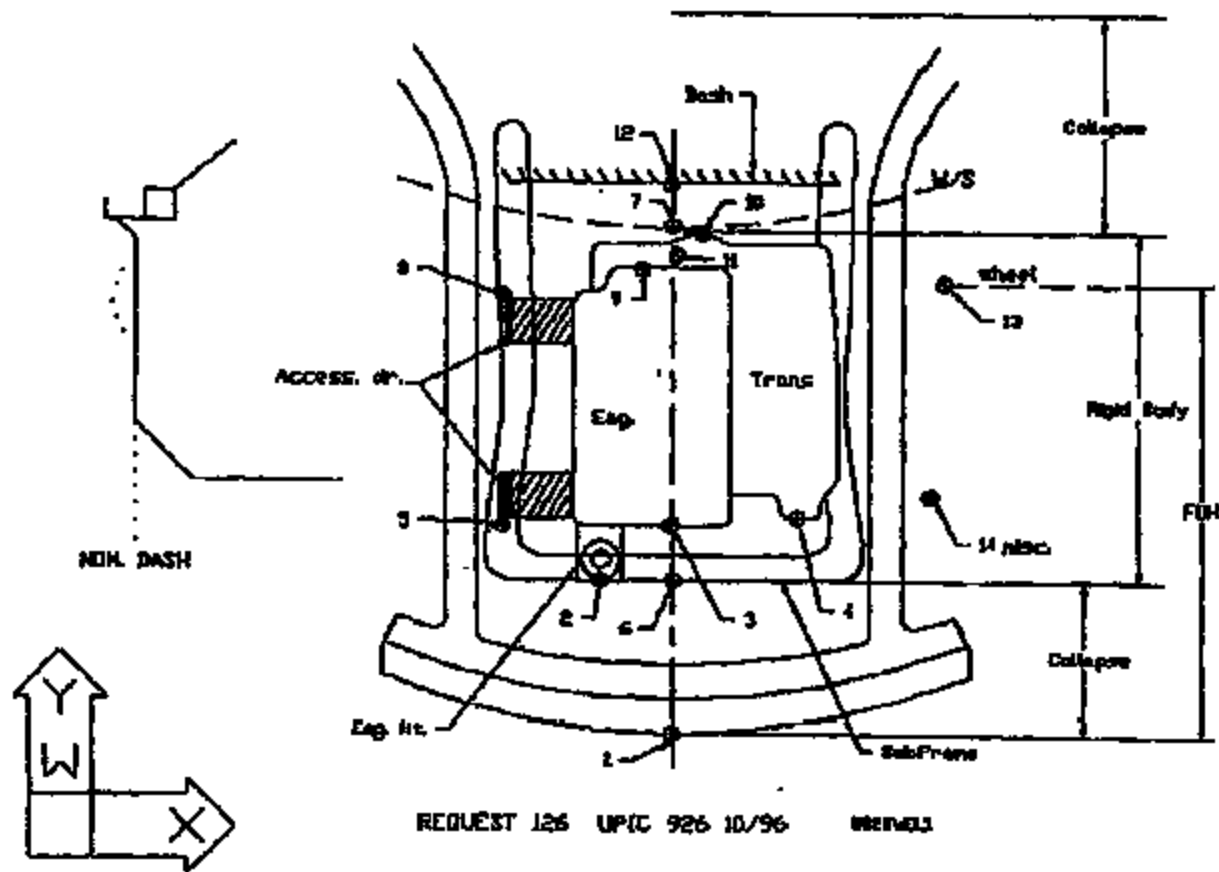
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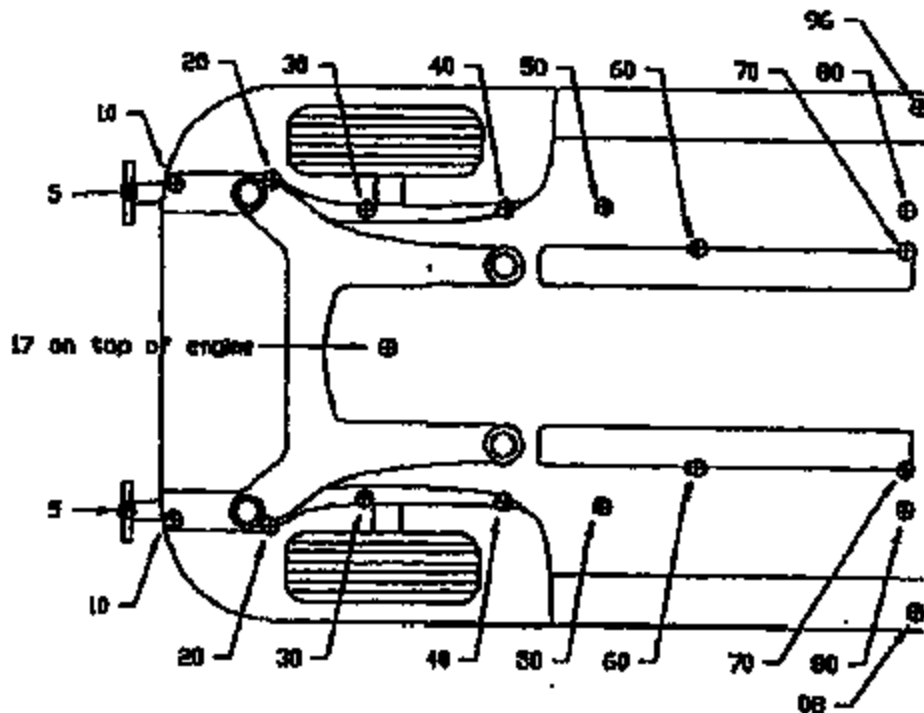
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COLLAPSE DISTANCE POINTS FOR COMPETITOR VEHICLES REQUEST 126  
 UNIT 156 POINTS 1-14 PRE CRASH ONLY



REQUEST 126 UPIC 926 10/96 000003

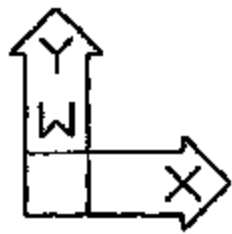
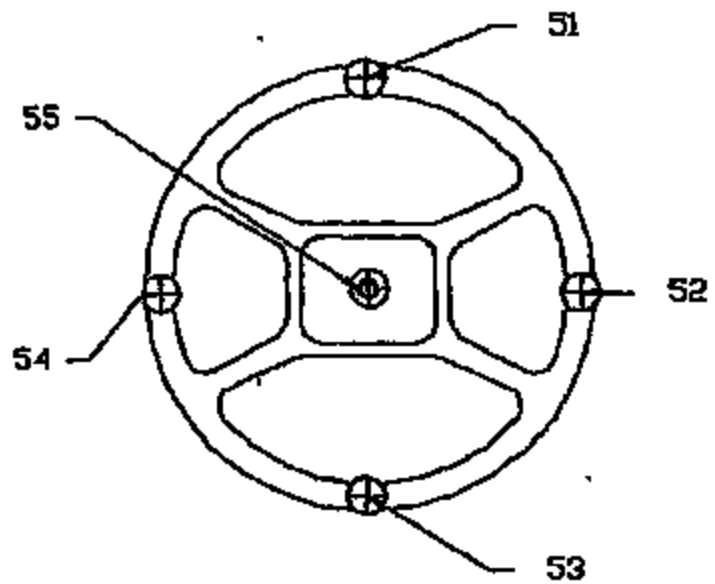
UNITIZED STANDARD BOTTOM CAR REQUEST 132  
 UNIT 124 POINTS 08,17,96  
 UNIT 141 POINTS 5,10,21,30,40,50,60,70,80 LEFT & RIGHT



REQUEST 132 UPJC 904 10/96

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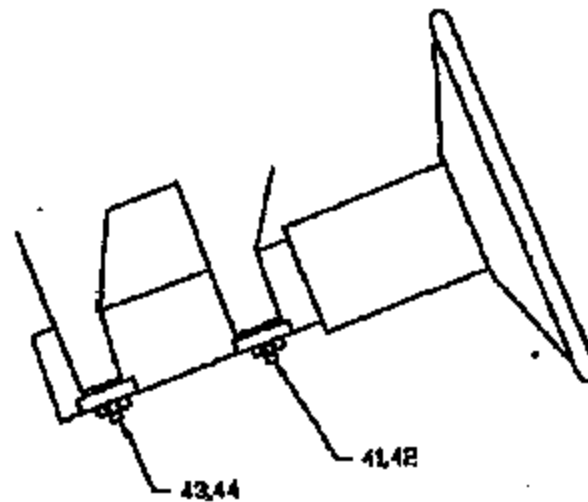
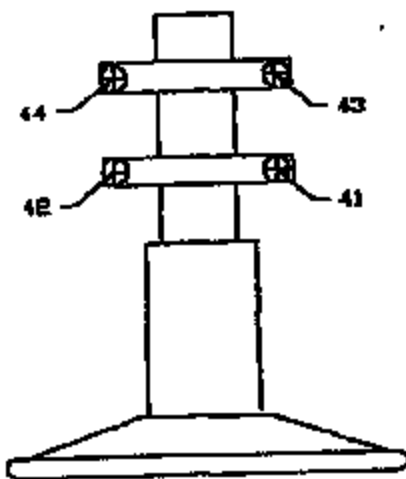
STEERING WHEEL PERIPHERY REQUEST 150  
UNIT 324 POINTS 51-55



REQUEST 150 UPIC 912 10/96

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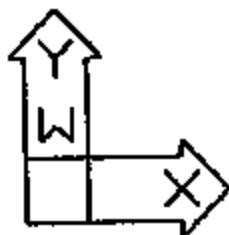
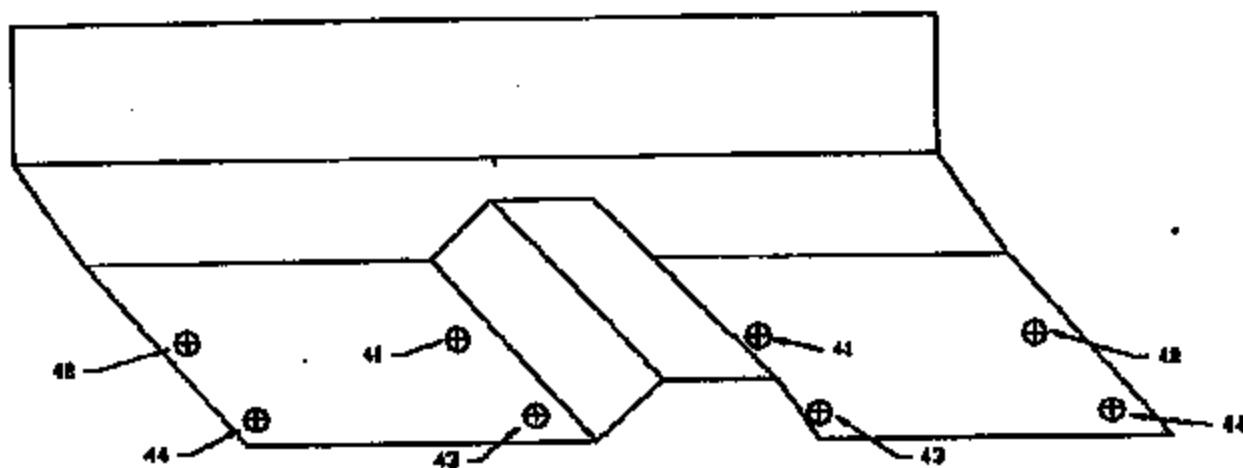
STEERING COLUMN MOUNTS REQUEST 153  
UNIT 124 POINTS 41-44



REQUEST 153 UPIC 913 10/96

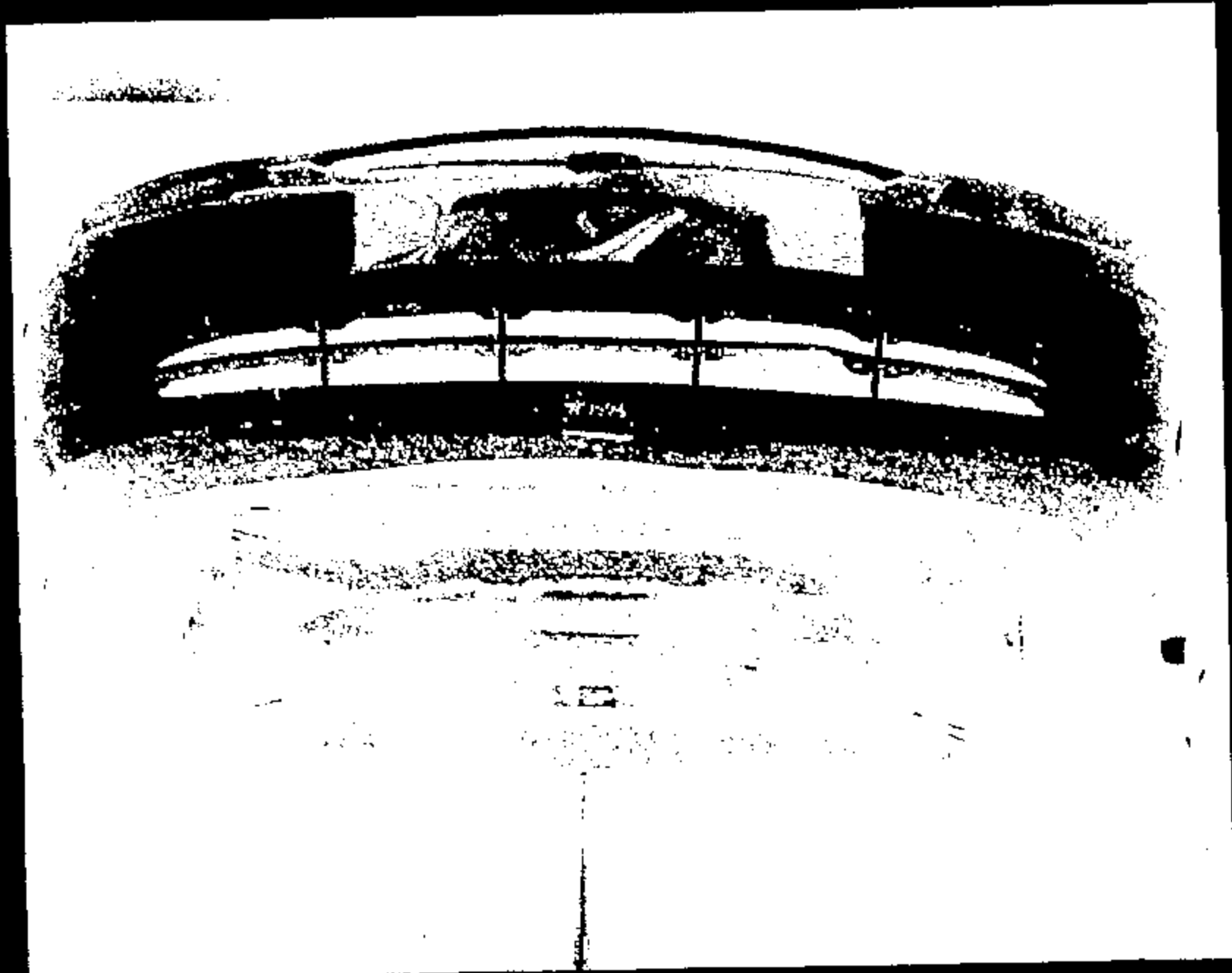
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SEAT TRACK TO FLOOR MOUNTS REQUEST 156  
UNIT 125 POINTS 41-44 LEFT AND RIGHT



REQUEST 156 UPIC 9/6 10/96

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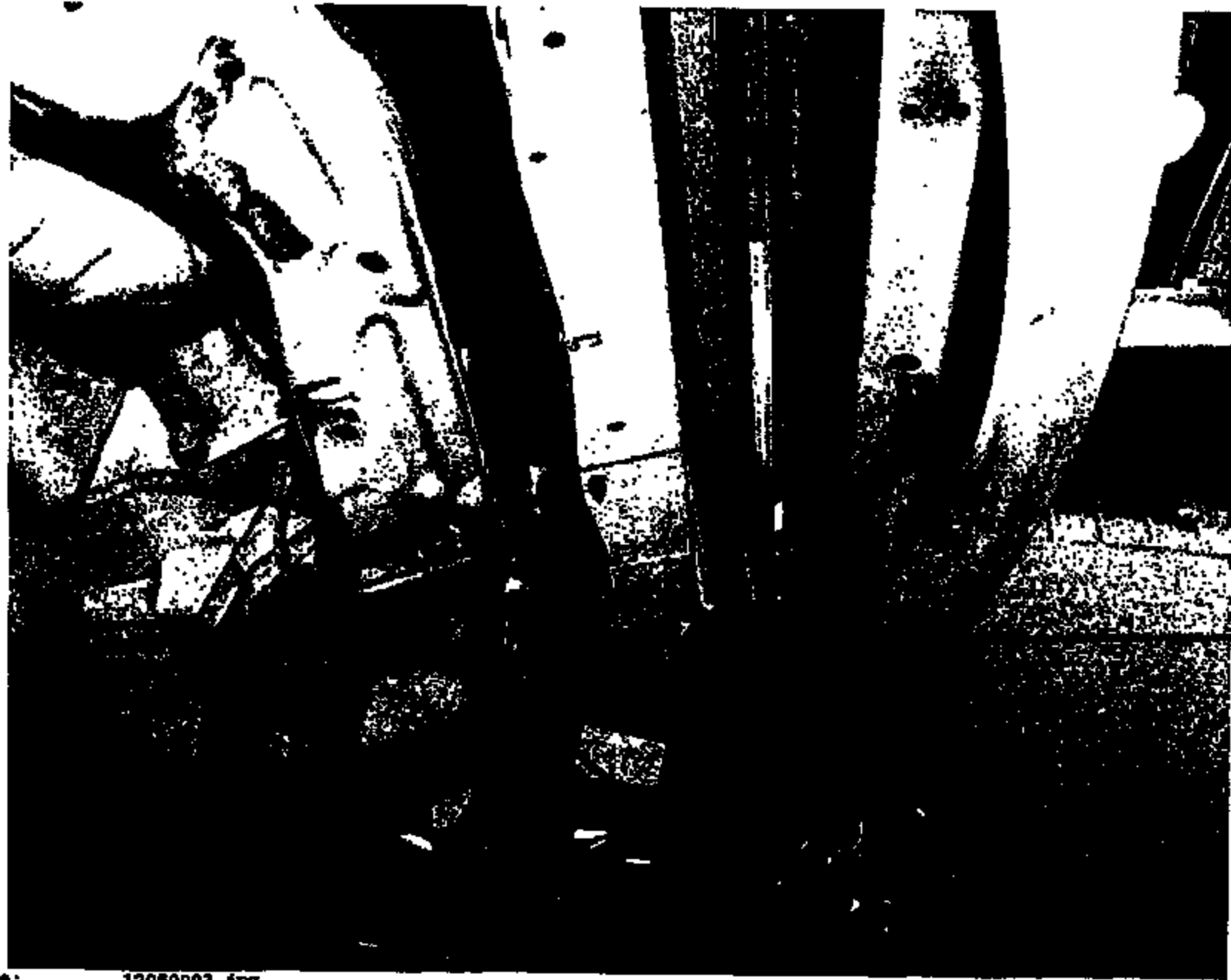


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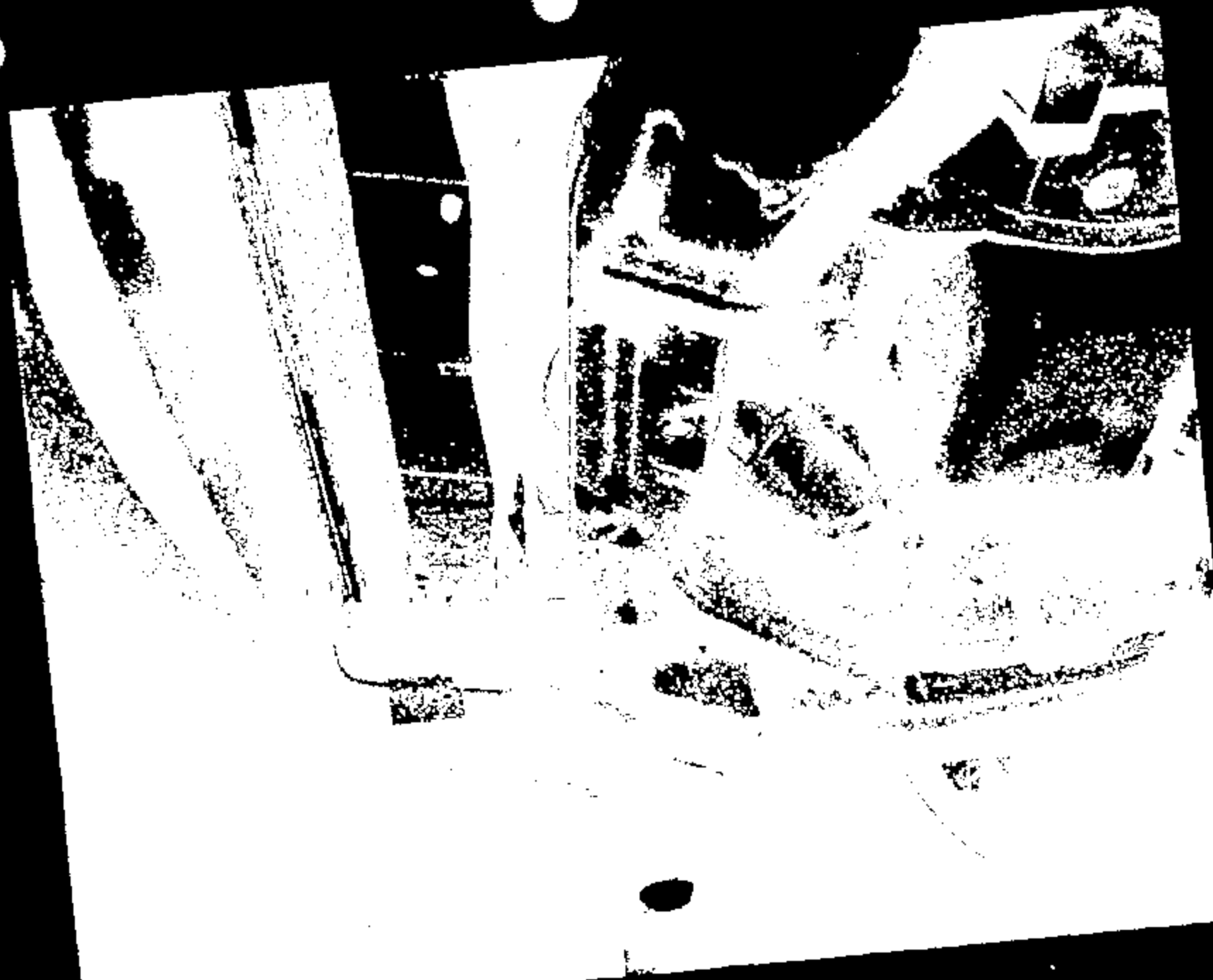


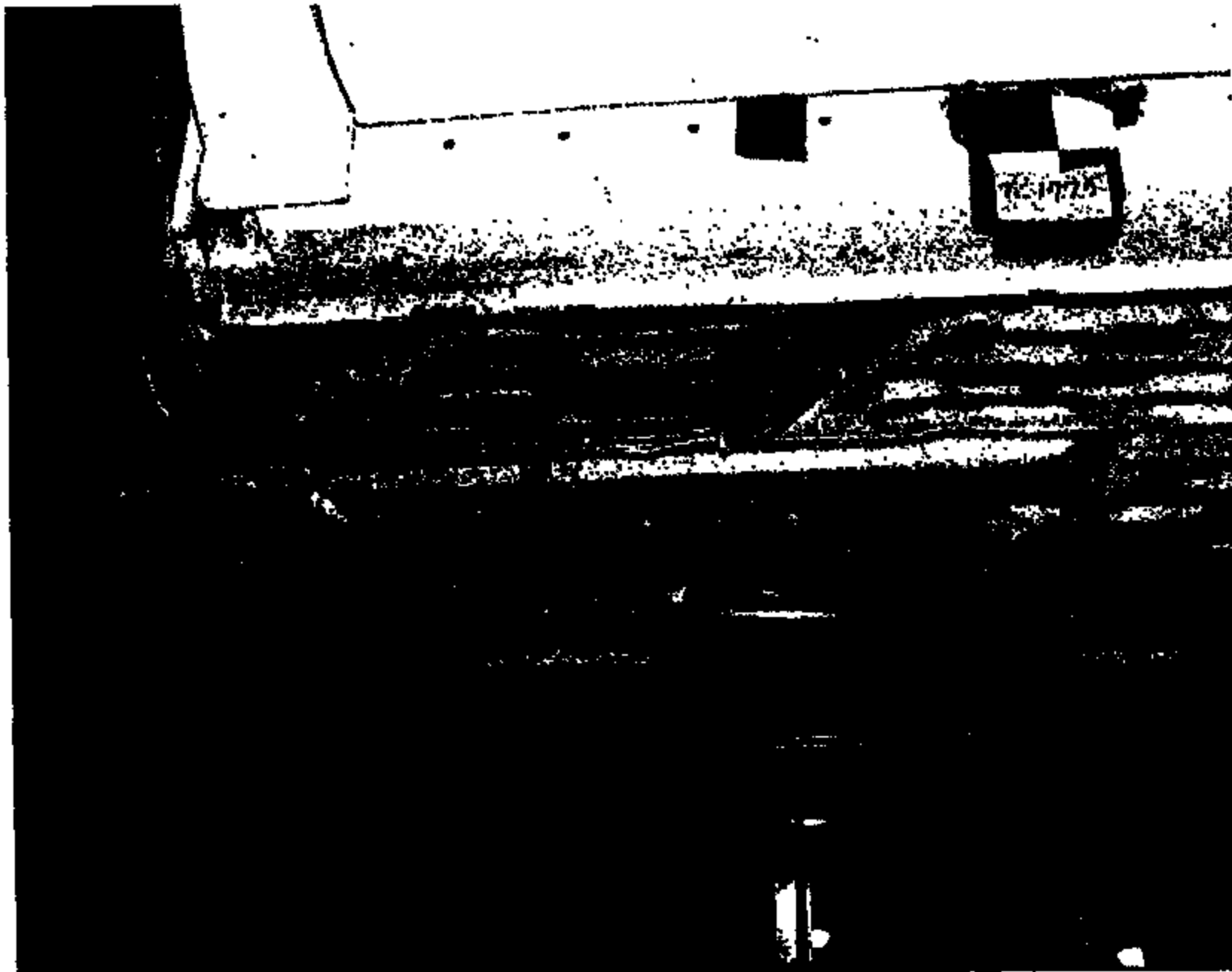


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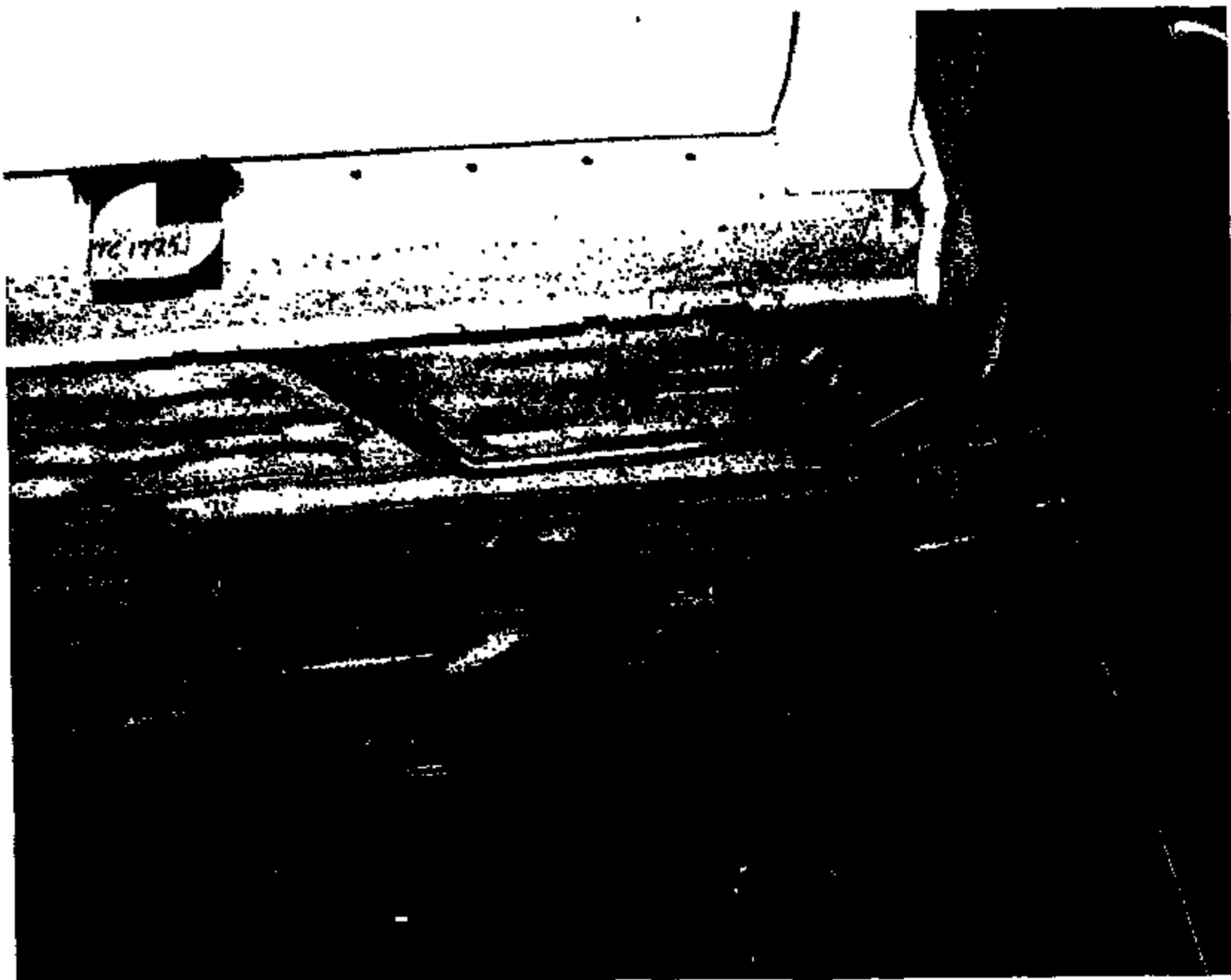


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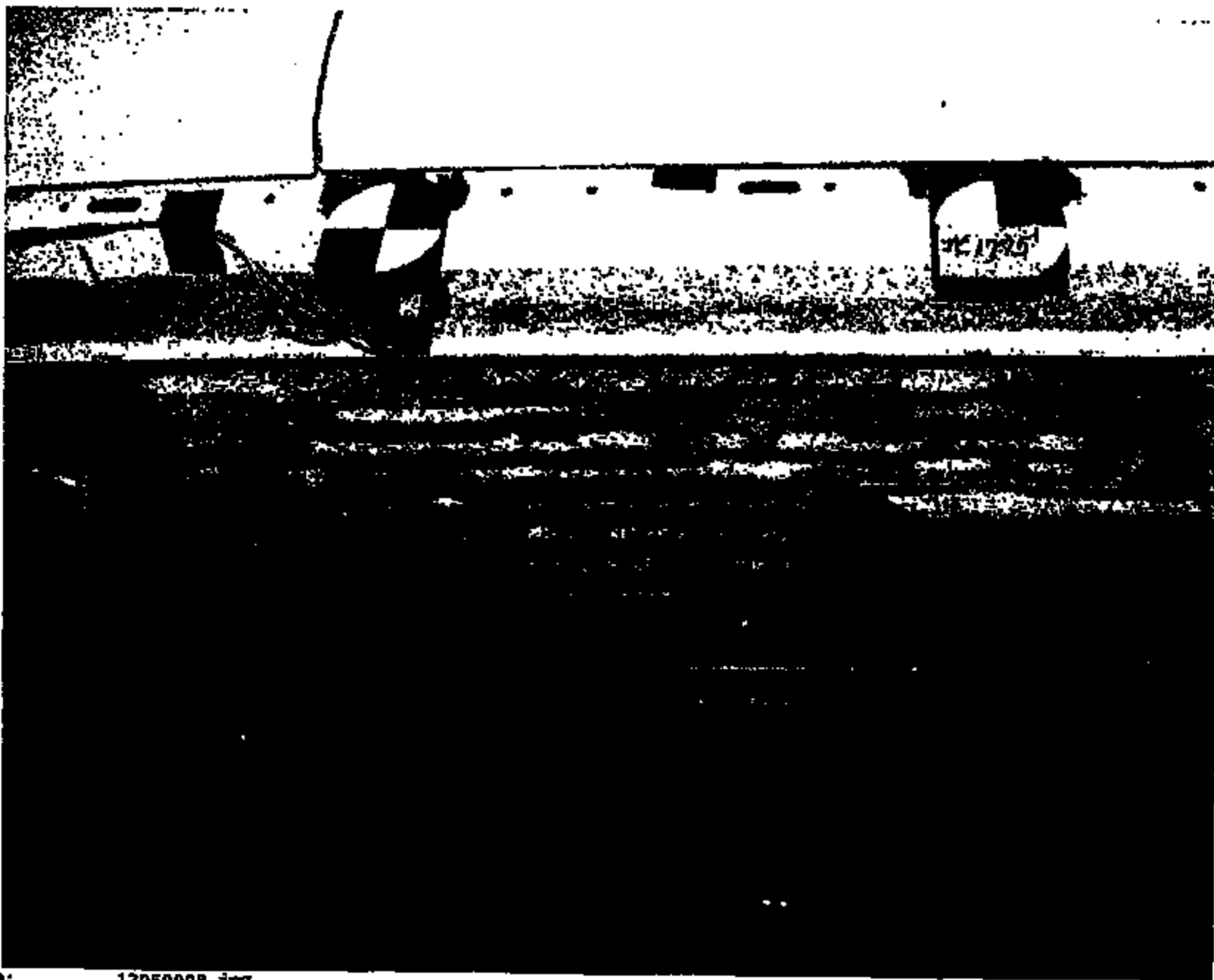
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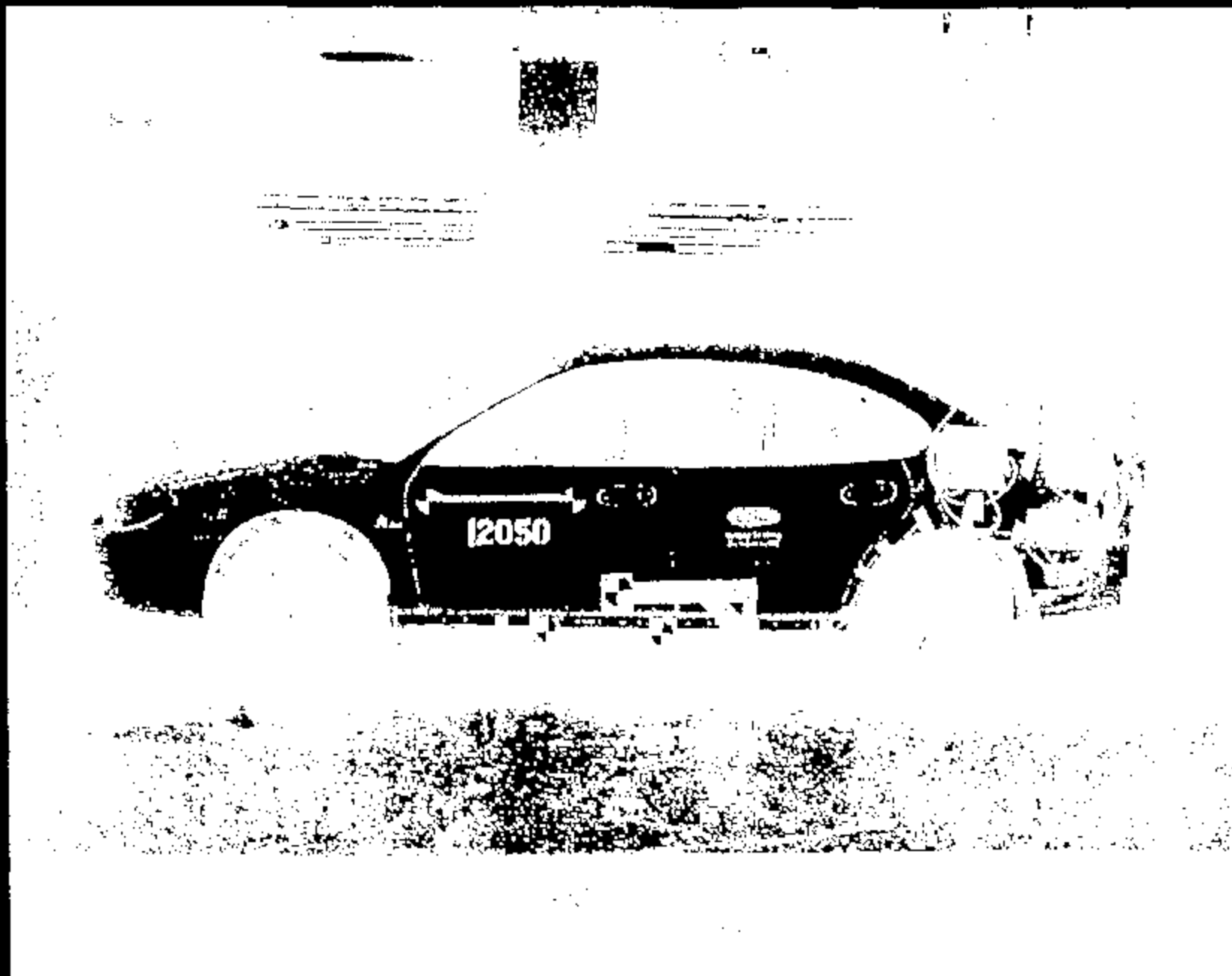
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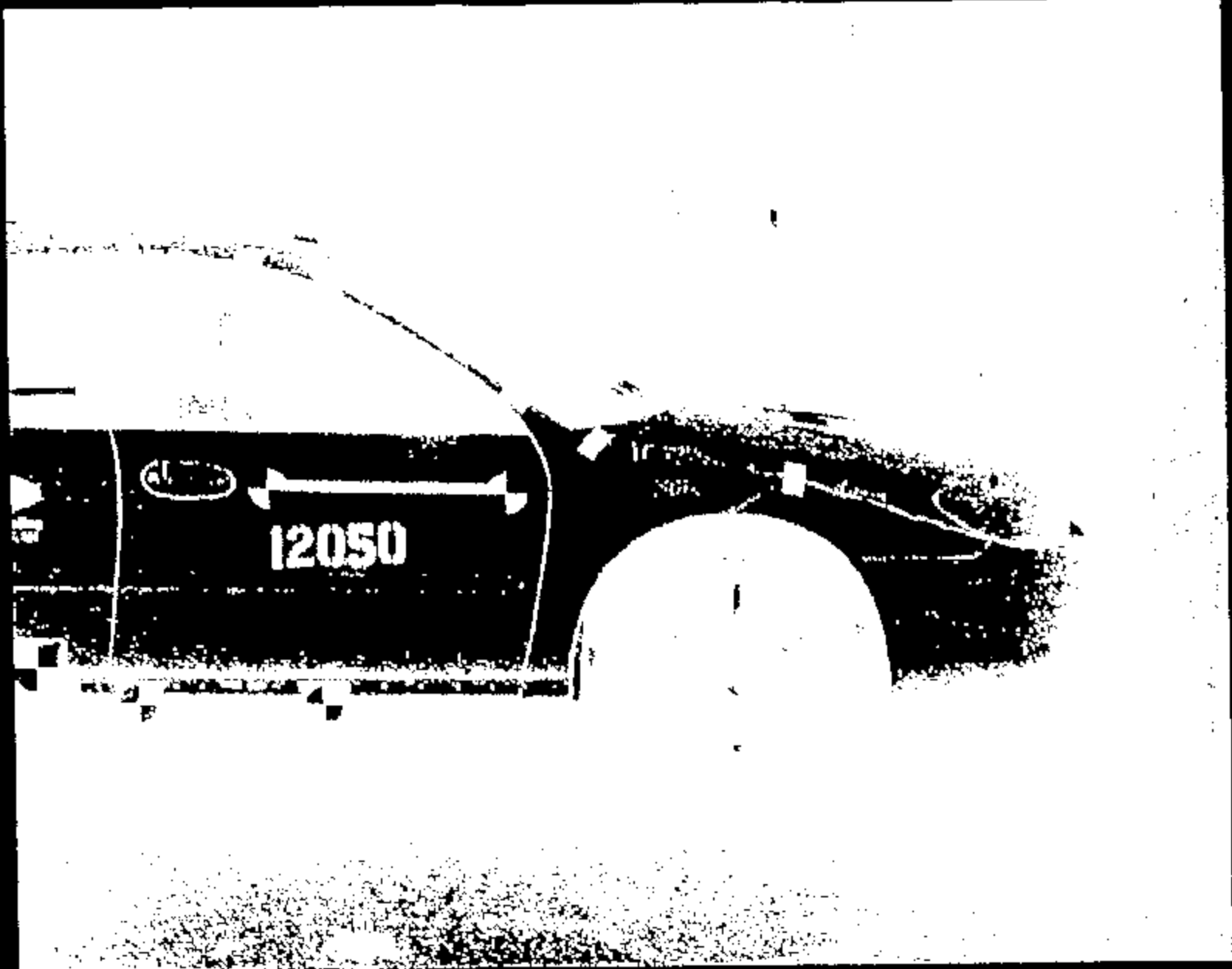




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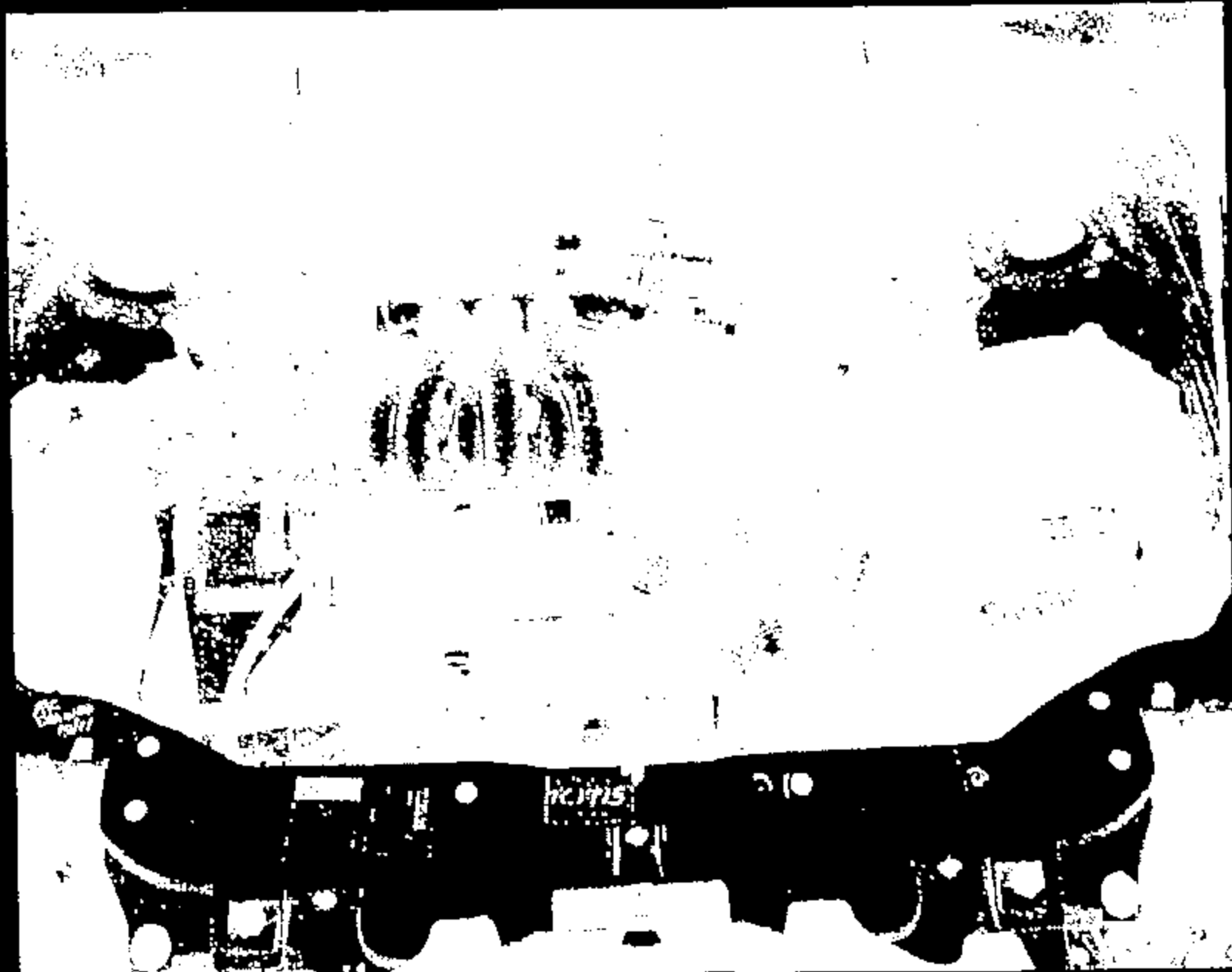
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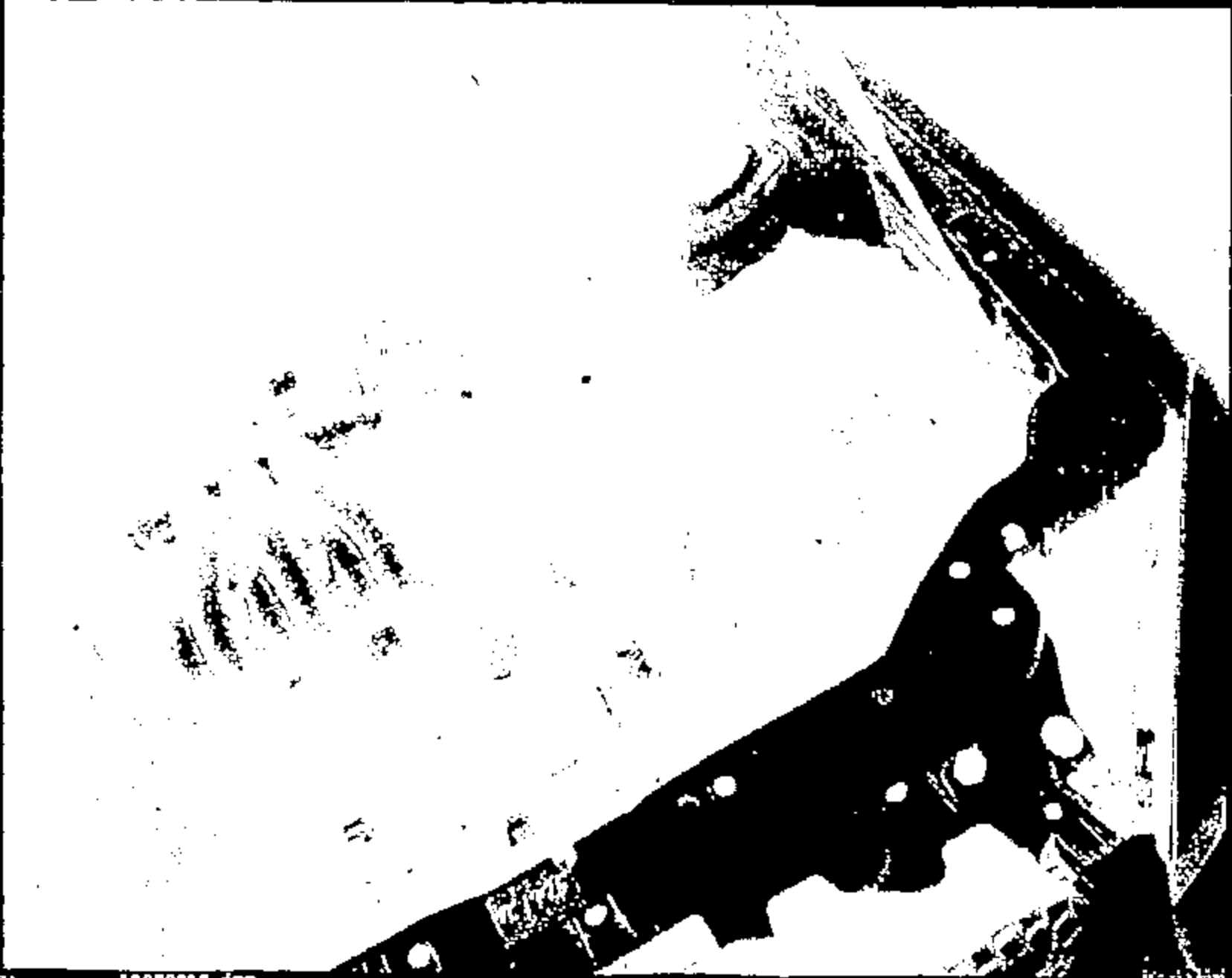
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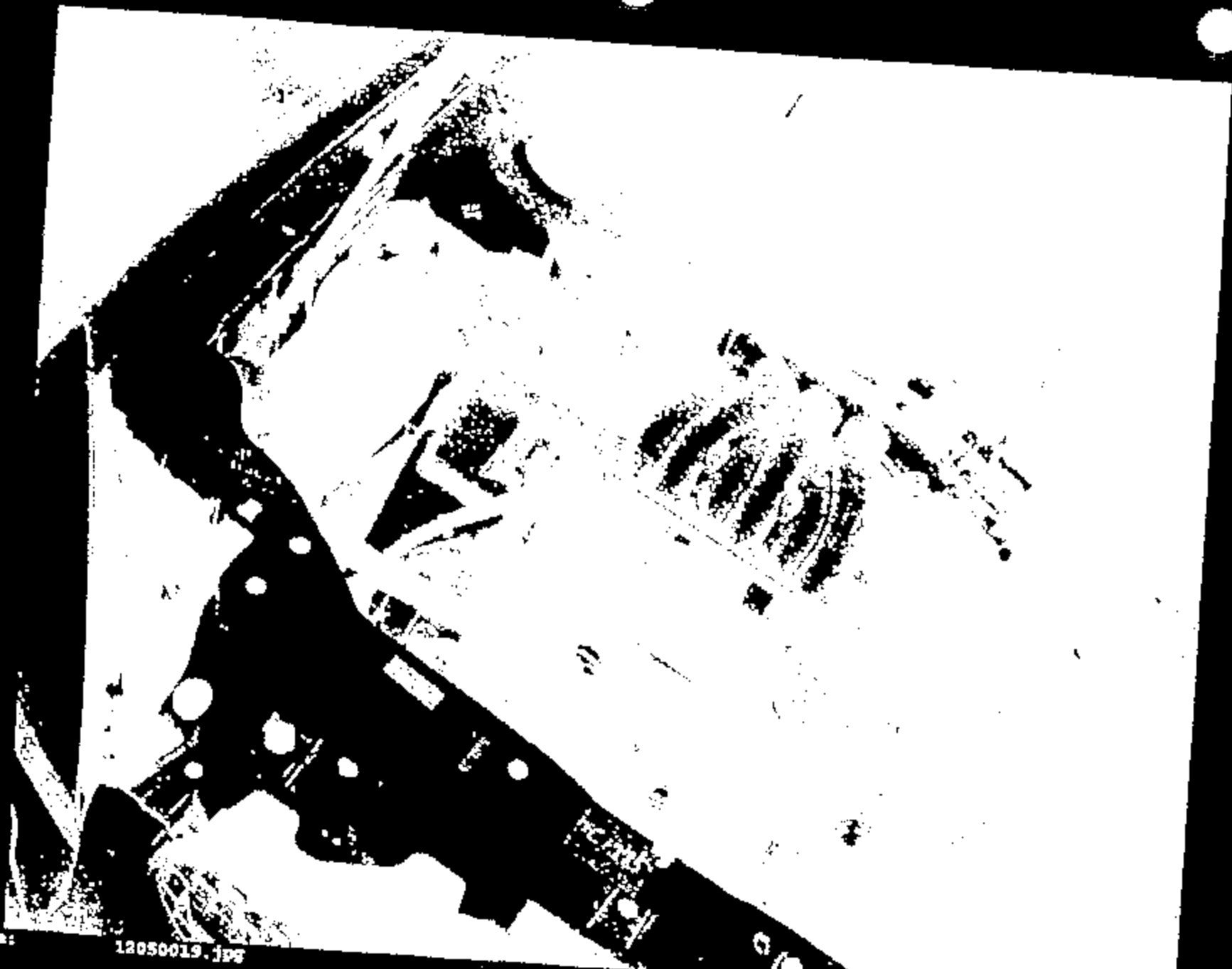


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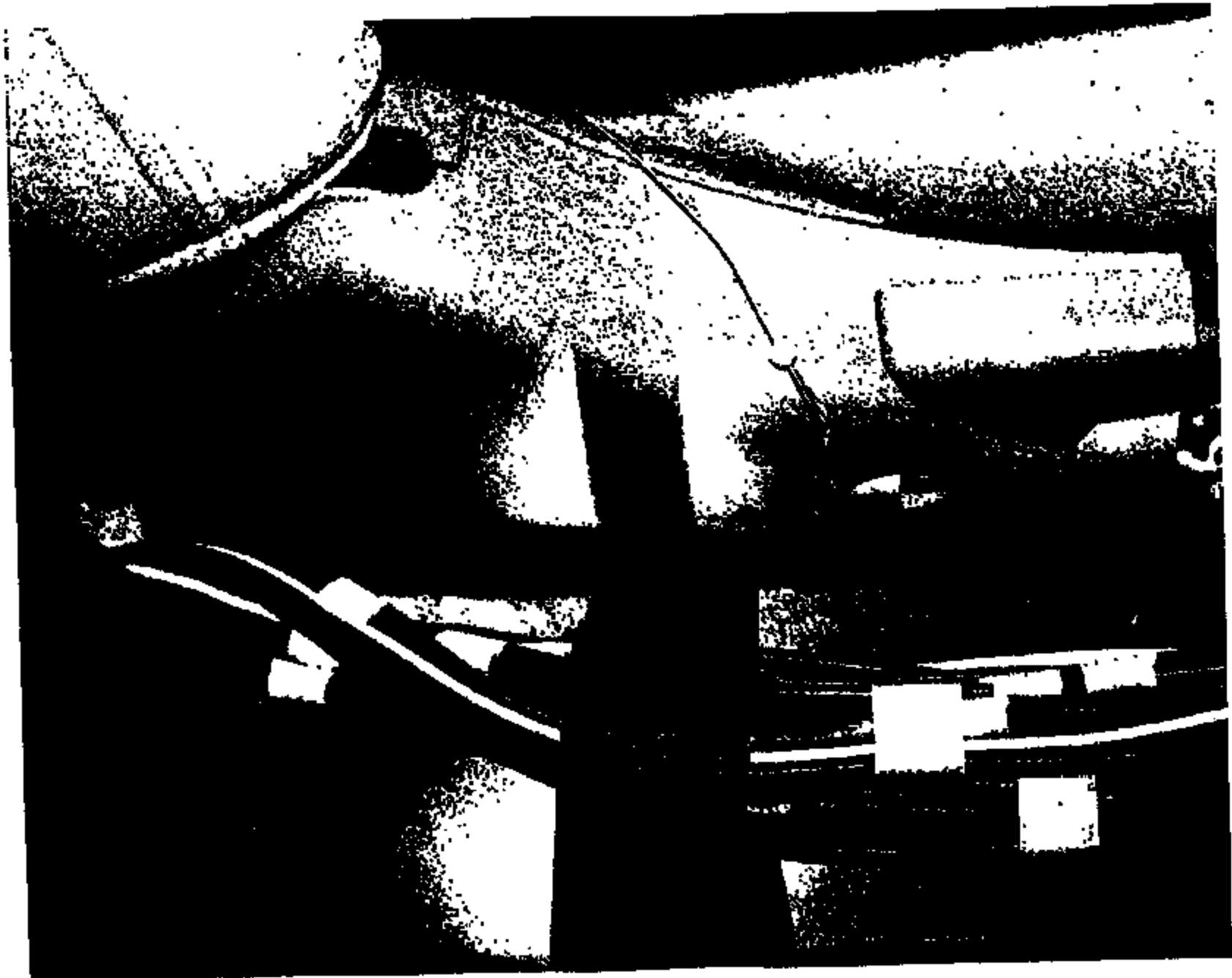


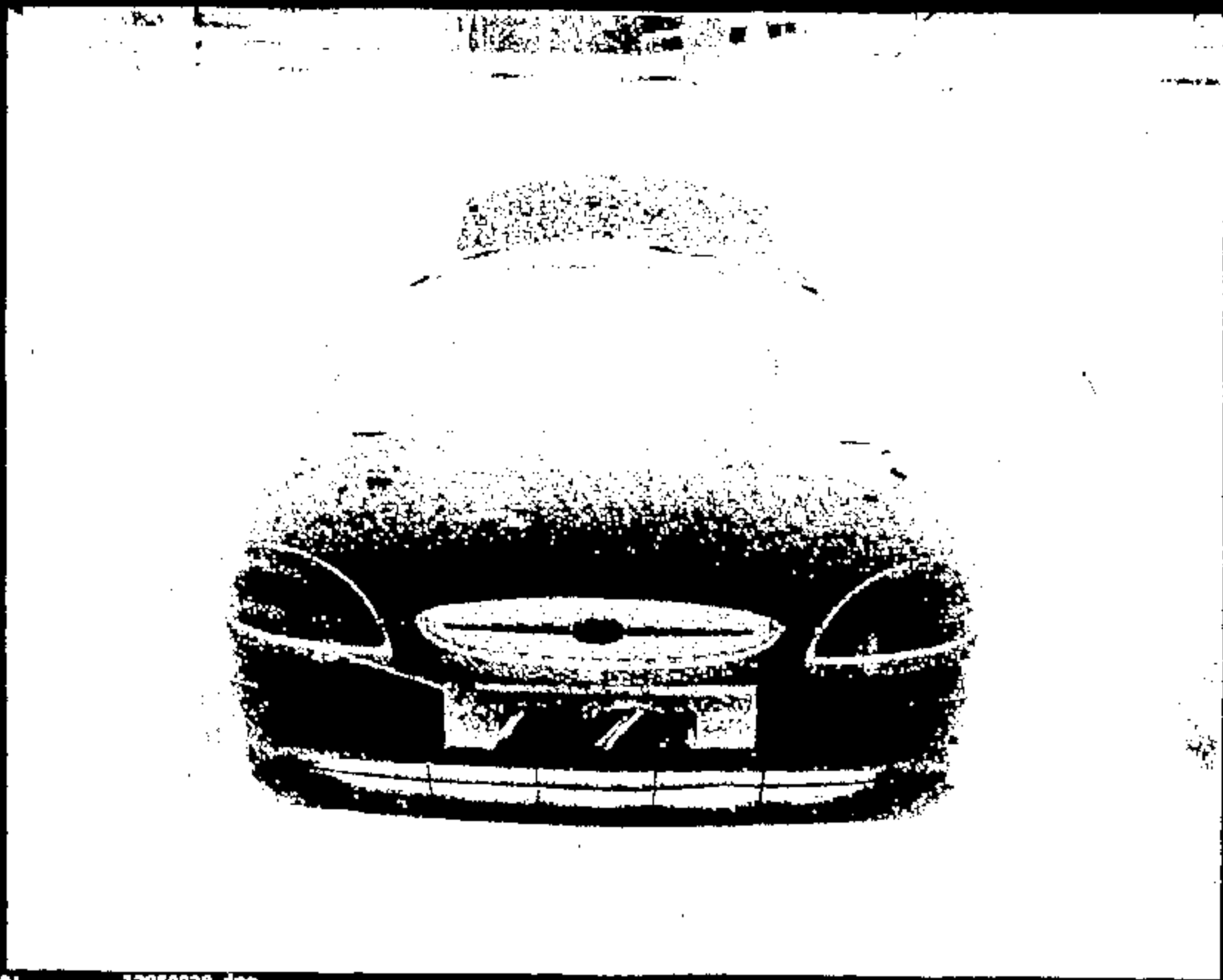
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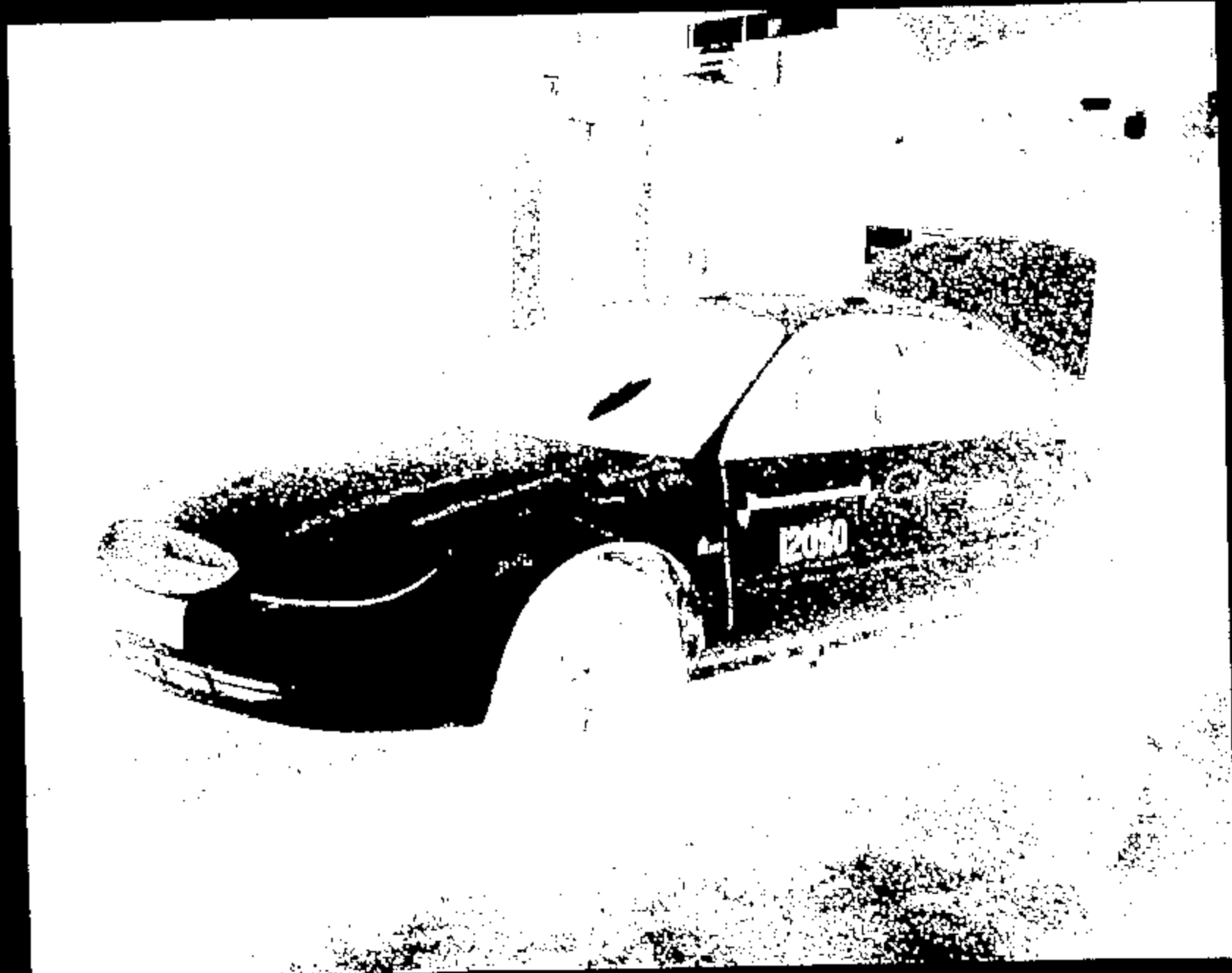


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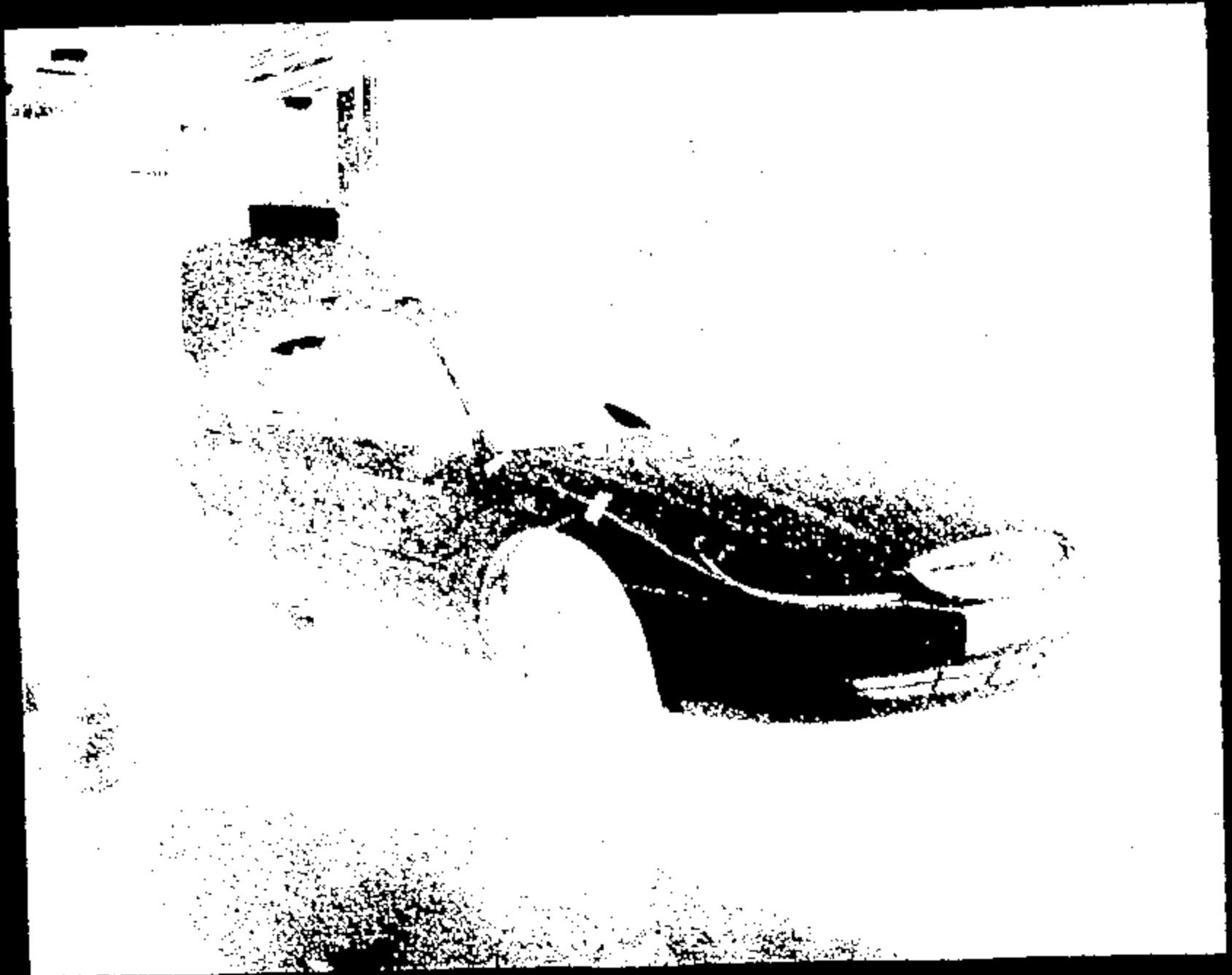
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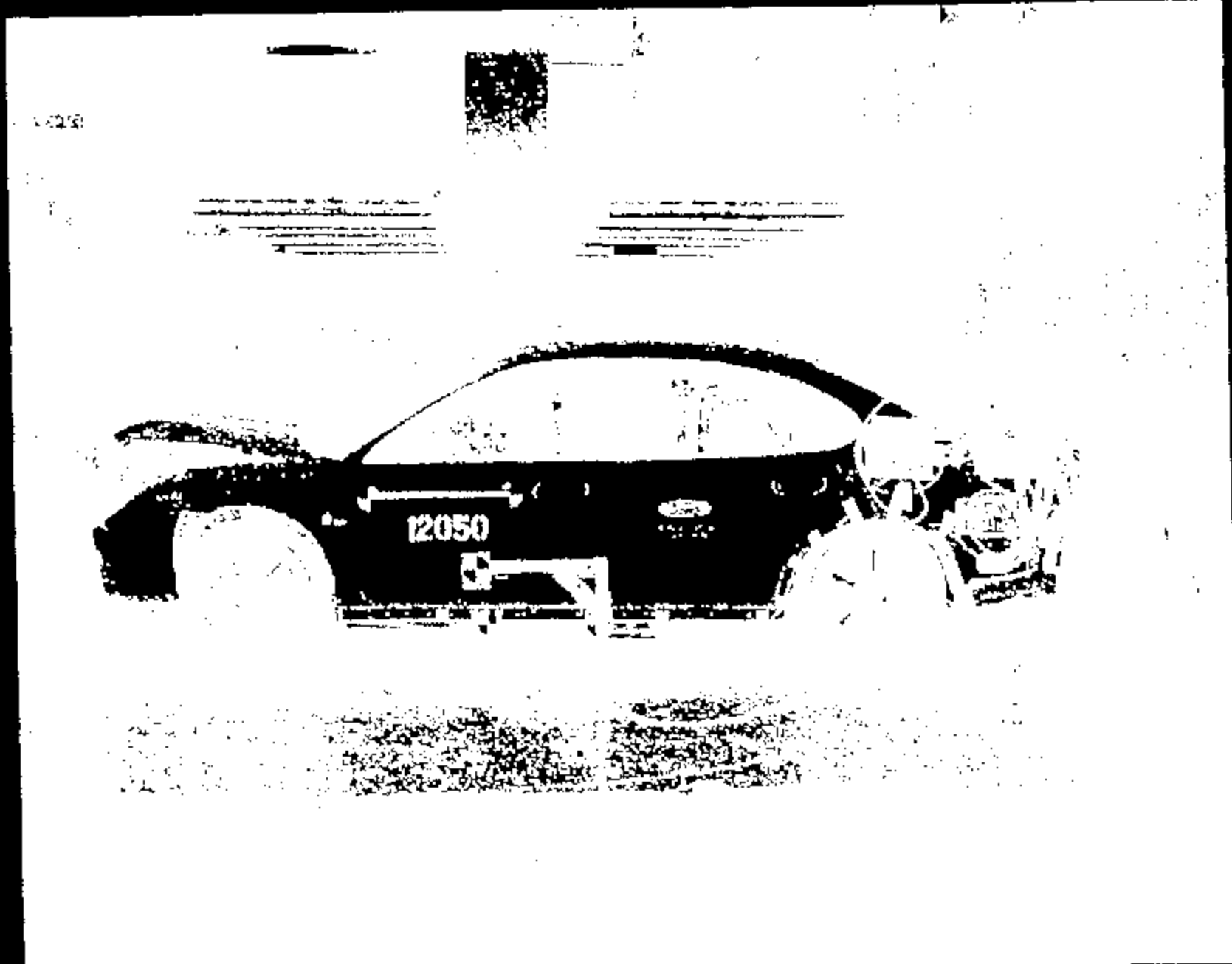
CRTS 0012050



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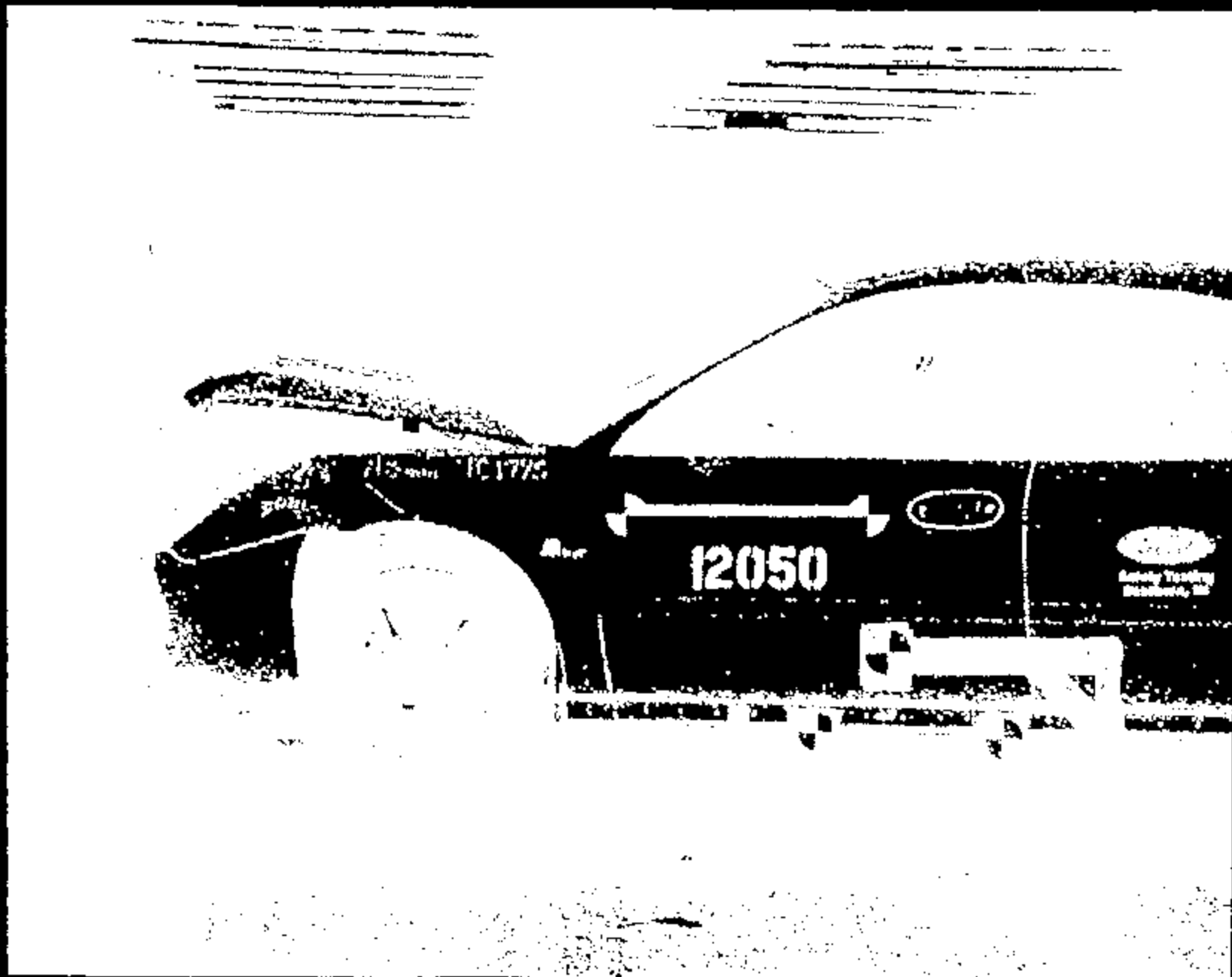
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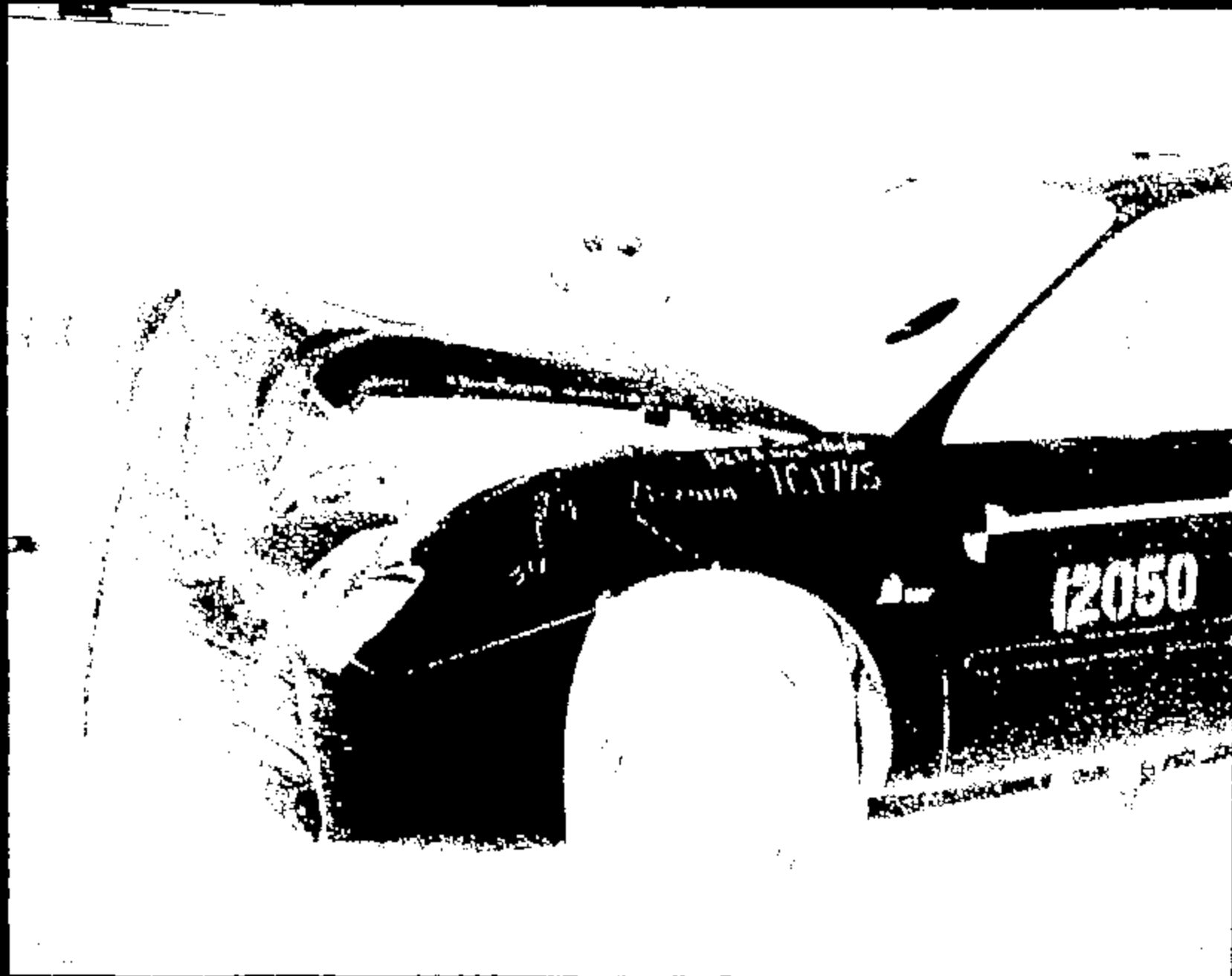
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CRTS 0012050



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CR15 0012050



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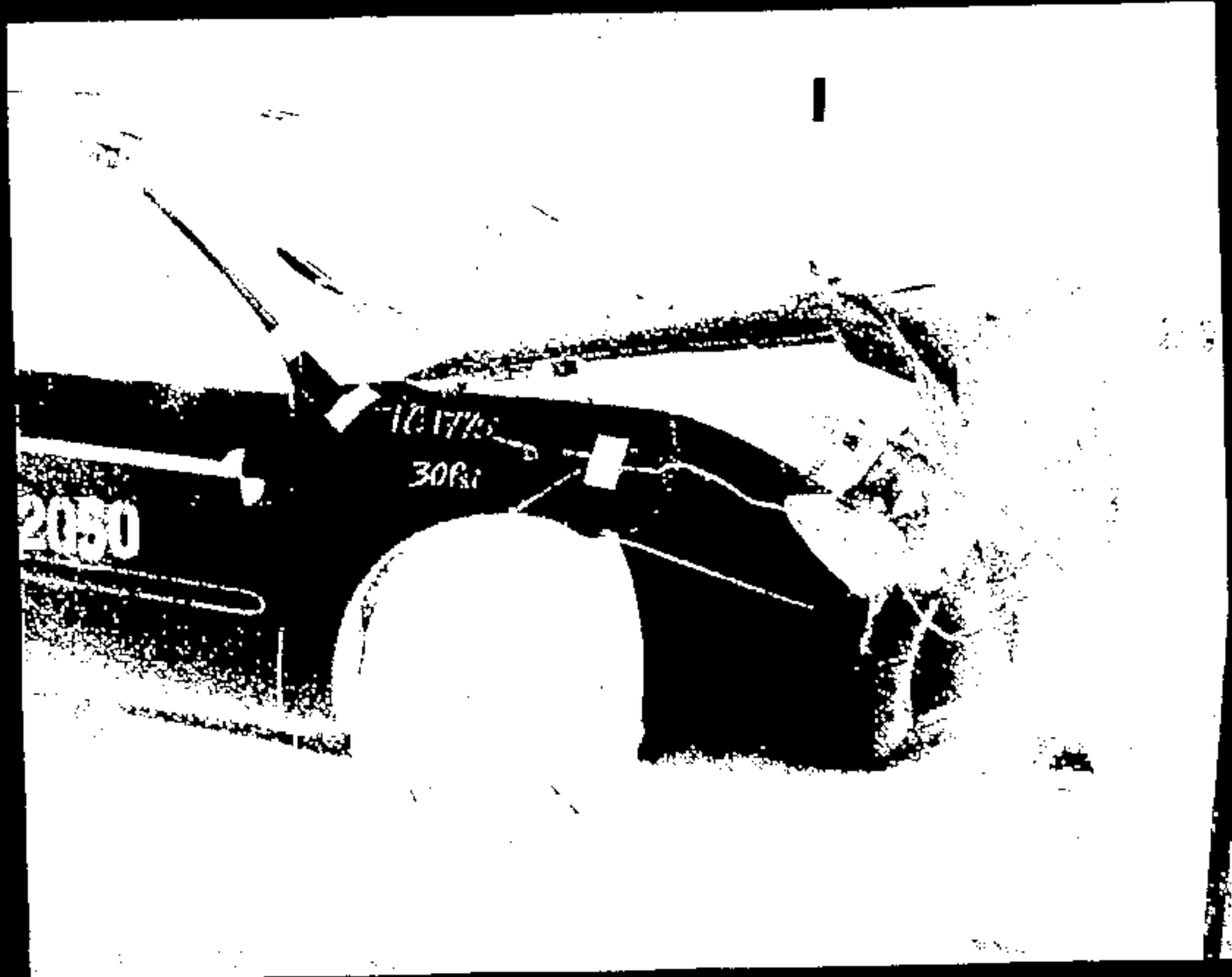


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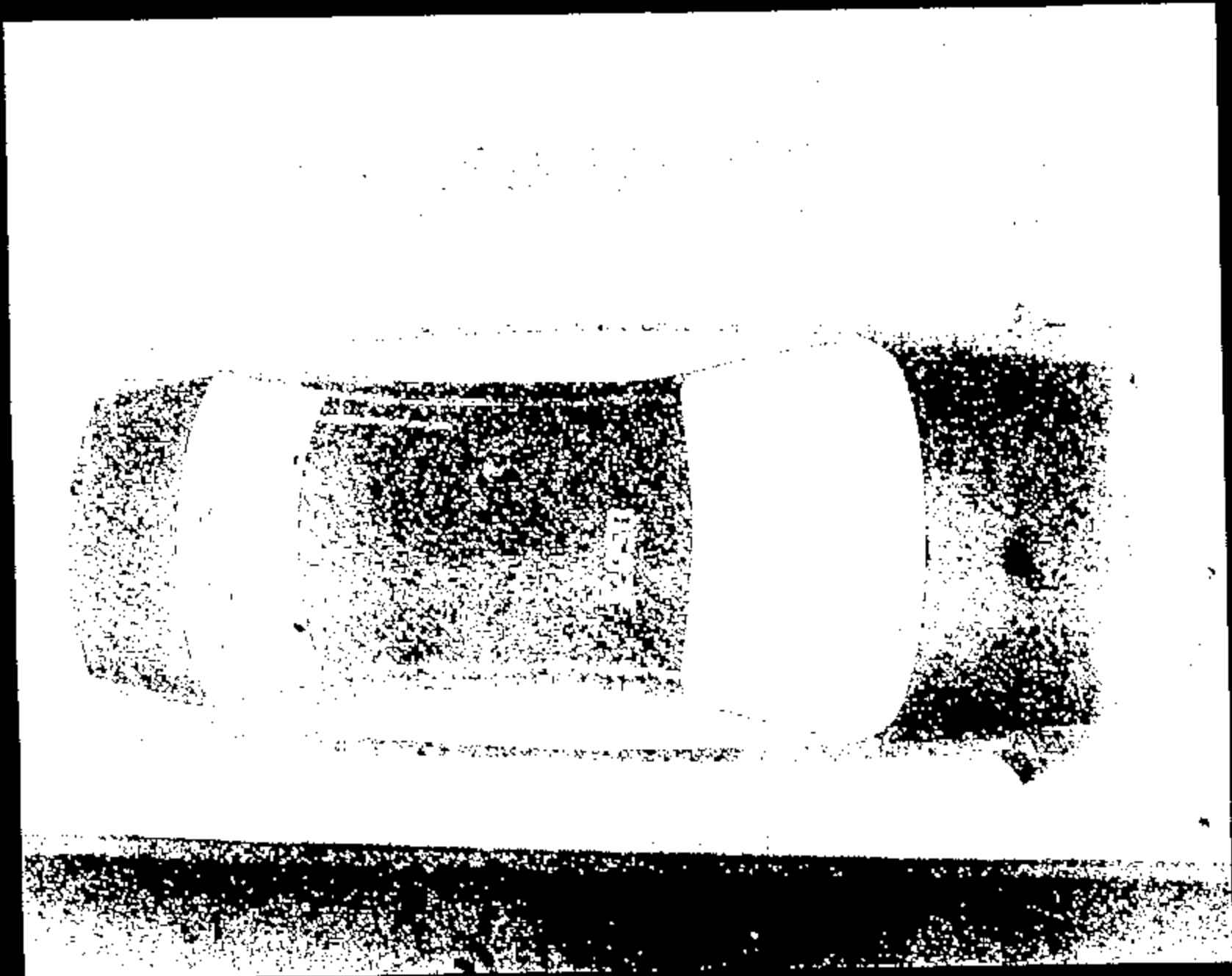
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Name :

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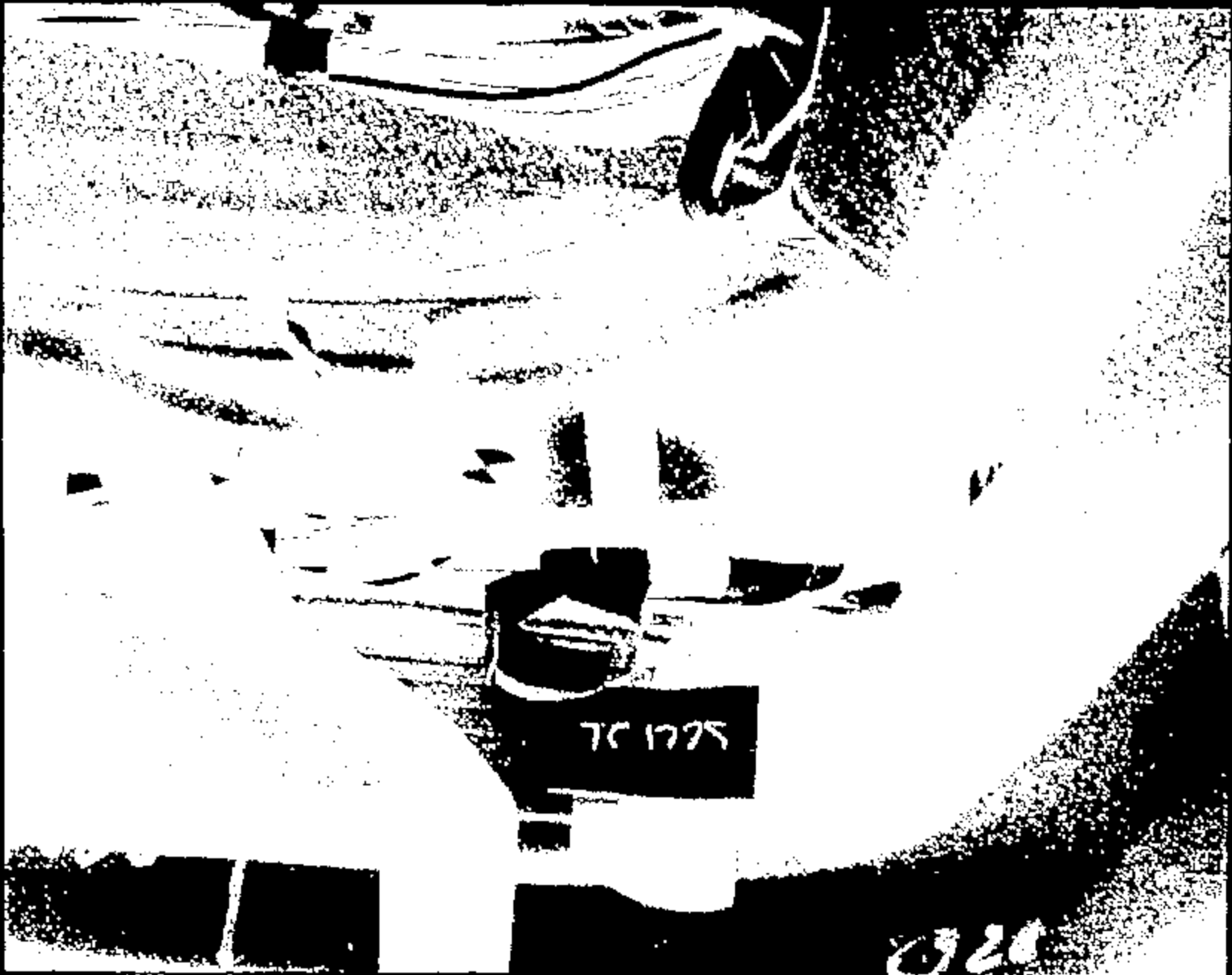
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Name: 12050042.jpg

020





Name :

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70-1074

CRTS 0012050

Name : 12050045.jpg



Name:

12050046.jpg



Name: 12050047.jpg



Name:

12050048.jpg



Name :

12050049.jpg

CRJS 0012050



75 P/F 10/20





Name:

12050051.jpg



Name :

12050052 - jpf



Image: 12050053.jpg

CRTS 0012050



Image: 12050054.jpg



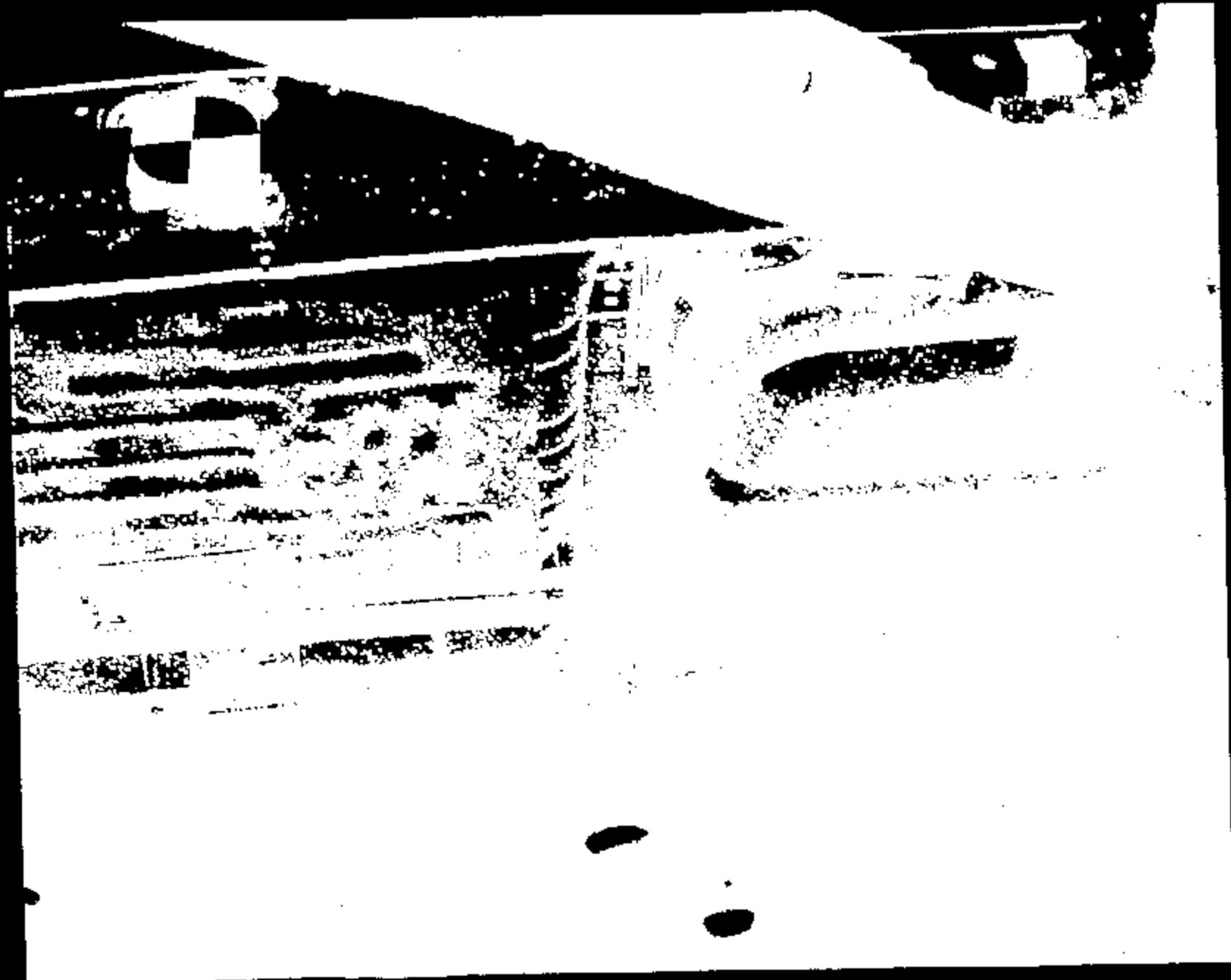
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Name : 12050057.jpg



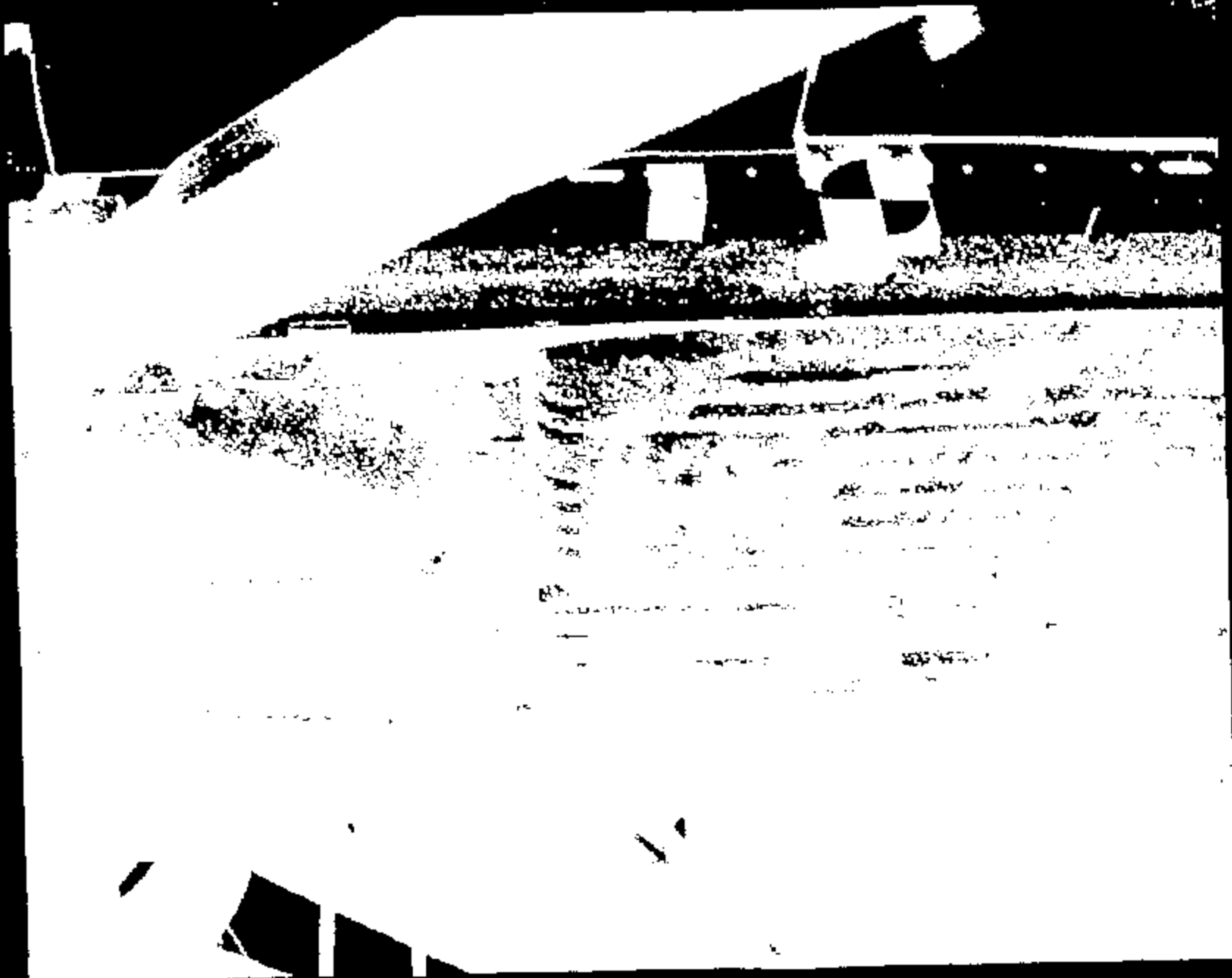
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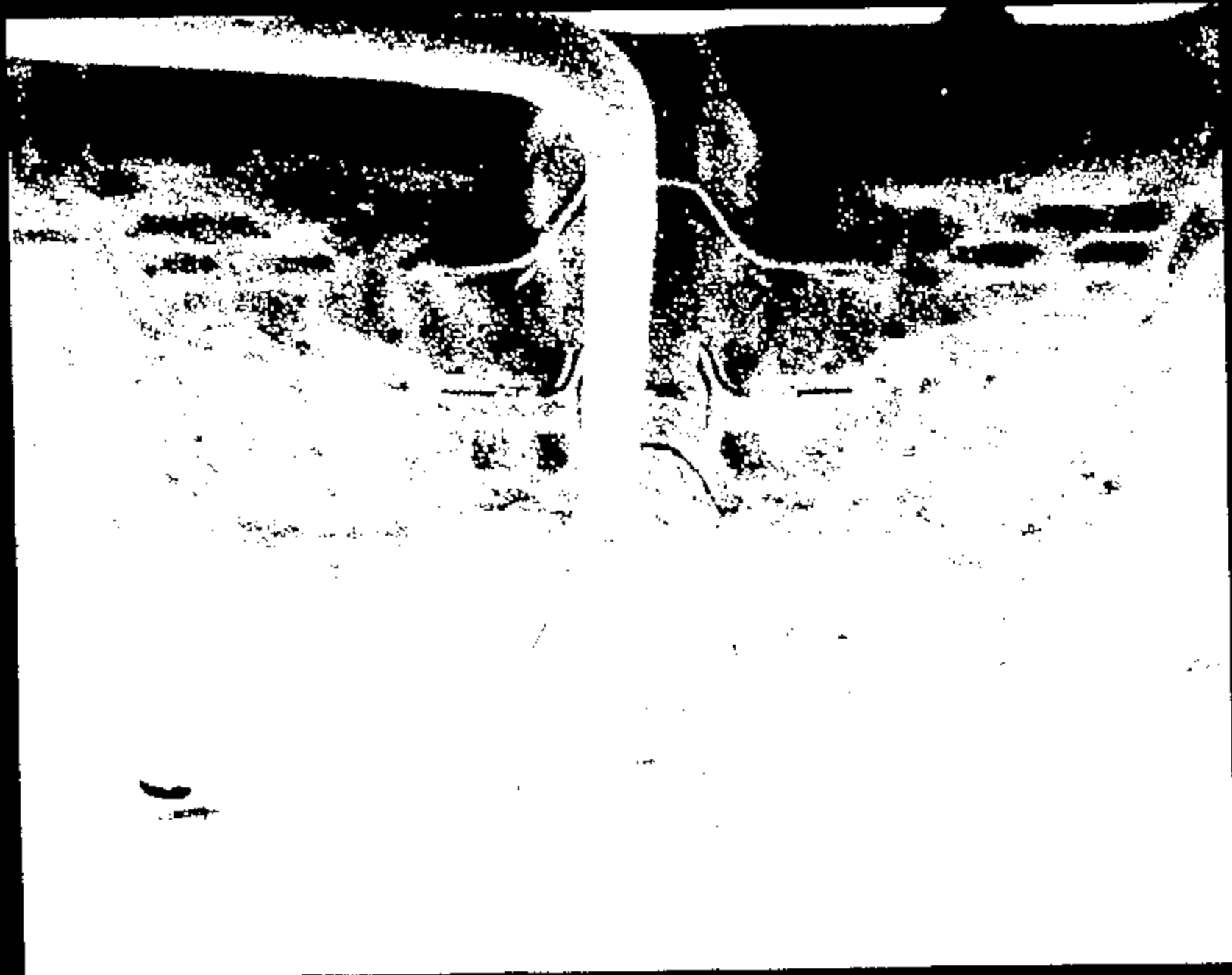




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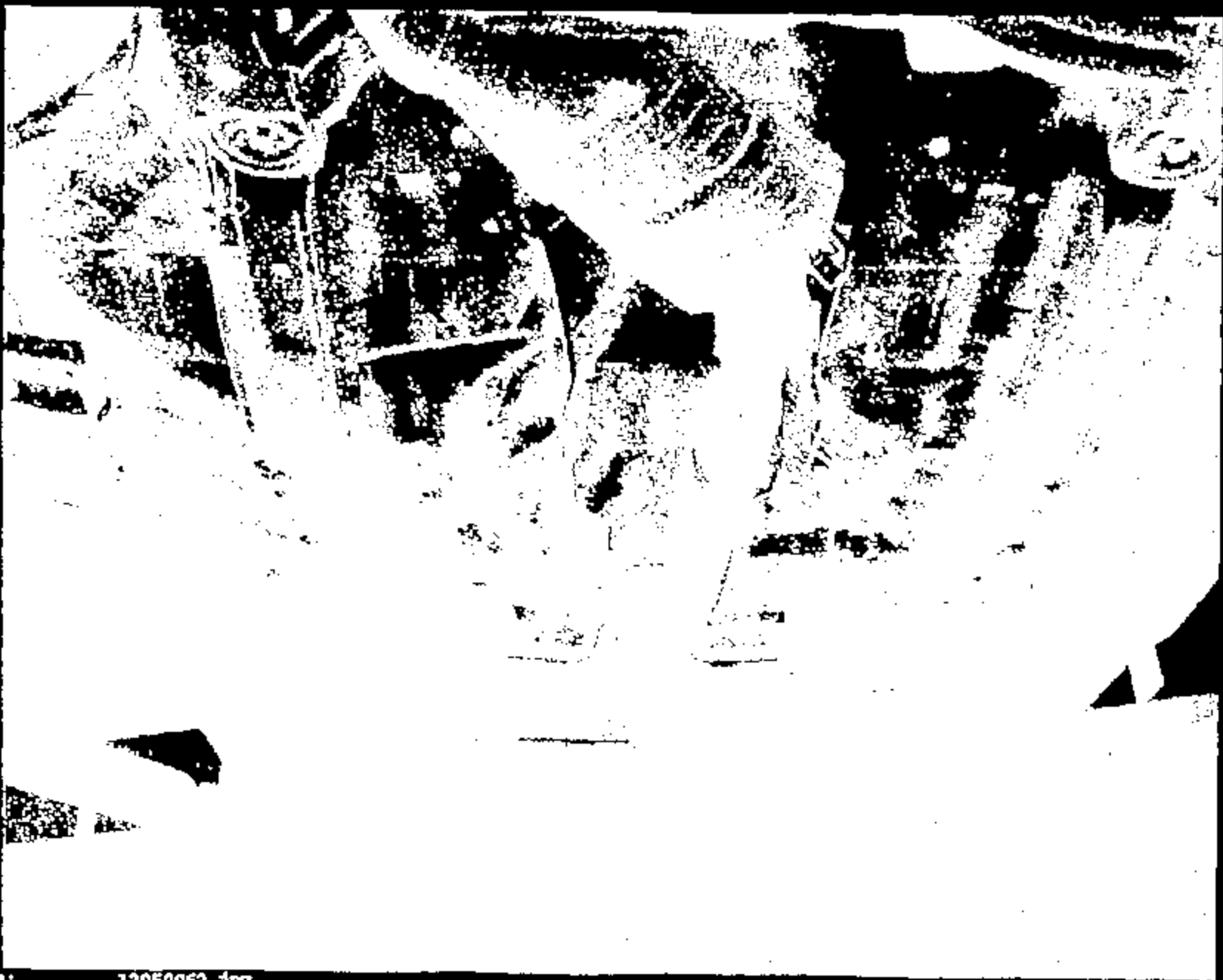
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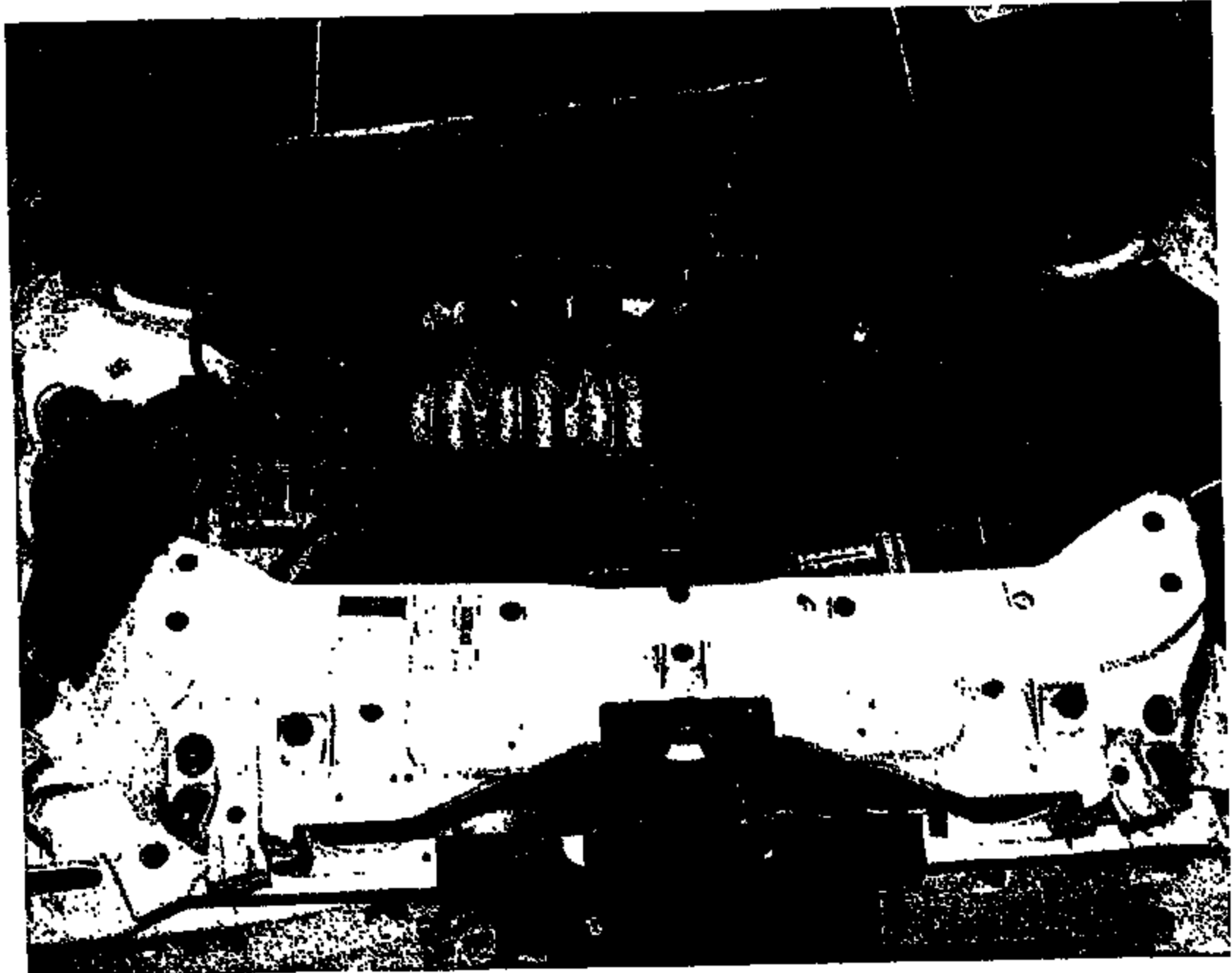
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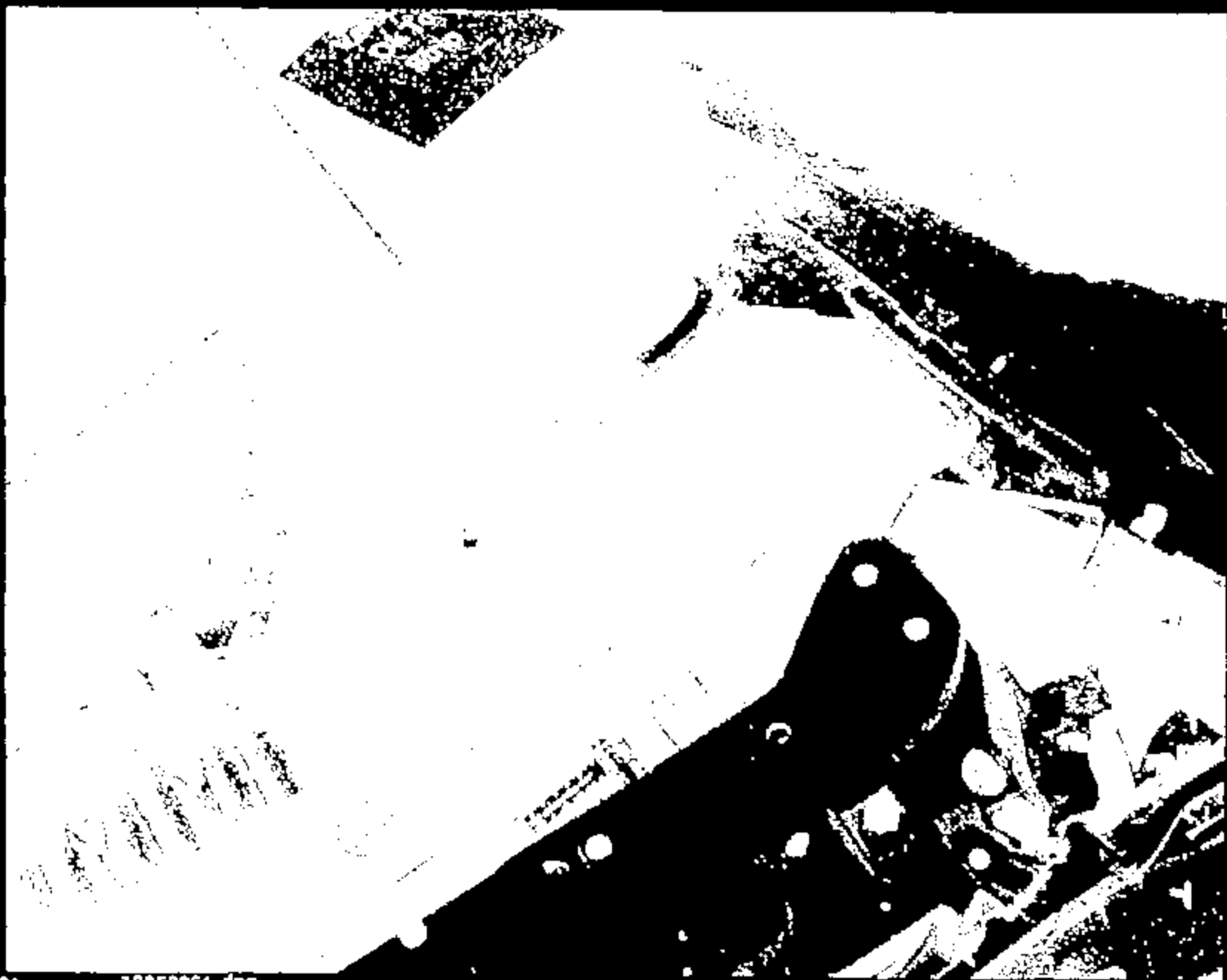
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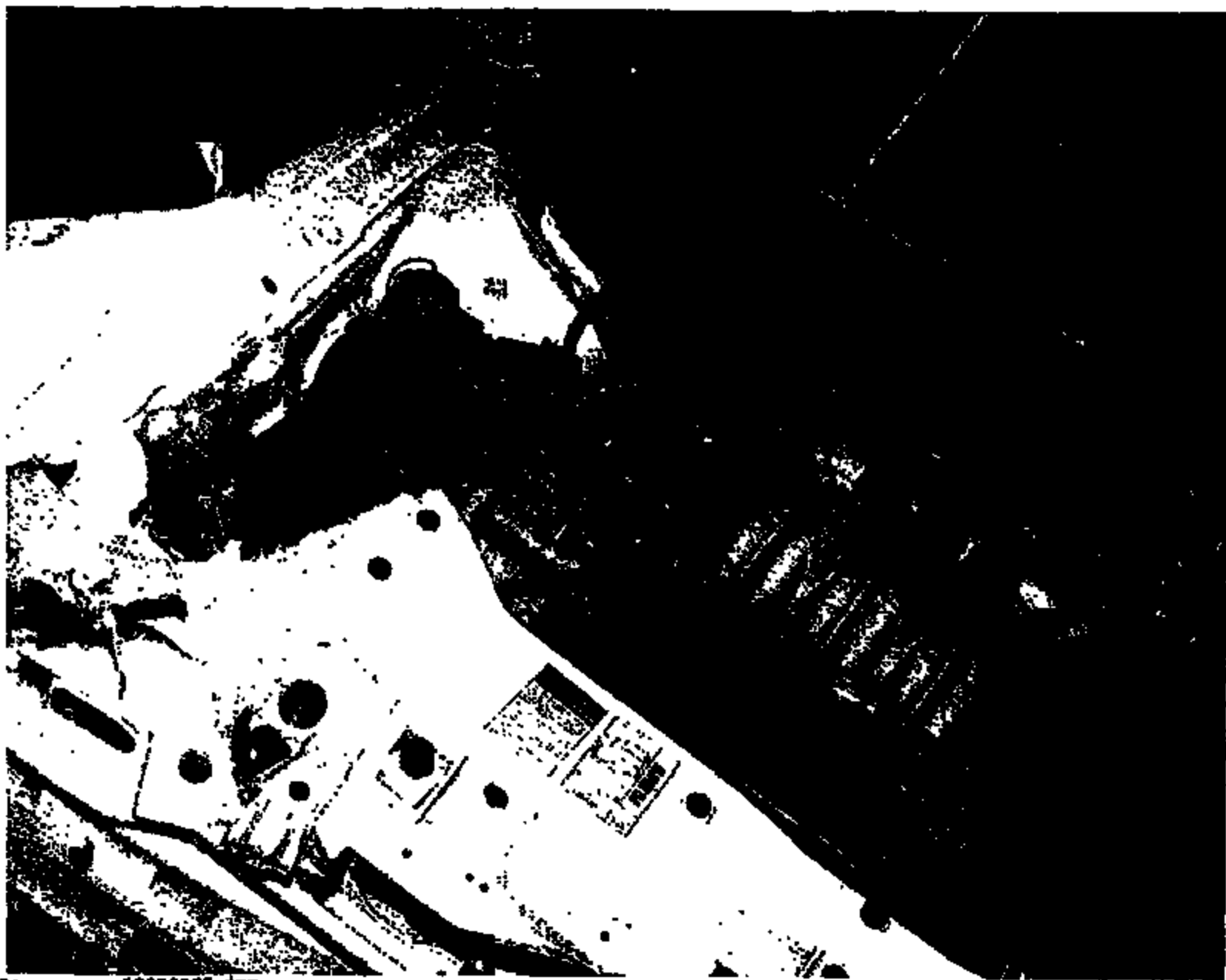


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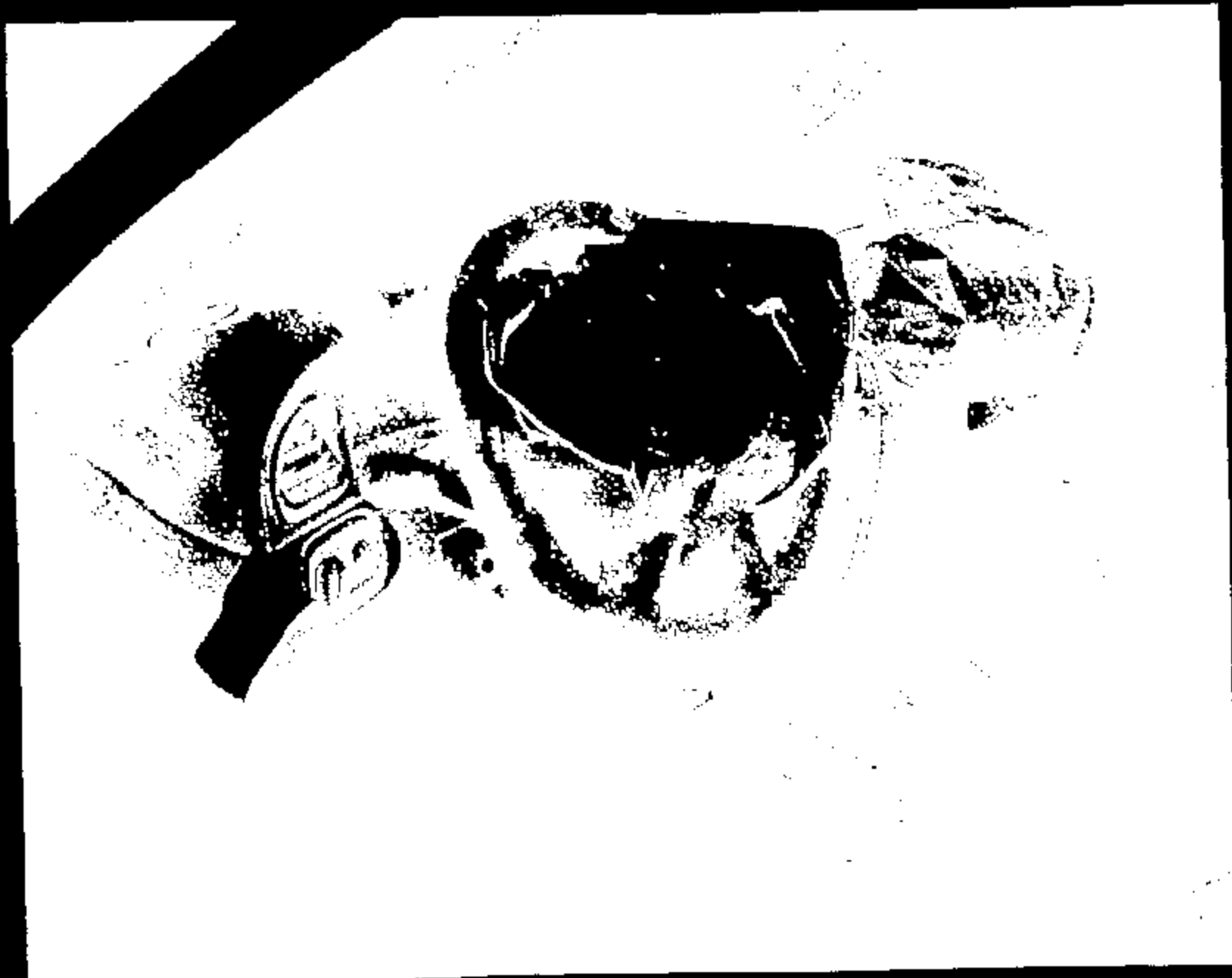


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Name :

12050066.jpg





Name :

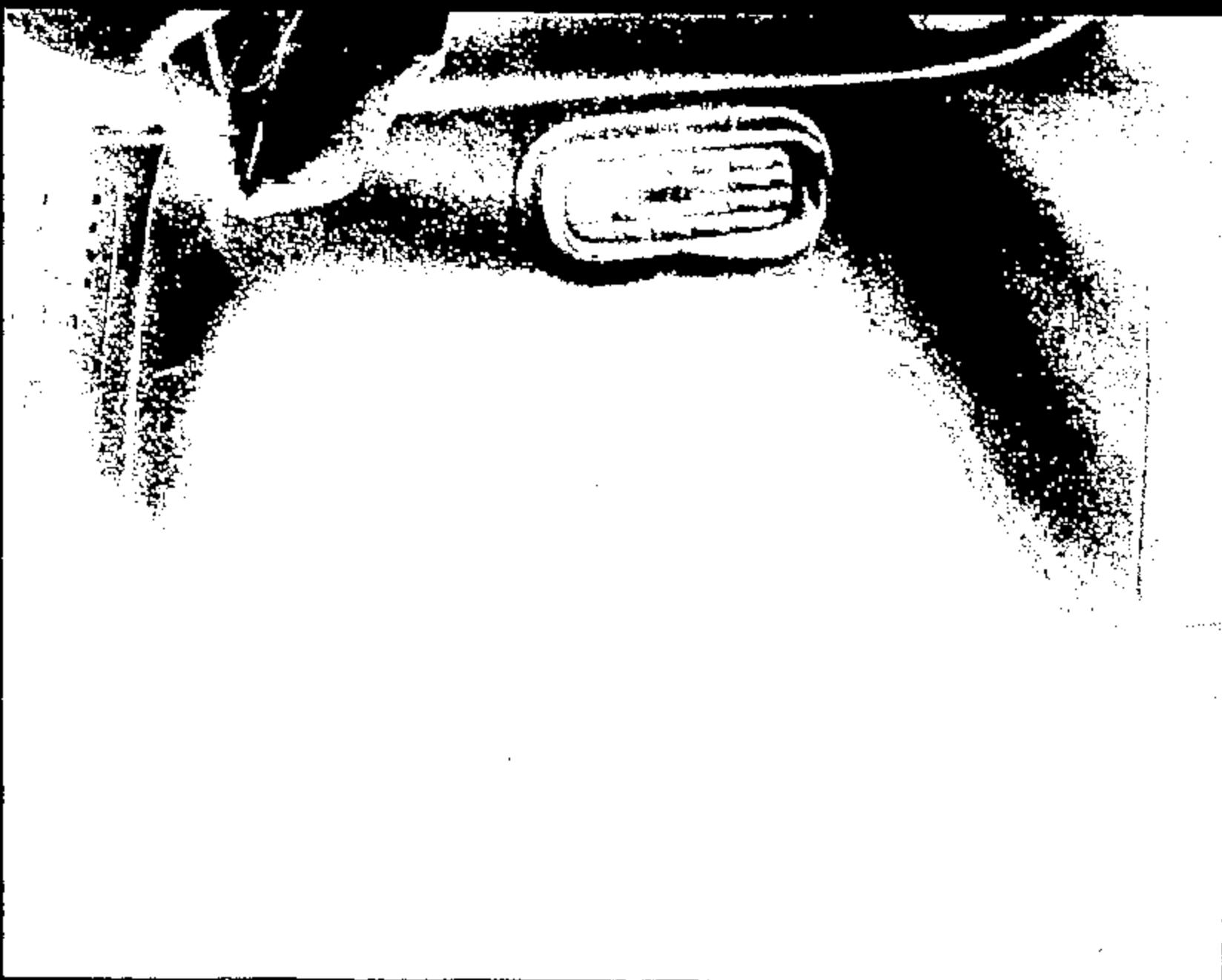
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CRTS 0012050



Name :

12050069.jpg



Name: 12050069.jpg



136661

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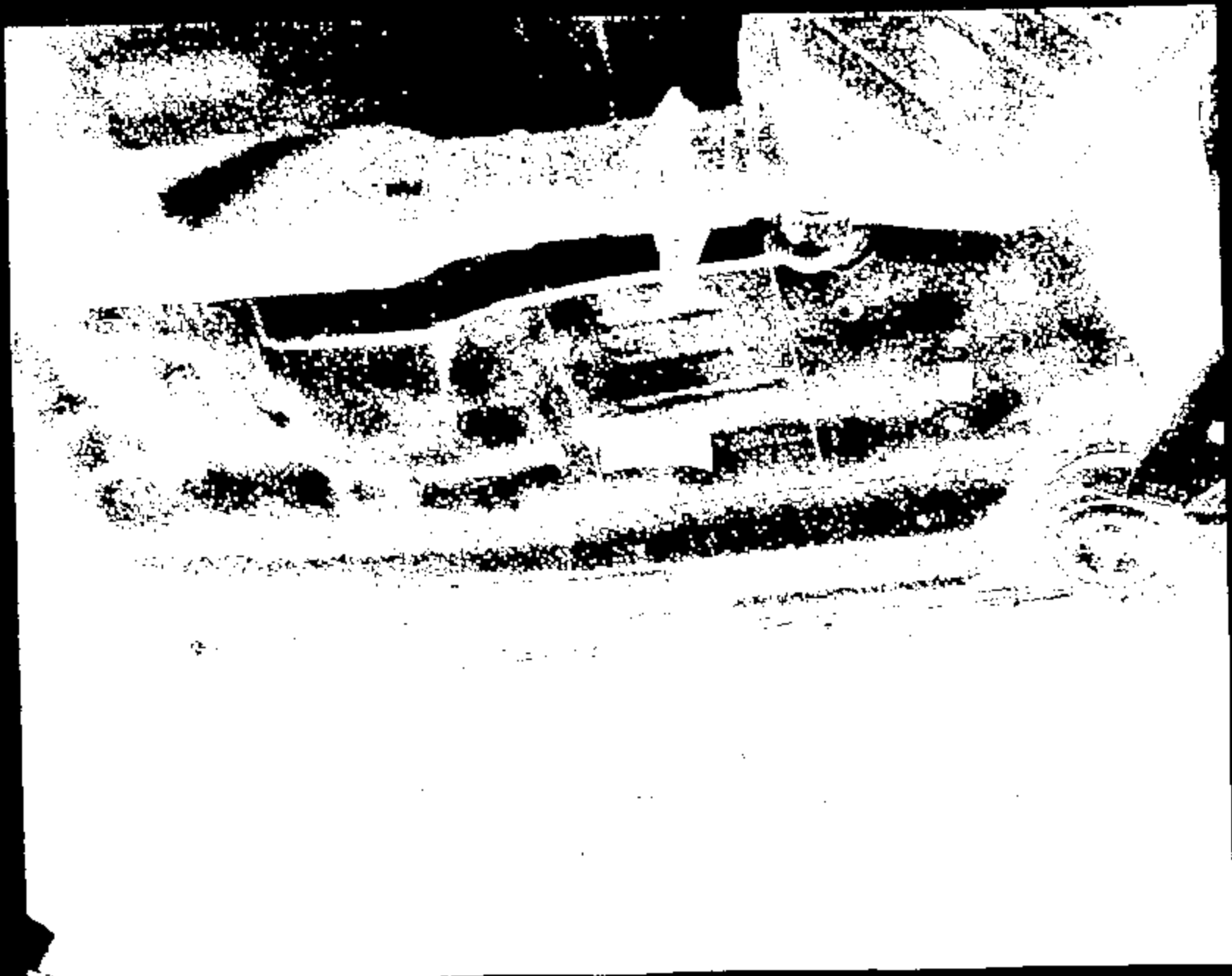
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CRTS 0012050



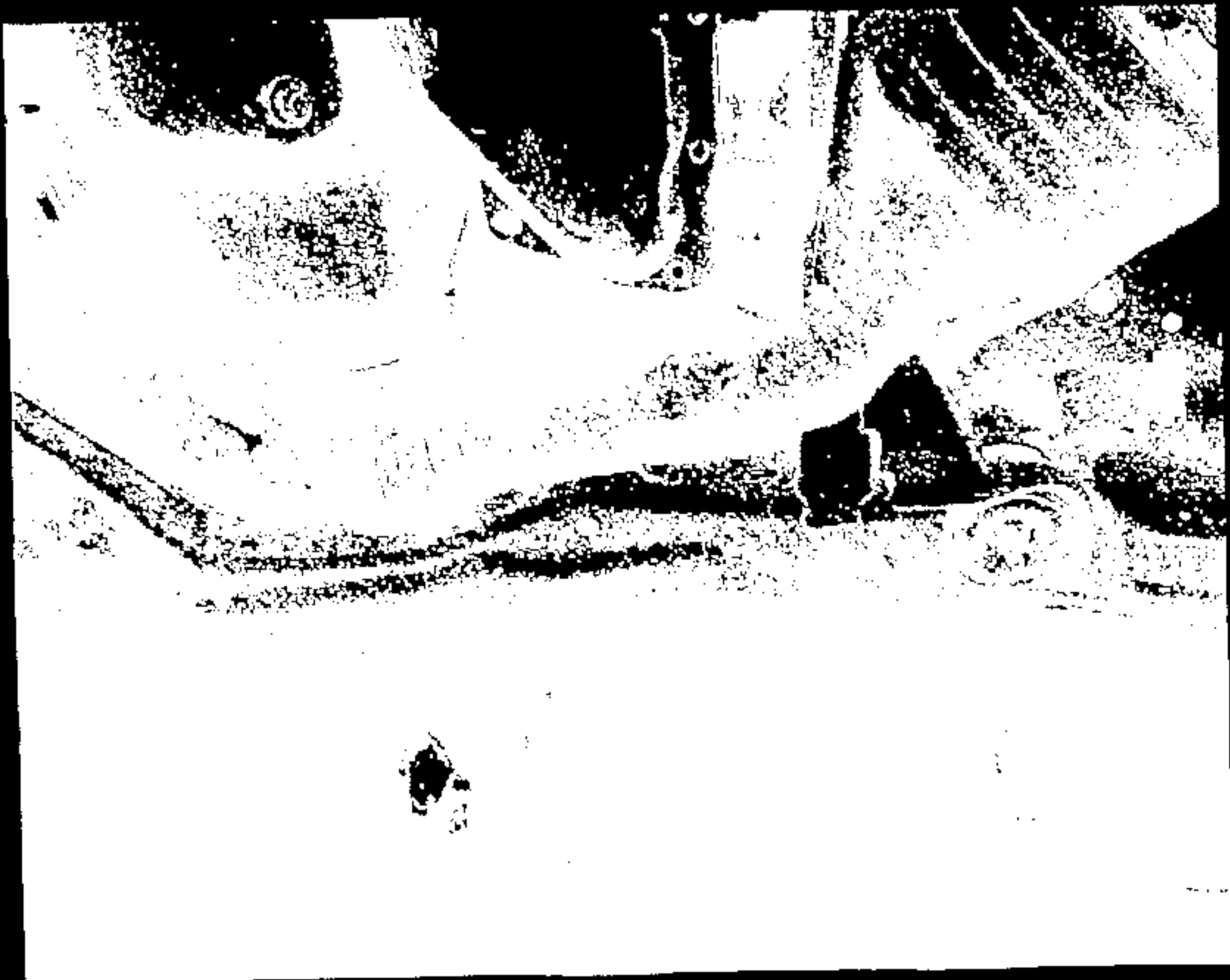
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12050073.jpg



File:

12050074.jpg

CRJTS 0012050





Name : 12050078.jpg

**TEST AUTHORIZATION** TEST AUTHORIZATION NUMBER: **TC1776**

TO: Safety Lab Department  OC: K. Wermann	REQUEST DATE: <b>8/12/00</b>	REQUESTED COMPLETION DATE: <b>8/28/00</b>
	REQUEST NUMBER: <b>n/a</b>	PROJECT NUMBER: <b>n/a</b>
	REQUESTING ACTIVITY: <b>Vehicle Crash Safety</b>	

TITLE OF TEST: <b>2000 D188 25mph Rigid Barrier Impact</b>	(speed)	(test description)	PARTS DUE DATE: <b>n/a</b>
TYPE OF TEST: <input checked="" type="checkbox"/> VEHICLE <input type="checkbox"/> LABORATORY	<input type="checkbox"/> BENCH <input type="checkbox"/> OTHER	VIN # or IDENTIFICATION: <b>n/a - 311W083 1FAFP821Y1A184788</b>	VEHICLE MODEL & YEAR: <b>2000 D188</b>
ENGINE NO. (DISPL. CARR): <b>3.0L/2V/V6</b>	TRANS / DRIVETRAIN:	AXLE RATIO: <b>n/a</b>	TEST CONDUCTED TO CERTIFY CONTROL ITEM COMPLIANCE WITH GOV. REGULATIONS: <b>Yes</b>
TYPE OF FUEL: <b>none</b>	CONVERTER: <b>n/a</b>	IGNITION TIMING: <b>n/a</b>	COMPLIANCE WITH GOV. REGULATIONS: <b>Yes</b>
CRANKCASE OIL AND CAPACITY (L): <b>n/a</b>	TIRE SIZE AND PLY RATING: <b>P 215/45R15</b>	TIRE PRESSURE (psi): <b>30</b>	REPORT CATEGORIES: <input checked="" type="checkbox"/> ENGINEERING <input checked="" type="checkbox"/> DATA <input checked="" type="checkbox"/> RAW DATA
VEHICLE TEST WEIGHT: <b>FRONT 2300 REAR 1800 TOTAL 3915</b>			DISPOSITION OF PARTS: <b>n/a</b>
			PROCUREMENT REQ? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, GIVE CODE
			MAIL REPORT TO: SLOG: MAIL DROP: ADDRESS:

1. OBJECT OF TEST	2. TEST PROCEDURE	3. ITEMS TO BE TESTED (NAME, NUMBER, QUANTITY)	<b>RECORD COPY</b> Schedule No. <u>17-7-12</u> Retain Until <u>2020</u>
1) Conduct	25mph Rigid Barrier Impact	2000 D188 # Production	
2) Velocity At Impact: Remote Fire Time: Positioning procedure:	25mph 18/10/85 ST-85	3) Vehicle Year: 2000 Vehicle Line: D188 Vehicle Level: Production	

Test Requester:	(name) <b>K. Wermann</b>	(phone) <b>24-57147</b>	(paper number) <b>KWAR</b>	Estimated test cost = <b>\$30,000.00</b>
Build Coordinator:	<b>A. Preston</b>	<b>24-55342</b>	<b>APRE</b>	
Additional Contacts:				

REQUESTING SECT. NO:	WORK ORDER/WORK TASK:	ISSUED/REQUESTED BY:	PHONE:	APPROVAL:	TEST TYPE:	FISC:	SIGN OFF DATE:
TEST1	P16	K. Wermann	24-57147	<i>[Signature]</i> K. Wermann	n/a	n/a	n/a

COMPLETE THE FOLLOWING TWO QUESTIONS AS INDICATED:  
(Check appropriate boxes)

1 - Reason for not replacing this test by CAE analysis: <input type="checkbox"/> No CAE Methodology or process available <input type="checkbox"/> No CAE Correlation <input type="checkbox"/> Insufficient confidence in CAE <input checked="" type="checkbox"/> To obtain basic data for CAE <input type="checkbox"/> Replacement or improvement of existing Test. <input type="checkbox"/> Testing is Costlier. <input type="checkbox"/> Mandatory or Regulatory Certification <input type="checkbox"/> Development test for FBS <input type="checkbox"/> Not applicable. <input type="checkbox"/> Other _____	2 - What is the expected Test Outcome <input type="checkbox"/> Results will meet DVP/PCR requirements. <input type="checkbox"/> System Component will not meet Test specification. <input checked="" type="checkbox"/> Unknown. <input type="checkbox"/> Above is Based on CAE? <input type="checkbox"/> Other: _____
--	--

Respective Originator, JAD/MLV  
 Please Use 10/16/00 Priority Number  
 Create Print Copies

Test Authorization  
 Page 1 of 12

*[Signature]*  
 10/14/2000

*[Signature]*  
 10-14-2000  
 Ver 8.00d Revised Sept 16, 1999  
 Address Change/Program/Out

## General Request Information

**Test Mode**

TAK: TC1775

**25mph  
Rigid Barrier Impact**

**Test Objectives: Cert (C) Verif (V) Dev (D) Audit (A)**

**REGULATORY:**

- FMVSS 204 - Steering Wheel Displacement
- FMVSS 208 - Frontal Occupant Protection
- FMVSS 212 - Wind Shield Retention
- FMVSS 214 - Side Impact Protection
- FMVSS 216 - Windshield Zone Intrusion
- Film Analysis
- Template
- FMVSS 301 - Fuel System Integrity
- Rollover
- Pressure Check
- FMVSS 309 - NGV Fuel System Integrity
- ECE 12 (74/297/EEC) - Protection of the Driver Against Steering Mechanism
- ECE 32 Rear Impact - Structural Performance
- ECE 33 Frontal Impact - Structural Performance
- ECE 34 Fuel System Integrity
- ECE 34 Step II Frontal Offset - Occupant Performance
- ECE 36 Step II 300mm Barrier Side Impact - Occupant Performance
- 95/79/EC - Frontal Offset
- 95/27/EC - Side Impact
- EURO-NCAP

**FORD AUTOMOTIVE OPERATIONS SAFETY DESIGN GUIDELINES:**

- Front Impact FAO Safety Design Guidelines
- Offset Frontal FAO Safety Design Guidelines
- Side Impact Protection FAO Safety Design Guidelines
- Rear Impact Fuel System Performance FAO Safety Design Guidelines

**OTHER:**

- Sensor Development
- Other, Specify: Evaluate NHTBA proposed procedure

**Primary Test Vehicle Information**

Use (Target/Built):	Target
Model Year:	2000
Vehicle Program:	D166
Vehicle Name:	Tezura/Sable
Body / Cab Style:	SEDAN
Build Number:	n/a
Tag Number:	311W559
VIN Number:	1PAPP6221YA134738
Fuel System Rated Capacity(Gal):	14
Prototype Level:	Production
Drive Side:	LH

# Special Prep/Buld Instructions Primary Vehicle

TA#: TC1775

## Special Buld Instructions

- Remove Side View Mirrors
- Remove Headrests
- Remove Hood
- Remove Arm rest
- Remove Bottom of Bumper Cover
- Cut Off Brakes & Clutch Pedal
- Color Contrast Under Hood Components

### Other, Specify:

- Update Instrument Panel (should arrive at Carron during week of March 1)
- Remove TK yoke from panel in vehicle and install with new IP (new IP does not have yoke)
- Update Driver and Passenger airbags (3/18 promise date)
- Trim PAB bracket and drill hole in substrate to install PAB
- 
- 

## Pyro Restraints Usage

- Left Front Air Bag (Dual Stage)
- Right Front Air Bag (Dual Stage)
- Left Side Air Bag
- Right Side Air Bag
- Left Pyro Retractor
- Left Pyro Buckle
- Right Pyro Retractor
- Right Pyro Buckle

### Other, Specify:

- 13/18ms Remote Fire Time:  
(No fire time listed if sensor fired OR if no pyro restraints are used)
- Remote back-up Fire Time:

## Special Pre-Test Preparation

### Other, Specify:

**Occupant / ATD Request  
Primary Vehicle**

TAB: TC1775

	<i>Occupant 1</i>	<i>Occupant 2</i>
<b>Type</b>	<u>50% Hybrid 3</u>	<u>50% Hybrid 3</u>
<b>Instrumentation Level*</b>	<u></u>	<u></u>
<b>In-Vehicle Location</b>	<u>LF</u>	<u>RF</u>
<b>Verify:</b> <b>Seat Position Long</b>	<u>Mechanical Mid</u>	<u>Mechanical Mid</u>
<b>Seat Position Vert</b>	<u>FULL DOWN</u>	<u>FULL DOWN</u>
<b>Seat Back Angle</b>	<u>27.8 degrees</u>	<u>27.8 degrees</u>
<b>Positioning Procedure</b>	<u>ST-25</u>	<u>ST-25</u>
<b>Use Foot Rest</b>	<u>Yes</u>	<u>N/A</u>
<b>Take Seat Track Video</b>	<u>Yes</u>	<u>Yes</u>
<b>Special Positioning Instructions</b>		
<b>Dummy Adjustment</b> (arm angle)	<u>MW 10-24-00 NO</u>	<u>MW 10-24-00 NO</u>
<b>Occupant Belted</b>	<u>NO</u>	<u>NO</u>

\*See instrumentation request for detailed instrumentation information.

# Test Conditions - Final Prep

TAR: TC1775

## Final Prep Contacts

ONE of these MUST be present during weigh-up & final prep

	Test Engineer	Request Engineer	Build Coordinator
Name:	_____	<u>K. Wermann</u>	<u>A. Preston</u>
Phone:	_____	<u>24-87147</u>	<u>24-86342</u>
Pager:	_____	<u>KWAR</u>	<u>APRE</u>

## Test Weight

Minimum Option Weight	GVWR: _____
<input checked="" type="checkbox"/> 33% Option Weight	Wheelbase: _____
Maximum Option Weight	

## Tire Pressure

Front: 30 psi                      Rear: 30 psi

## Fuel System

Fuel Tank & System to Contain: Empty or Water for ballast

<u>13.5 gallons</u>	=	<u>85 %</u>	x	<u>14.0 gallons</u>
<u>Fill Level</u>	=	<u>%</u>	x	<u>Capacity</u>

## Weight Targets

If required weight distribution is UNACHIEVABLE, please note allowable variances.

Curb Weight	Requested Test Weight	Acceptable Test Weight Variance		Actual Test Weight
		High (+)	Low (-)	
Front: <u>2,144 lbs</u>	<u>2,300 lbs</u>	Front: <u>13 lbs</u>	<u>0 lbs</u>	Front: <u>2311</u>
Rear: <u>1,198 lbs</u>	<u>1,808 lbs</u>	Rear: <u>13 lbs</u>	<u>0 lbs</u>	Rear: <u>1614</u>
Total: <u>3,342 lbs</u>	<u>3,916 lbs</u>	Total: <u>26 lbs</u>	<u>0 lbs</u>	Total: <u>3925</u>

Rated Luggage Load: 200 lbs

## Simulate/Verify at Weigh-Up

Dummy Weight

On Board Camera Count

## Weight Addition (Restrictions)

Do NOT place any weight in the following locations:

<input type="checkbox"/> Air Cleaner	<input type="checkbox"/> Engine	<input type="checkbox"/> Doors
<input type="checkbox"/> Battery	<input type="checkbox"/> Fan Box/Blroud	<input type="checkbox"/> Foot Wells - Front
<input type="checkbox"/> Bottle - Coolant	<input type="checkbox"/> Headlamp Overage	<input type="checkbox"/> Foot Wells - Rear
<input type="checkbox"/> Bottle - Washer	<input type="checkbox"/> Radiator	<input type="checkbox"/> Quarter Panels
		<input type="checkbox"/> Trunk Floor

Other: \_\_\_\_\_

## Ride Heights

Measure @ Test Weight

Measure

Front: \_\_\_\_\_

Front: \_\_\_\_\_

Rear: \_\_\_\_\_

To: \_\_\_\_\_

## Additional Remarks

         DO NOT fill tank with standard until weigh-up

## Dimensional Analysis Request Primary Vehicle

TA#: TC1775

**Frontal Impacts**

	74		
	81		
	106	Control Points (CAR)	Exterior
	107		
X	128	Collapse Distance Points	Exterior
	129	Frame/SE. COL/ Ring. for Graphs (CAR)	Exterior
	130	Frame Standard Bottom (CAR)	Exterior
X	132	Unlited Standard Bottom (CAR)	Exterior
	134	Drive Shaft Collases	Exterior
	135	Standard Body Relative	Exterior/Interior
	144	Windshield (CAR)+ASTIC	Exterior
	140	SH & Piler	Exterior
	142	Shot-Gun	Exterior
	144	Header	Interior
X	150	Steering Wheel Deformation/ Pathery	Interior
X	153	Steering Column Mounts	Interior
	184	Steering Column Targets	Interior
	155		
X	166	Seat Track to Floor Mounts	Exterior
	168	Seat to Track Mounts	Exterior
	160	Coast Rotation	Exterior
	162	Floorpan Points	Exterior
	164	Knee Bumper	Interior
	166	Seat Belt Mounts	Interior
	168	Diagonal Strut	Interior
	170	Turnal Hinge Piler	Exterior
	172	Brake Bracket (ONLY if you can reach it)	Interior
	174	Instrument Panel Mounts	Exterior
	176	T-H-Y Targets	Exterior/Interior
	177	Top Non-Sided & Body Sided	Exterior/Interior
	228	Rear Door Aperture Reduction	
	300		
	302		
	346		
	358		
	364		
	378		
	406	Plot of Spotlign Profiles	
	509	Decoupling Column Collases	Exterior
	517	P.R. Steering Column Collases	Exterior
	506		
	508	TB Steering Column Collases & Intermediate Strut	Interior
X	640	Dash Profile @ Driver Centerline (POST CRASH ONLY)	Interior
X	641	Dash Profile @ Vehicle Centerline (POST CRASH ONLY)	Interior
X	642	Dash Profile @ Passenger Centerline (POST CRASH ONLY)	Interior
	647	Footrest Reduction	Interior
X	650	1) All pre and post crash seats 2) All pre and post crash body mounts	

<<< <<< END OF SHEET >>> >>>

# Film Analysis & Photographic Services Request

## Front Impact Film Analysis

TA#: TC1775

- Head WRT Vehicle
- Shoulder WRT Vehicle
- Rocker WRT Ground

Other, Specify:

## Still Photography

- Copies of Still Photo Proof Sheets Required
- Copies of Still Photos (4X5) Required
- Pre Test Documentation Photographs
- Post Test Documentation Photographs

## High Speed Photographic Requirements

- 2 Copies of High Speed Film Required
- 1 Copies of High Speed Film Required in VHS Format
- Digitization of Driver/ Passenger Kinematics Format

## High Speed Cameras for Front Impact

### On-Board Vehicle

- Onboard - LEFT Occupant Over Shoulder
- Onboard - RIGHT Occupant Over Shoulder
- Onboard - Driver 'D' Ring
- Onboard - Driver Retractor (Lower)
- Onboard - Driver Lower Torso to I/P Contact, From Rear, Cross Car
- Onboard - Passenger Lower Torso to I/P Contact, From Rear, Cross Car
- Onboard - Passenger 'D' Ring
- Onboard - Passenger Retractor (Lower)
- Onboard - Driver Door (Left Knee to Solestar)
- Onboard - Passenger Door (Knee to I/P)
- Onboard - Photo Sonic (Intermediate Shaft) - From Floor
- Onboard - Photo Sonic (Intermediate Shaft) - Side View From Tunnel
- Onboard - Fiber Optics (Intermediate Shaft) - From Floor
- Onboard - Fiber Optics (Intermediate Shaft) - Side View From Tunnel

## Floor Coverage

Respectful Originator: JERRY  
Printed: 10/18/99 Facility Name:  
Dunlop Print, Digital

Film and Photo Equipment  
Page 7 of 10

TA#: TC1775

12/7/98  
User Edited: Inhibit Date: 12, 1999  
Author: Cheryl/Fugate/Dee

CRTS 0012050



Left Occupant Over Shoulder, On tripod, from rear, across car  
 Right Occupant Over Shoulder, On tripod, from rear, across car  
 Left Occupant Over Shoulder, In lights  
 Right Occupant Over Shoulder, In lights  
 Overall Left  
 Barrier to B-Pillar Left  
 Dummy Kinematics & Velocity Left  
 Overall Right  
 Barrier to B-Pillar Right  
 Dummy Kinematics & Velocity Right  
 Top of Barrier - Overall View of Windshield  
 Top of Barrier - Driver  
 Top of Barrier - Passenger  
 Left Front Rail Extension Bumper Close-up  
 Right Front Rail Extension Bumper Close-up

**Overhead Coverage**

Overhead - Overall  
 Overhead - A-Pillar Forward  
 Steering Column Displacement  
 Scale  
 Reaction

**Pit Coverage**

Pit - Overall  
 Pit - A-Pillar Forward  
 Pit - L/R Frame Horns (Crisscross)  
 Pit - L/R Front Rails #1 X/M Rearward  
 Pit - Steering Gear Close-up  
 Pit - Fuel Tank  
 Pieces of Plex-Glass to be removed from pit.

**All Other High Speed Photography**

# Instrumentation and Data Processing Request

TAF: TC1775

## Primary Vehicle Structural Instrumentation - Frontal Impact

ACCELEROMETERS:	Long	Vert	Lat
<input type="checkbox"/> Engine/Trans Upper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Engine/Trans Lower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Left Rocker at A-Pillar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Right Rocker at A-Pillar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Left Rocker at B-Pillar	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Right Rocker at B-Pillar	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Left Rocker at C-Pillar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Right Rocker at C-Pillar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Left Frame at A-Pillar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Right Frame at A-Pillar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Left Frame at B-Pillar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Right Frame at B-Pillar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Left A-Pillar Inside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Right A-Pillar Inside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Centerline Tunnel @ Dash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Centerline Tunnel Middle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Centerline Tunnel @ Seat Long Centerline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Left Floor Pan Under Seat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Left Door Inside Top	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Left Shock Tower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Right Floor Pan Under Seat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Right Door Inside Top	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Right Shock Tower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Rad Support Top - Center	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> #1 Crossmember Bottom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> #2 Crossmember Bottom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Left Front Rail Forward of Sledrunners.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Left Front Rail Forward of Shock Tower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Right Front Rail Forward of Sledrunners.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Right Front Rail Forward of Shock Tower	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Directly Below D.A. Point # 69	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Directly Below D.A. Point # 84	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> Next to Fuel Inertia Switch	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/> Top of Battery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Near ACS Bypass Switch	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OTHER STRUCTURAL ACCELS:	Long	Vert	Lat
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



**ACCELS:**

Head C.G.  
 Chest  
 Pelvis

Long  Vert  Lat  
 Long  Vert  Lat  
 Long  Vert  Lat

**LOAD CELLS:**

Neck Upper Load  
 Neck Upper Moment  
 Neck Lower Load  
 Neck Lower Moment  
 Thoracic Load  
 Thoracic Moment  
 Lower Lumbar Load  
 Lower Lumbar Moment  
 L/Femur Load  
 L/Femur Moment  
 R/Femur Load  
 R/Femur Moment  
 L/Up/Tibia Load  
 L/Up/Tibia Moment  
 R/Up/Tibia Load  
 R/Up/Tibia Moment  
 L/Low/Tibia Load  
 L/Low/Tibia Moment  
 R/Low/Tibia Load  
 R/Low/Tibia Moment

Fx  Fy  Fz  
 Mx  My  Mz  
 Fx  Fy  Fz  
 Mx  My  Mz  
 Fx  Fy  Fz  
 Mx  My  Mz  
 Fx  Fy  Fz  
 Mx  My  Mz  
 Mx  My  Fz  
 Mx  My  Fz  
 Mx  My  Mz  
 Fx  Fy  Fz  
 Mx  My  Mz  
 Fx  Fy  Fz  
 Mx  My  Mz  
 Fx  Fy  Fz  
 Mx  My  Mz

**POTENTIOMETERS:**

Chest Deflection  
 Left Knee Slider  Ball Bearing  Std  Disp  
 Right Knee Slider  Ball Bearing  Std  Disp

**OTHER INTERNAL DUMMY INSTRUMENTATION:**

L/R Femur Accels  Long  Vert  Lat  
 L/R Ankle soft bumper to foot stem

**Dummy Instrumentation - External**

**CONTACT SWITCHES:**

L / Knee Contact  
 R / Knee Contact  
 Header

**STRING POTS:**

Pelvis  
 L / Knee  
 R / Knee

**OTHER EXTERNAL DUMMY INSTRUMENTATION:**

Please color contrast Driver left and right shoes

**Dummy Instrumentation - Internal**

50HS                      R/F

**ACCELS:**

<input checked="" type="checkbox"/> Head C.G.	<input checked="" type="checkbox"/> Long	<input checked="" type="checkbox"/> Vert	<input checked="" type="checkbox"/> Lat
<input checked="" type="checkbox"/> Chest	<input checked="" type="checkbox"/> Long	<input checked="" type="checkbox"/> Vert	<input checked="" type="checkbox"/> Lat
<input checked="" type="checkbox"/> Pelvis	<input checked="" type="checkbox"/> Long	<input checked="" type="checkbox"/> Vert	<input checked="" type="checkbox"/> Lat

**LOAD CELLS:**

<input checked="" type="checkbox"/> Neck Upper Load	<input checked="" type="checkbox"/> Fx	<input type="checkbox"/> Fy	<input checked="" type="checkbox"/> Fz
<input checked="" type="checkbox"/> Neck Upper Moment	<input type="checkbox"/> Mx	<input checked="" type="checkbox"/> My	<input type="checkbox"/> Mz
<input type="checkbox"/> Neck Lower Load	<input type="checkbox"/> Fx	<input type="checkbox"/> Fy	<input type="checkbox"/> Fz
<input type="checkbox"/> Neck Lower Moment	<input type="checkbox"/> Mx	<input type="checkbox"/> My	<input type="checkbox"/> Mz
<input type="checkbox"/> Thoracic Load	<input type="checkbox"/> Fx	<input type="checkbox"/> Fy	<input type="checkbox"/> Fz
<input type="checkbox"/> Thoracic Moment	<input type="checkbox"/> Mx	<input type="checkbox"/> My	<input type="checkbox"/> Mz
<input checked="" type="checkbox"/> Lower Lumbar Load	<input checked="" type="checkbox"/> Fx	<input type="checkbox"/> Fy	<input checked="" type="checkbox"/> Fz
<input checked="" type="checkbox"/> Lower Lumbar Moment	<input type="checkbox"/> Mx	<input checked="" type="checkbox"/> My	<input type="checkbox"/> Mz
<input checked="" type="checkbox"/> L/Femur Load	<input type="checkbox"/> Mx	<input type="checkbox"/> My	<input checked="" type="checkbox"/> Fz
<input type="checkbox"/> L/Femur Moment	<input type="checkbox"/> Mx	<input type="checkbox"/> My	<input type="checkbox"/> Mz
<input checked="" type="checkbox"/> R/Femur Load	<input type="checkbox"/> Mx	<input type="checkbox"/> My	<input checked="" type="checkbox"/> Fz
<input type="checkbox"/> R/Femur Moment	<input type="checkbox"/> Mx	<input type="checkbox"/> My	<input type="checkbox"/> Mz
<input type="checkbox"/> L/Up/Tibia Load	<input type="checkbox"/> Fx	<input type="checkbox"/> Fy	<input type="checkbox"/> Fz
<input type="checkbox"/> L/Up/Tibia Moment	<input type="checkbox"/> Mx	<input type="checkbox"/> My	<input type="checkbox"/> Mz
<input type="checkbox"/> R/Up/Tibia Load	<input type="checkbox"/> Fx	<input type="checkbox"/> Fy	<input type="checkbox"/> Fz
<input type="checkbox"/> R/Up/Tibia Moment	<input type="checkbox"/> Mx	<input type="checkbox"/> My	<input type="checkbox"/> Mz
<input type="checkbox"/> L/Low/Tibia Load	<input type="checkbox"/> Fx	<input type="checkbox"/> Fy	<input type="checkbox"/> Fz
<input type="checkbox"/> L/Low/Tibia Moment	<input type="checkbox"/> Mx	<input type="checkbox"/> My	<input type="checkbox"/> Mz
<input type="checkbox"/> R/Low/Tibia Load	<input type="checkbox"/> Fx	<input type="checkbox"/> Fy	<input type="checkbox"/> Fz
<input type="checkbox"/> R/Low/Tibia Moment	<input type="checkbox"/> Mx	<input type="checkbox"/> My	<input type="checkbox"/> Mz

**POTENTIOMETERS:**

<input checked="" type="checkbox"/> Chest Deflection	<input type="checkbox"/> Ball Bearing	<input checked="" type="checkbox"/> Std	<input type="checkbox"/> Disp
<input checked="" type="checkbox"/> Left Knee Slider	<input type="checkbox"/> Ball Bearing	<input checked="" type="checkbox"/> Std	<input type="checkbox"/> Disp
<input checked="" type="checkbox"/> Right Knee Slider	<input type="checkbox"/> Ball Bearing	<input checked="" type="checkbox"/> Std	<input type="checkbox"/> Disp

**OTHER INTERNAL DUMMY INSTRUMENTATION:**

<input type="checkbox"/> L/R Femur Accels	<input type="checkbox"/> Long	<input type="checkbox"/> Vert	<input type="checkbox"/> Lat
<input type="checkbox"/> L/R Ankle soft bumper to foot stern			

**Dummy Instrumentation - External**

**CONTACT SWITCHES:**

<input checked="" type="checkbox"/> L / Knee Contact
<input checked="" type="checkbox"/> R / Knee Contact
<input type="checkbox"/> Header

**STRING POTS:**

<input type="checkbox"/> Pelvis
<input type="checkbox"/> L / Knee
<input type="checkbox"/> R / Knee

**OTHER EXTERNAL DUMMY INSTRUMENTATION:**

<input type="checkbox"/> Please color contrast Driver left and right shoes
<input type="checkbox"/>

# Barrier Load Cell Request

TAB: TC-1775

0000	0000	0400		0800		0800		1000		1200		1400
0000	0000	0400	0400	0800	0800	0800	0800	1000	1000	1200	1200	1400
0000	0000	0400	0800	0800	0800	0800	0800	1000	1000	1200	1200	1400
0000	0000	0400	0800	0800	0800	0800	0800	1000	1000	1200		1400

0000	0000	0400		0800		0800		1000		1200		1400
0000	0000	0400	0400	0800	0800	0800	0800	1000	1000	1200	1200	1400
0000	0000	0400	0800	0800	0800	0800	0800	1000	1000	1200	1200	1400
0000	0000	0400	0800	0800	0800	0800	0800	1000	1000	1200		1400

0000	0000	0400		0800		0800		1000		1200		1400
0000	0000	0400	0400	0800	0800	0800	0800	1000	1000	1200	1200	1400
0000	0000	0400	0800	0800	0800	0800	0800	1000	1000	1200	1200	1400
0000	0000	0400	0800	0800	0800	0800	0800	1000	1000	1200		1400

## 90 Degree Full Frontal Impact

- \_\_\_\_\_ All Barrier Load Cells (see diagram left)
- \_\_\_\_\_ X Channels Only
- \_\_\_\_\_ X,Y Channels Only
- \_\_\_\_\_ X, Z Channels Only
- \_\_\_\_\_ All X,Y,Z Channels

## Partial Barrier Load Cells (see bolded diagram left)

- \_\_\_\_\_ X Channels Only
- \_\_\_\_\_ X,Y Channels Only
- \_\_\_\_\_ X, Z Channels Only
- \_\_\_\_\_ All X,Y,Z Channels

## 30 Degree Left Full Frontal Impact

- \_\_\_\_\_ All Barrier Load Cells (see diagram left)
- X \_\_\_\_\_ X Channels Only
- \_\_\_\_\_ X,Y Channels Only
- \_\_\_\_\_ X, Z Channels Only
- \_\_\_\_\_ All X,Y,Z Channels

## Partial Barrier Load Cells (see bolded diagram left)

- \_\_\_\_\_ X Channels Only
- \_\_\_\_\_ X,Y Channels Only
- \_\_\_\_\_ X, Z Channels Only
- \_\_\_\_\_ All X,Y,Z Channels

## 30 Degree Right Full Frontal Impact

- \_\_\_\_\_ All Barrier Load Cells (see diagram left)
- \_\_\_\_\_ X Channels Only
- \_\_\_\_\_ X,Y Channels Only
- \_\_\_\_\_ X, Z Channels Only
- \_\_\_\_\_ All X,Y,Z Channels

## Partial Barrier Load Cells (see bolded diagram left)

- \_\_\_\_\_ X Channels Only
- \_\_\_\_\_ X,Y Channels Only
- \_\_\_\_\_ X, Z Channels Only
- \_\_\_\_\_ All X,Y,Z Channels

CRIS 0012050

# List of Test Contacts

TAM: TC1775

	Last name	Phone	Pager	Profs
Requestor	K. Warman	24-87147	RWAR	JMCNAY
Approving supervisor				
Build coordinator	A. Preston	24-86342	APRE	APREST01
Test engineer				
Sensor Engineer				
Other	M. Wroten	33-71738	MWRO	MWROTEN1

	Last name	Phone	Pager	Profs
Seats				
Instrument panel	M. Karanen			
Restraints	P. Bartlett			
Air bag (driver)	R. Ruzhnikov			
Air bag (passenger)	R. Ruzhnikov			
Steering column				

CRTS 0012050







10/23/00

**VEHICLE SAFETY AND CAE TECHNOLOGY PACKAGE LABORATORY IN VEHICLE QUALITY REPORT**

											2919.7	
											2940	
											544	
											544.5	
											229.2	
											229.6	
											2806	
											2824	
											558.4	
											559.3	
											2736	
											850	
											2750	
											2729.2	
											845.6	
											350	
											-0.8	
											-4.4	
											STEERING COLUMN ANGLE:	
											21.3°	
311W953	LH MANUAL BUCKET	2967	2968	1.0	666	667.7	1.7	22.5°	21.4°	-1.1°	27.8°	27.2°
311W953	RH MANUAL BUCKET	2967	2967	0.5	666	671.6	5.6	22.5°	22.8°	-0.5°	27.8°	27.9°

LH ACTUAL H-POINT W.R.T. TARGET "X"  
 LH ACTUAL H-POINT W.R.T. TARGET "Z"  
 RH ACTUAL H-POINT W.R.T. TARGET "X"  
 RH ACTUAL H-POINT W.R.T. TARGET "Z"

218	MM
317.7	MM
217.3	MM
321.6	MM

8.6	INCHES
12.5	INCHES
8.6	INCHES
12.7	INCHES

CRTS 0012050

DUMMY POSITIONING MEASUREMENTS

Test Order No.

TC1775

Crash No.

12050

Target/Bullet

BULLET

Dummy Type

5013 - SDH 3

Foot Rest

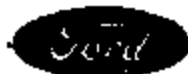
Yes/No

D 186

MEASUREMENT DESCRIPTIONS WRT FRONT ROCKER TARGET		DRIVER		PASSENGER	
		RANGE	Actual	RANGE	Actual
Head (Inches)	Long		15.4		14.5
	Vert		38.6		37.7
	Lat		14.5		15.7
Shoulder (Inches)	Long		/		/
	Vert		/		/
	Lat		/		/
H-Point (Inches)	Long	8.6	8.8	8.6	8.7
	Vert	12.5	12.5	12.7	12.8
	Lat		10.9		11.1
Outboard Knee Bolt (Inches)	Long		-9.7		-7.4
	Vert		16.5		15.7
	Lat		11.2		12.6

MEASUREMENT DESCRIPTIONS		DRIVER		PASSENGER	
		RANGE	Actual	RANGE	Actual
Leg to Instrument Panel - Left	(Inches)		4.0		4.3
Leg to Instrument Panel - Right	(Inches)		3.9		3.9
Rockers Target to Ground - Front	(Inches)		7.0		7.2
Rockers Target to Ground - Rear	(Inches)		6.8		7.0
Nose to Steering Wheel	(Inches)		17.4		
Nose to Instrument Panel	(Inches)				22.0
Torso to Instrument Panel	(Inches)				18.2
Torso to Steering Wheel	(Inches)		7.7		
Top of Legs to Steering Wheel	(Inches)		2.4		
Knee Spread	(Inches)		9.4		7.8
Bumper Target to Ground	(Inches)		—		—
Head Angle	(degrees)		0.2		0.2
Pelvic Angle	(degrees)		22.6		21.8
Neck Bracket Angle	(degrees)		0		0
Rockers Angle	(degrees)		0.5		0.8
Seat Back Angle	(degrees)		27.6		27.8





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 File No. Until 2021

Inter Office

Research and Vehicle Technology

June 27, 2001

To: Manager

Subject: Crash Test No. 12060, T-C1830 Test Report Corrections, R/1

The final report of the subject crash test was corrected as follows:

Sheet 4 Occupant Injury Data (FVMS 200) - The Dummy Neck Upper Load  
 was changed from:

	L.F. DUMMY	R.F. DUMMY
NTH	0.6253	0.4404
NTF	0.4003	0.3626
NCH	0.3381	0.3670
NCF	0.1409	0.1949

to:

	L.F. DUMMY	R.F. DUMMY
NTH	0.4629	0.3780
NTF	0.1952	0.2730
NCH	0.2038	0.3208
NCF	0.1575	0.2012

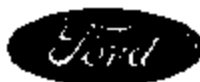
*M. A. DeShong*

M. A. DeShong  
 Operations Engineering Section  
 Safety Laboratories Department

*M. Hamilton*

Concur: M. Hamilton  
 Section Supervisor  
 Operations Engineering Section

corr.12060



"RECORD COPY"

Schedule No. 7-7-12

Retain Until 2021

**FINAL TEST REPORT**

**CONFIDENTIAL**

**Global Test Operations  
Research and Vehicle Technology**

<b>TO:</b>	J. Fazio	Test Order No.	T-C1830
		Work Task W. O. No.	F17
		Test Date	11/8/00
		Date Reported	2/6/01
		Sheet	1 of 5

**SUBJECT:** Crash Test 12060 (90° Front Fixed Barrier Impact at  $24.9 \pm 0.4$  mph,  $40.1 \pm 0.6$  km/h)  
- 2000 Seble (D186) 4-Door Wagon

**REQUESTED BY:** Vehicle Crash Safety Department, Research and Vehicle Technology - J. Fazio

**OBJECT:** To obtain development data relative to FMVSS 202.

**SUMMARY OF TEST RESULTS:** • See Section 1.0 for injury criteria data.

*R. Barabart*  
R. Barabart  
Engineering Technologist

Concur:

*S. Lash*  
S. Lash  
Section Supervisor  
Operations Engineering Section

CRTS 0012060

**VEHICLE DATA:**

<b>Make and Model</b>	2000 Saab (D186) 4-Door Wagon (Production Vehicle)	
<b>ID Number</b>	1MEFM59S4YG600019, 307-W-152	
<b>Power Train</b>	3.0L EFI, Automatic Transaxle	
<b>Fuel Tank(s)</b>	Usable Capacity: 18.0 gal. (68.1L) Test Condition: Removed	
<b>Front Seat(s)</b>	Type: Bucket  Cover: Leather  Tracks/Position: LF: 6-Way Power/Full Forward LF: Vertical/Mid RF: 6-Way Power/Full Forward RF: Vertical/Mid  Seat Backs/Position: Adjustable/Not Measured  Head Restraints/Position: Adjustable/Down	
<b>Restraint System</b>	LF: Steering Wheel Air Bag  RF: Instrument Panel Air Bag	
<b>Occupants</b>	LF & RF: 5th Percentile Female, Hybrid III, Instrumented	
<b>Test Weight</b>	Front: 2288 lb (1038 kg) Rear: 1564 lb (709 kg) Total: 3852 lb (1747 kg)	
<b>Tires</b>	Front: P215/60R16 Rear: P215/60R16 Spare: Removed	30 psi (207 kPa) 30 psi (207 kPa)
<b>Significant Content or Accessories:</b>	Air Conditioning, Power Steering, Power Brakes, Tilt Steering Wheel	

**GENERAL TEST COMMENTS:****1. Test Procedure**

The test was performed according to the following Corporate test procedure(s):

Occupant Crash Protection, CEP-ST-23 dated March 3, 1998.

**1.1 Significant Deviations**

The fuel system did not contain stoddard.

**2. Remarks**

Crash movies, pre- and post- crash still images of the test vehicle and copies of this report are available through the Operations Engineering Section, Safety Laboratories Department, GTO. The crash still images are stored and archived on CD ROMs. The file names of the still images are listed under crash number and a three digit sequence number which are 12060001 through 12060069.



**TEST RESULTS:****1.0 Occupant Injury Data (FMVSS 208)**

	<b>L. F. Dummy</b>	<b>R. F. Dummy</b>
<b>Head Injury Criteria (HIC) @ 15 ms</b>	<b>64</b>	<b>244</b>
Interval t1	57 ms	74 ms
Interval t2	72 ms	89 ms
<b>Dummy Neck Upper Load:</b>		
NTE	0.4629	0.3780
NIF	0.1951	0.2730
NCE	0.2008	0.3208
NCF	0.1575	0.2012
<b>Chest resultant acceleration level at 5 ms cumulative duration</b>	<b>39 g</b>	<b>57 g</b>
<b>Chest Deflection (Hybrid III)</b>	<b>2.0 in</b>	<b>0.4 in</b>
<b>Peak axial compression load:</b>		
Left femur	511 lb	566 lb
Right femur	1127 lb	713 lb
<b>Peak axial tension load:</b>		
Left femur	20 lb	24 lb
Right femur	34 lb	14 lb
<b>Dummy contained within the vehicle during the crash</b>	<b>Yes</b>	<b>Yes</b>

Time histories of the dummy instrumentation are included in this report.

Time histories of the dummy dynamic displacements obtained from Film Analysis are included in this report.

Time histories of the air bag/sensor(s) are included in this report.

Time histories of any requested derived data (i.e. integrations, etc.) were given to the requesting activity and are not included in this report.

**TEST RESULTS: (Cont'd)****2.0 Vehicle Crush, Film Analysis and/or Instrumentation Data**

	Maximum Dynamic Longitudinal Crush	
	in.	(mm)
Left Side	18.2	(462)
Right Side	18.9	(480)

Time histories of the vehicle accelerations and other instrumentation are included in this report.

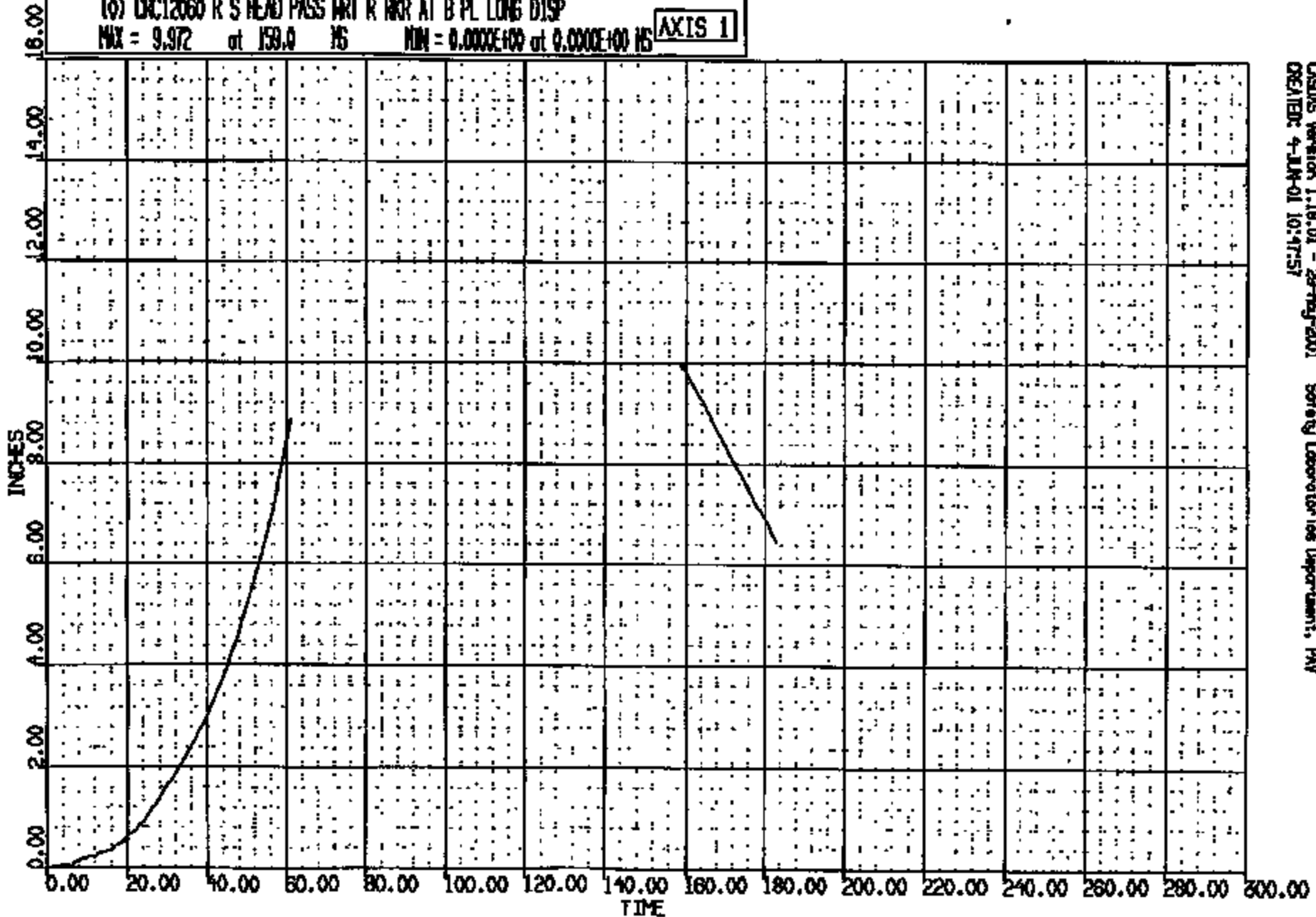
Time histories of vehicle dynamic displacements obtained from Film Analysis are included in this report.

Time histories of any requested derived data (i.e. integrations, etc.) were given to the requesting activity and are not included in this report.

NO R: 12060 TO: TC1230 DATE: 001108 18:31:14  
NO000 D188

(0) CXC12060 R S HEAD PASS WRT R RWR AT B PL LONG DISP  
MAX = 9.972 at 159.0 HS MIN = 0.0000E+00 at 0.0000E+00 HS

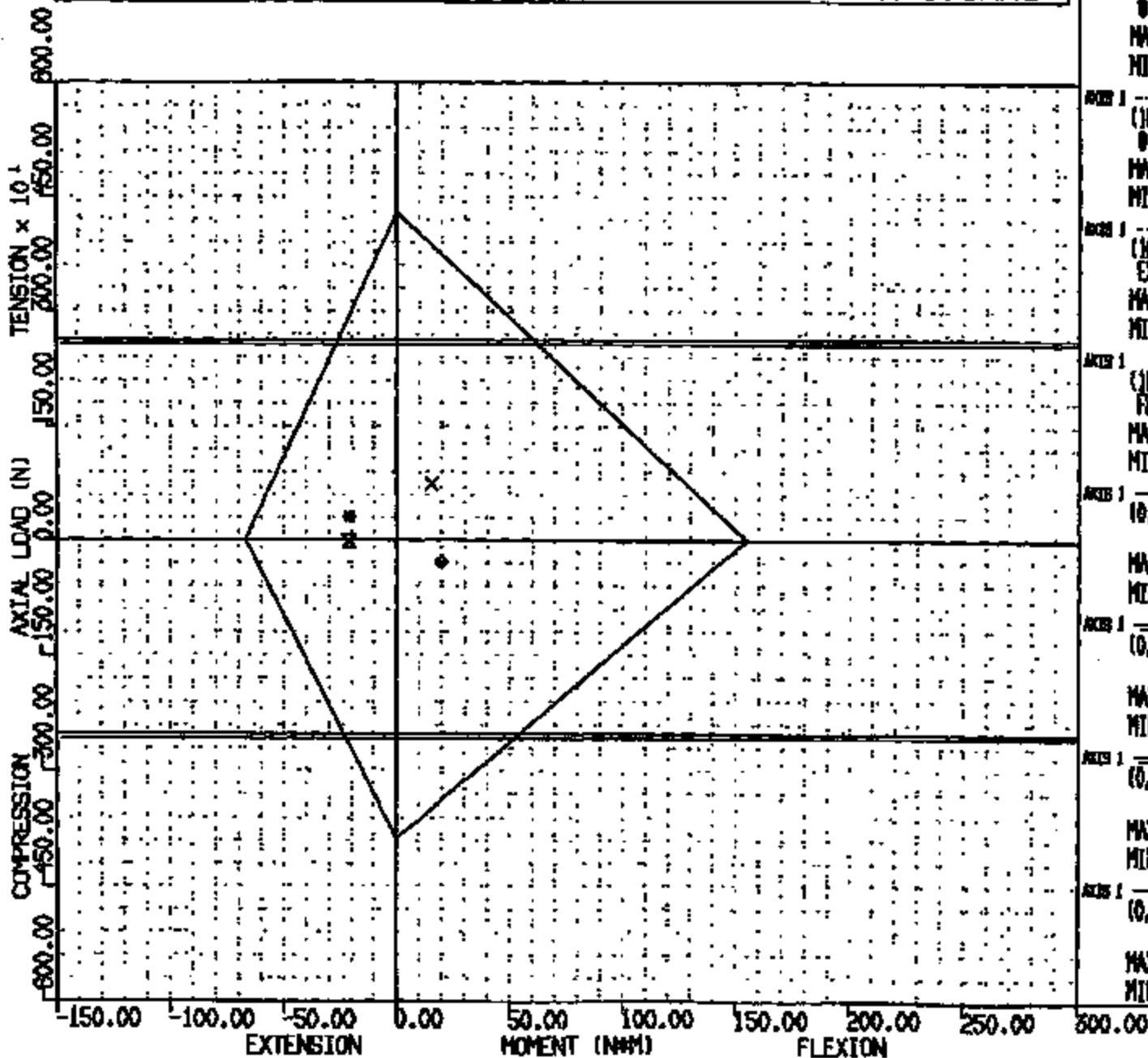
AXIS 1



CRTS 0012060

CASINS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNW  
CREATED: 4-JUN-01 10:47:57

03 JVB8908 N1J NECK INJURY CRITERIA CORRIDOR PLOT  
 STH #: 18080 TO: TC1890 DATE: 001108 18:31:14  
 CRINX DUMMY IN: POSITION TEST  
 CR1ROBOT\_R/F DUMMY\_NECK\_UPPER\_LOAD\_FZ\_800N  
 CR1ROBOT\_R/F DUMMY\_NECK\_UPPER\_LOAD\_MY\_800N [CORR]

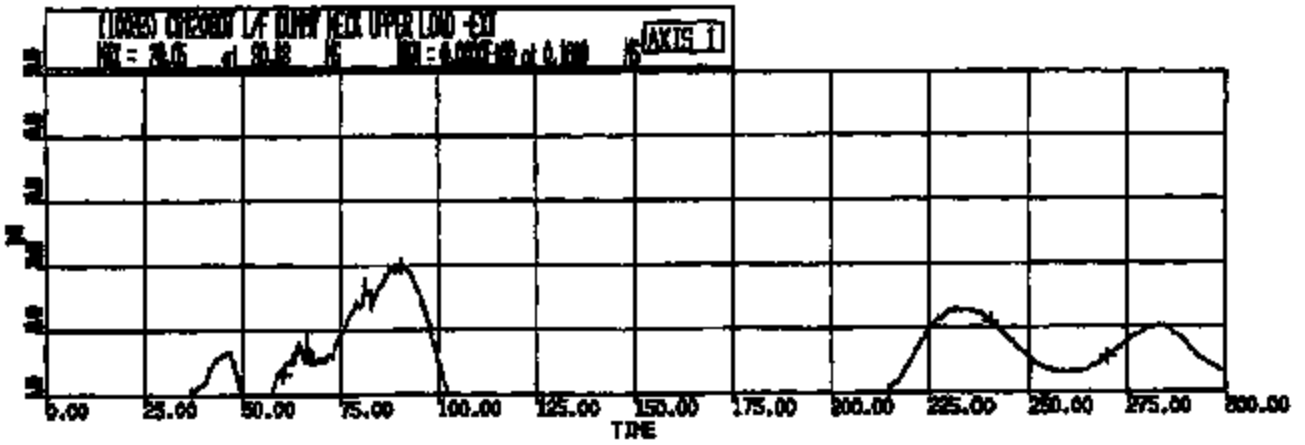
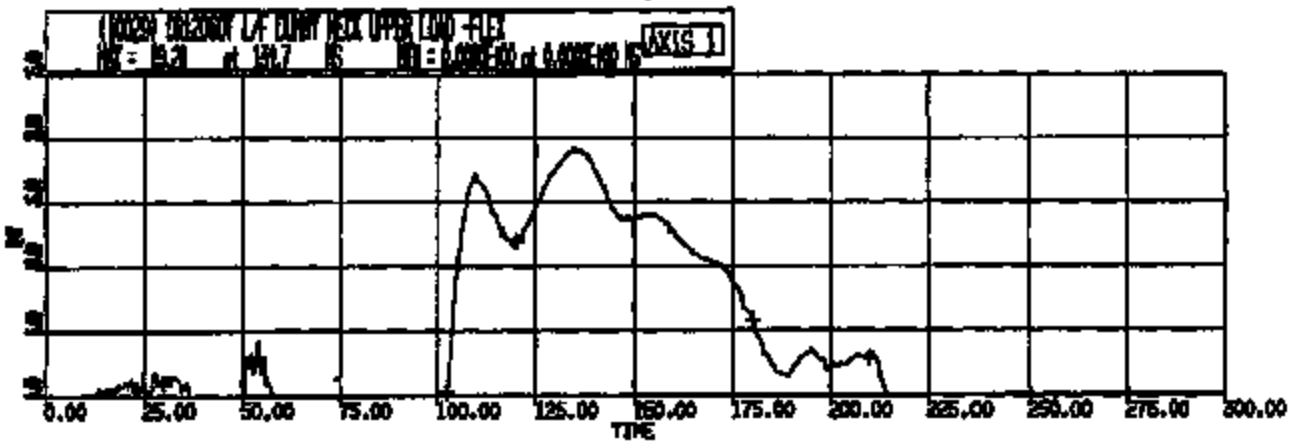
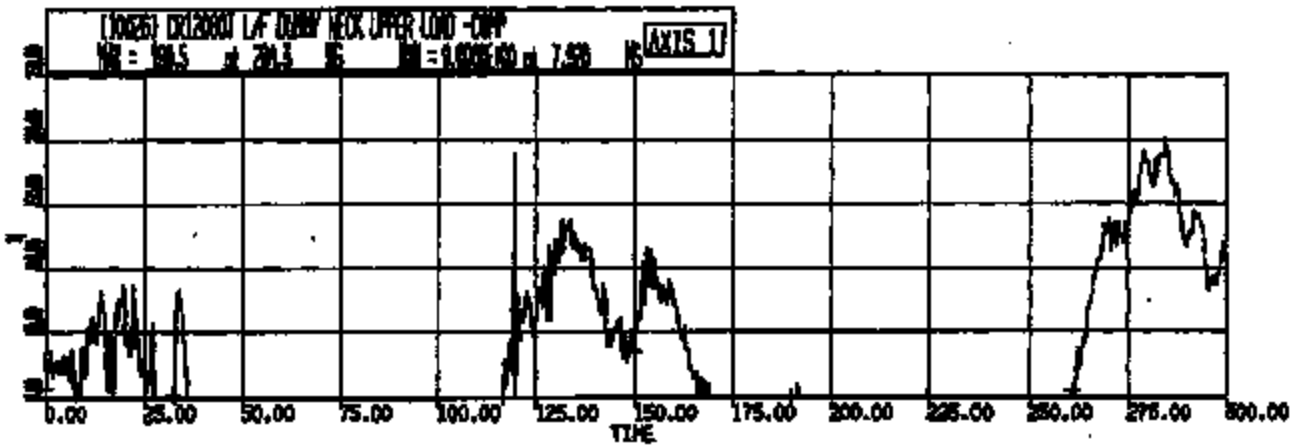
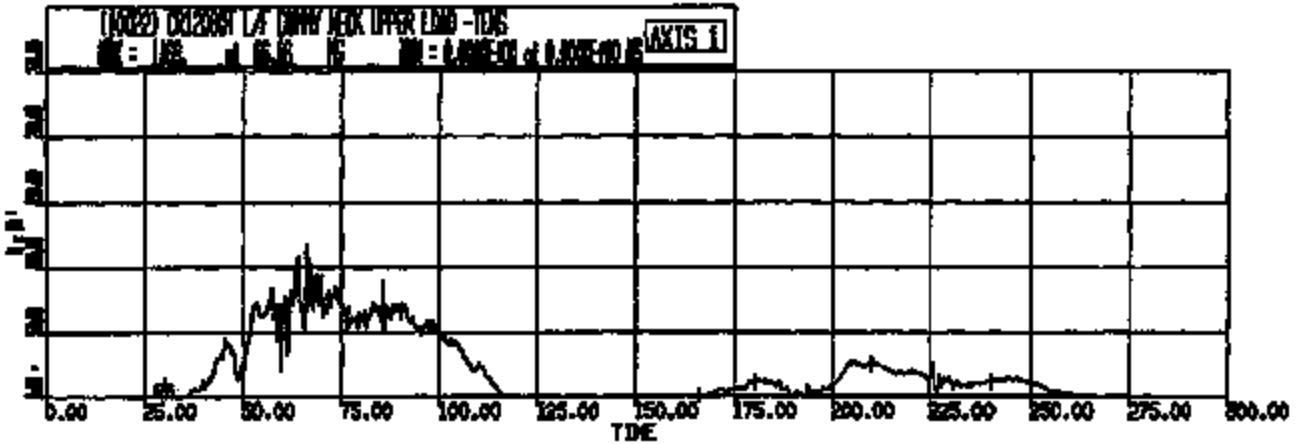


FOREIGN	
AXIS 1	(10286, 10287) NECK TENSION EXTENSION @ TIME OF MAX NIE MAX = 302.2 at -20.60 MIN = 302.2 at -20.60
AXIS 1	(10281, 10280) NECK TENSION FLEXION @ TIME OF MAX NIF MAX = 738.5 at 15.62 MIN = 738.5 at 15.62
AXIS 1	(10067, 10068) NECK COMPRESSION EXTENSION @ TIME OF MAX NCE MAX = -20.74 at -21.13 MIN = -20.74 at -21.13
AXIS 1	(10065, 10066) NECK COMPRESSION FLEXION @ TIME OF MAX NCF MAX = -283.8 at 19.84 MIN = -283.8 at 19.84
AXIS 1	(0,0) N1J CORRIDOR MAX = 4287. at 0.0000E+00 MIN = -3880. at 0.0000E+00
AXIS 1	(0,0) PEAK TENSION CRITERIA MAX = 2620. at -150.0 MIN = 2620. at -150.0
AXIS 1	(0,0) PEAK COMPRESSION CRITERIA MAX = -2520. at -150.0 MIN = -2520. at -150.0
AXIS 1	(0,0) X AND Y AXIS MAX = 6000. at 0.0000E+00 MIN = -6000. at 0.0000E+00

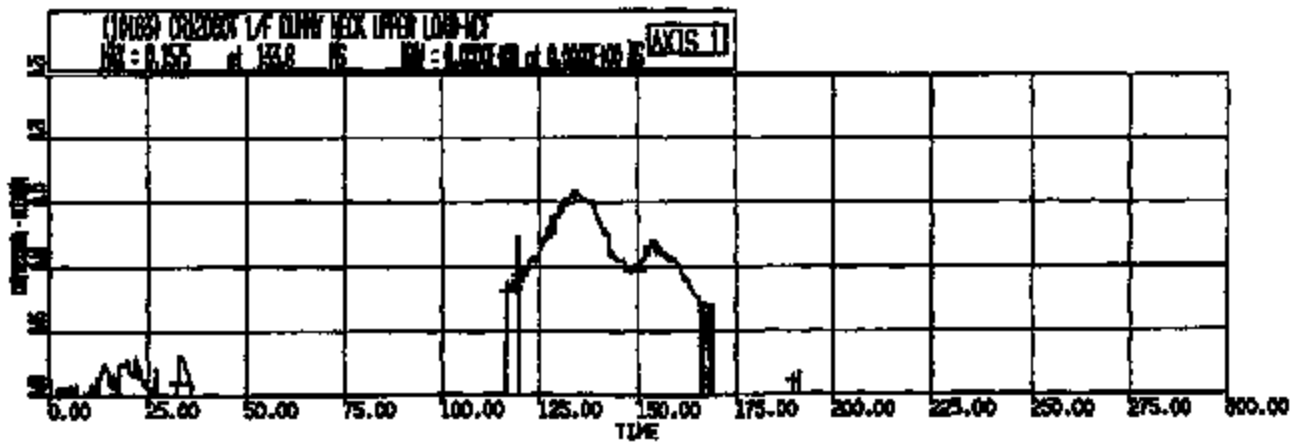
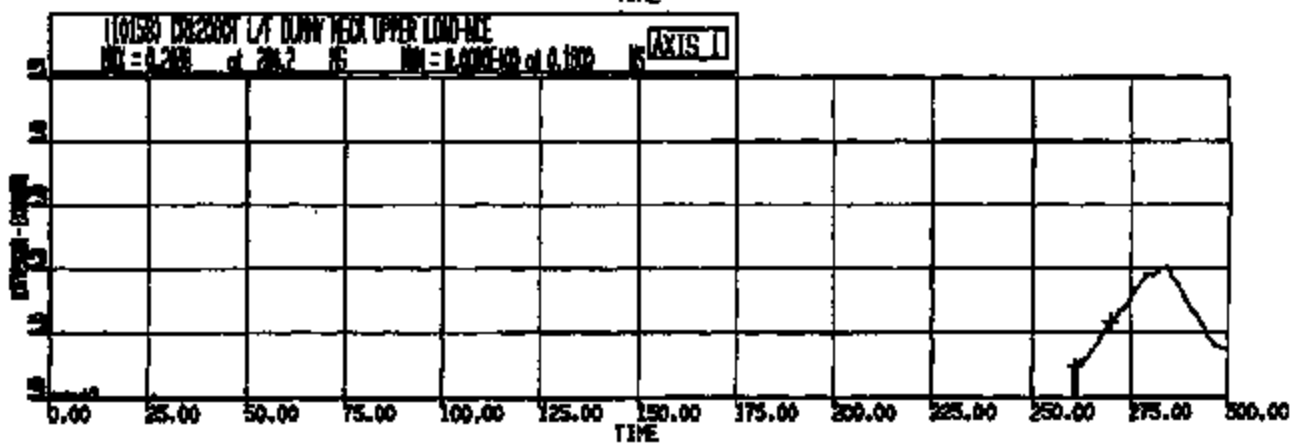
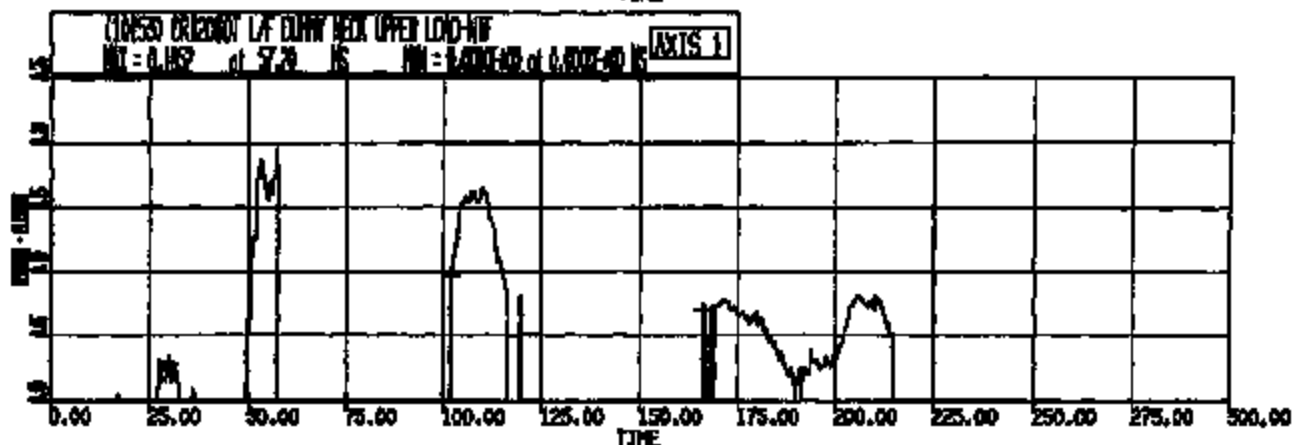
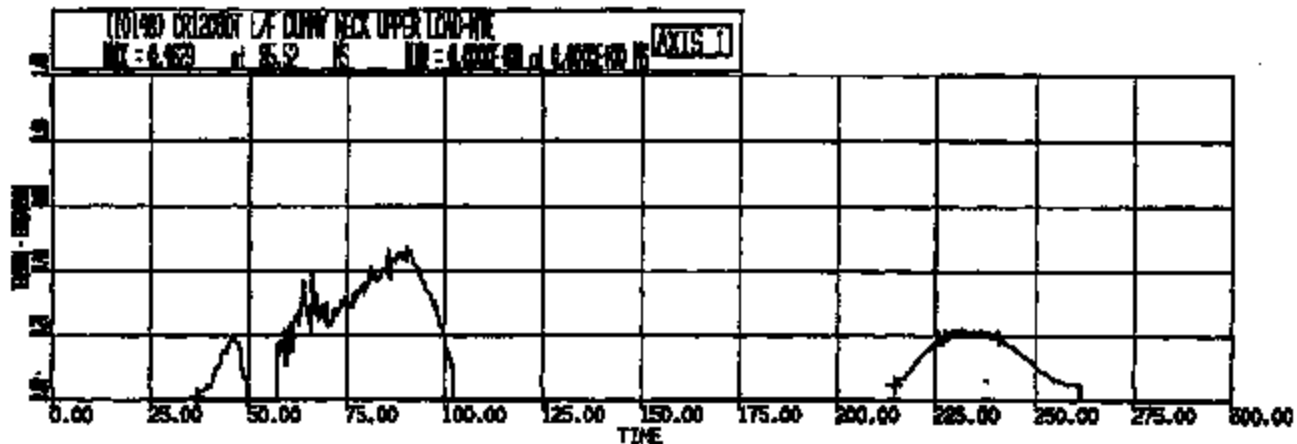
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CRIS 0012060

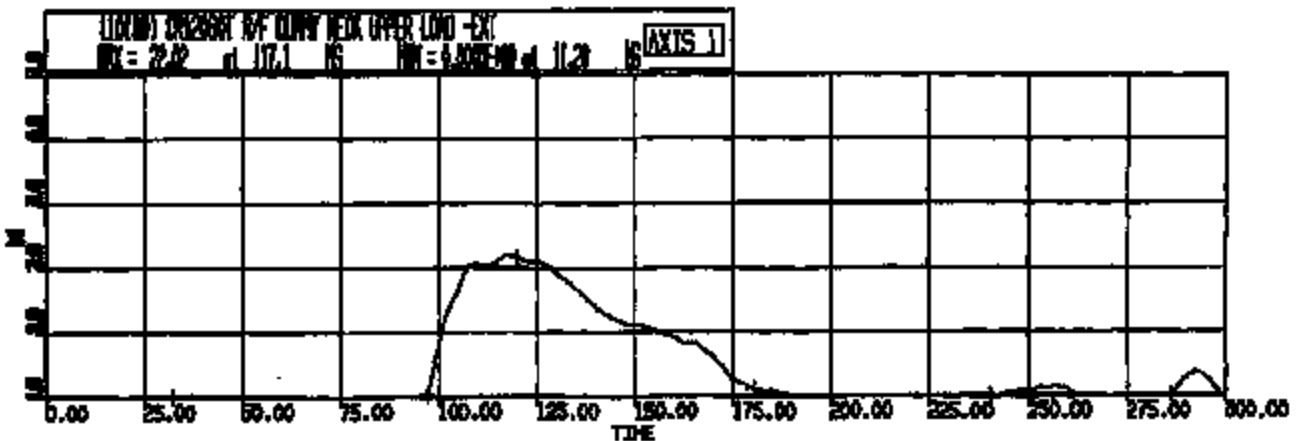
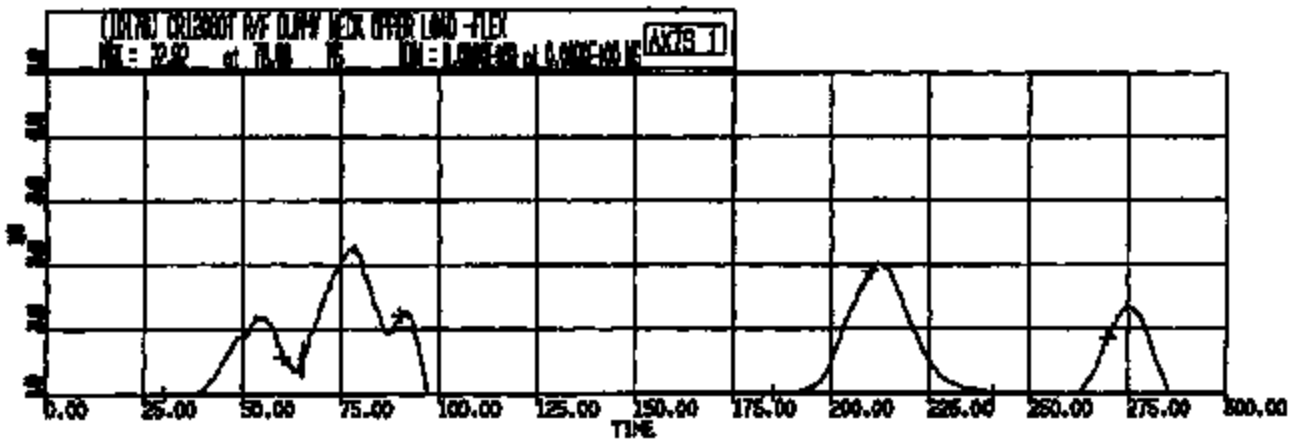
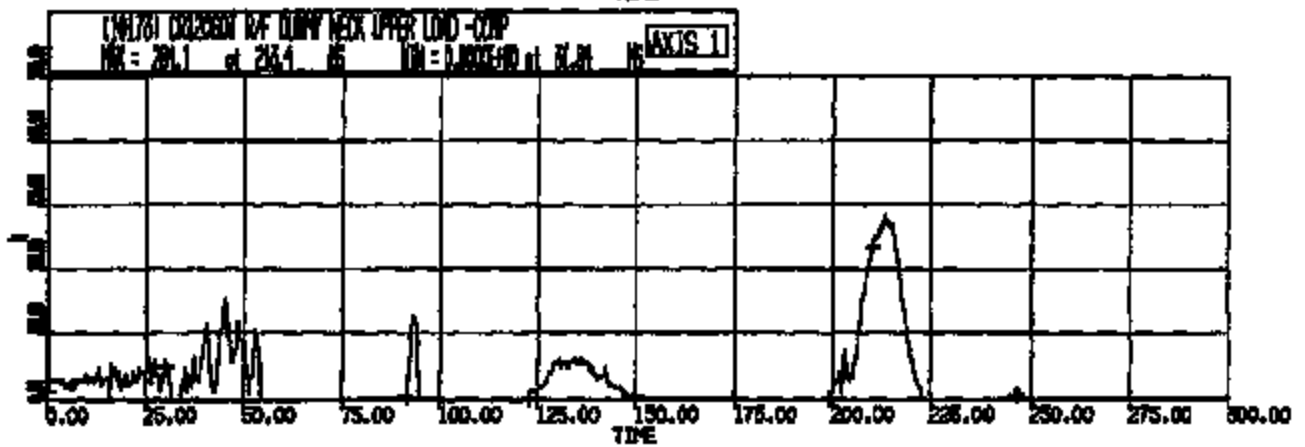
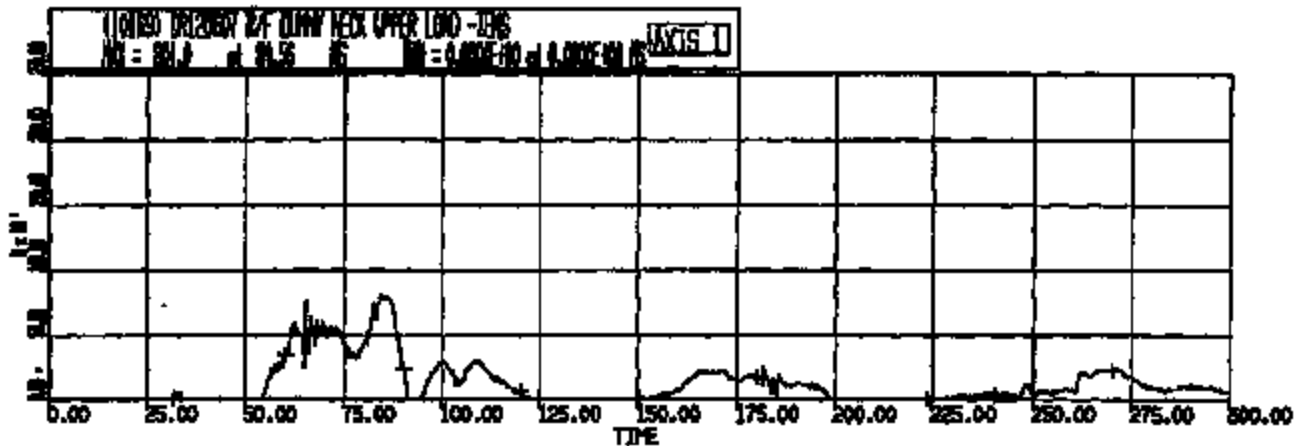
F:\VIB208 NIJ NECK INJURY CRITERIA COMPONENT PLOTS  
 CUR R: 12080 TO: 10180 DATE: 00108 1818114  
 CBT H X DUMMY IN POSITION TEST  
 CUR12080T L/F - DUMMY\_NECK\_UPPER\_LOAD\_FZ\_BOON  
 CUR12080T L/F - DUMMY\_NECK\_UPPER\_LOAD\_MY\_BOON EQRR2



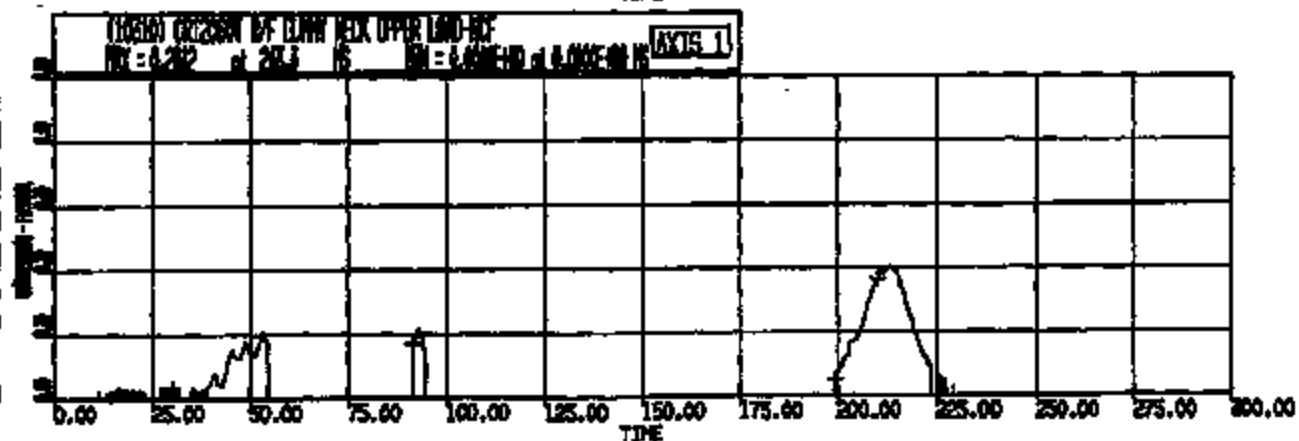
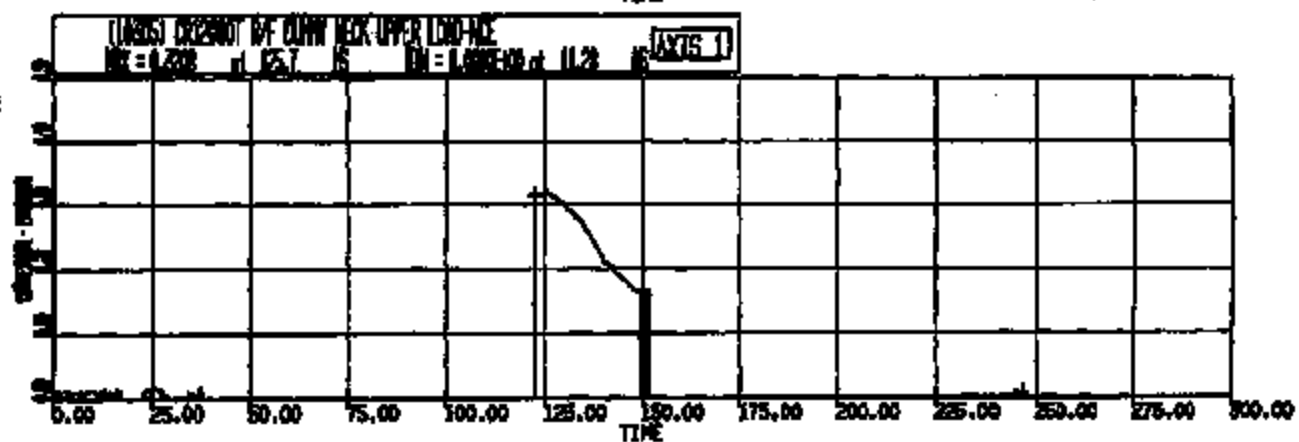
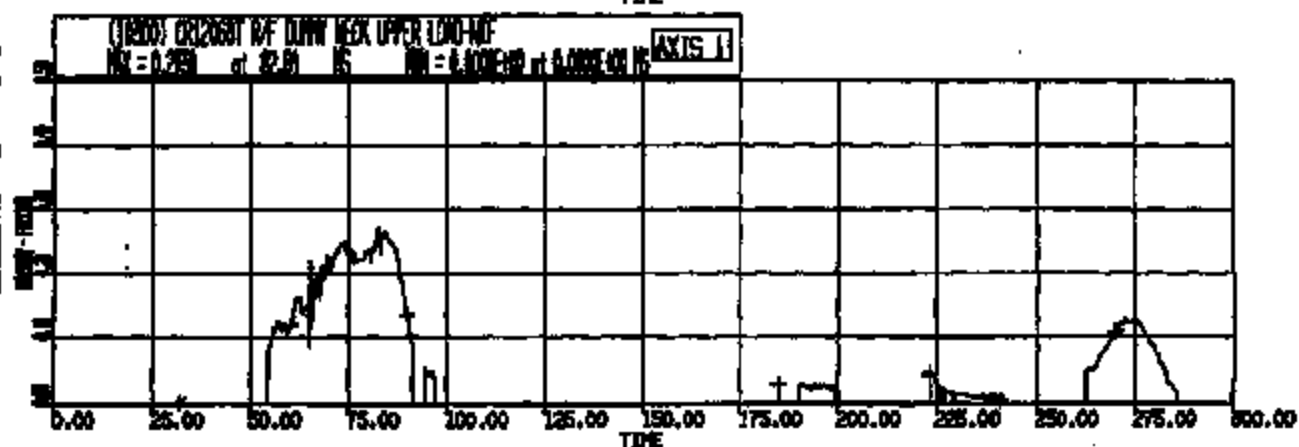
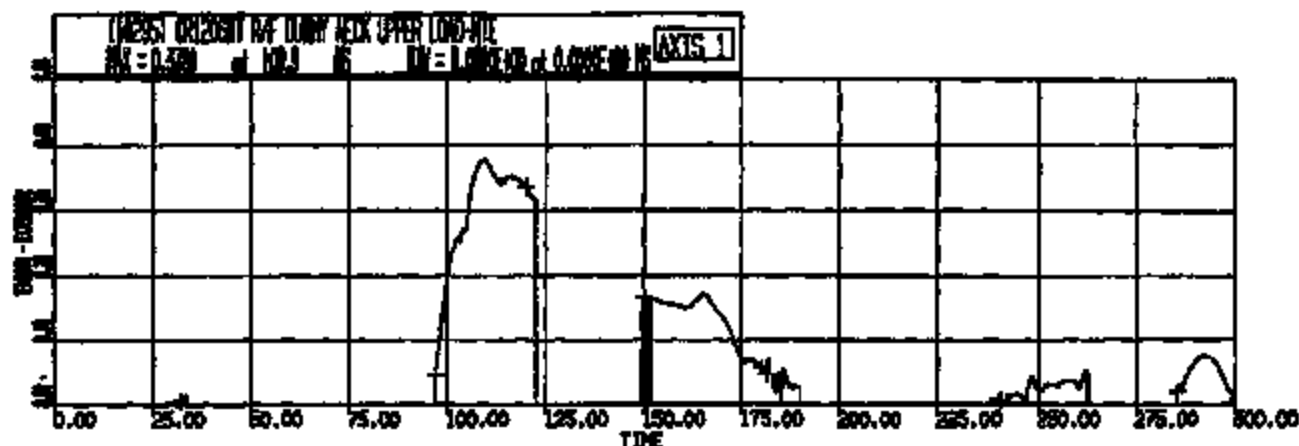
INJURY CRITERIA (TA NORMALIZED)  
 DATE: 06/11/01 16:31:17  
 TEST POSITION TEST  
 UPPER\_LOAD\_PZ\_800N [CORR]  
 NECK\_UPPER\_LOAD\_MY\_800N [CORR]  
 DUMMY\_1  
 DUMMY\_2  
 DUMMY\_3  
 DUMMY\_4  
 DUMMY\_5  
 DUMMY\_6  
 DUMMY\_7  
 DUMMY\_8  
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 DUMMY\_10  
 DUMMY\_11  
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 DUMMY\_98  
 DUMMY\_99  
 DUMMY\_100



V85208 NIJ NECK INJURY CRITERIA COMPONENT PLOTS)  
 CURR: 12080 TO: T01850 DATE: 001108 16:31:14  
 BATH X DUMMY IN POSITION TEST  
 DUM12080T-R/W-DUMMY-NECK-UPPER-LOAD-FZ-800N  
 DUM12080T-R/F-DUMMY-NECK-UPPER-LOAD-MY-800N [CORR]



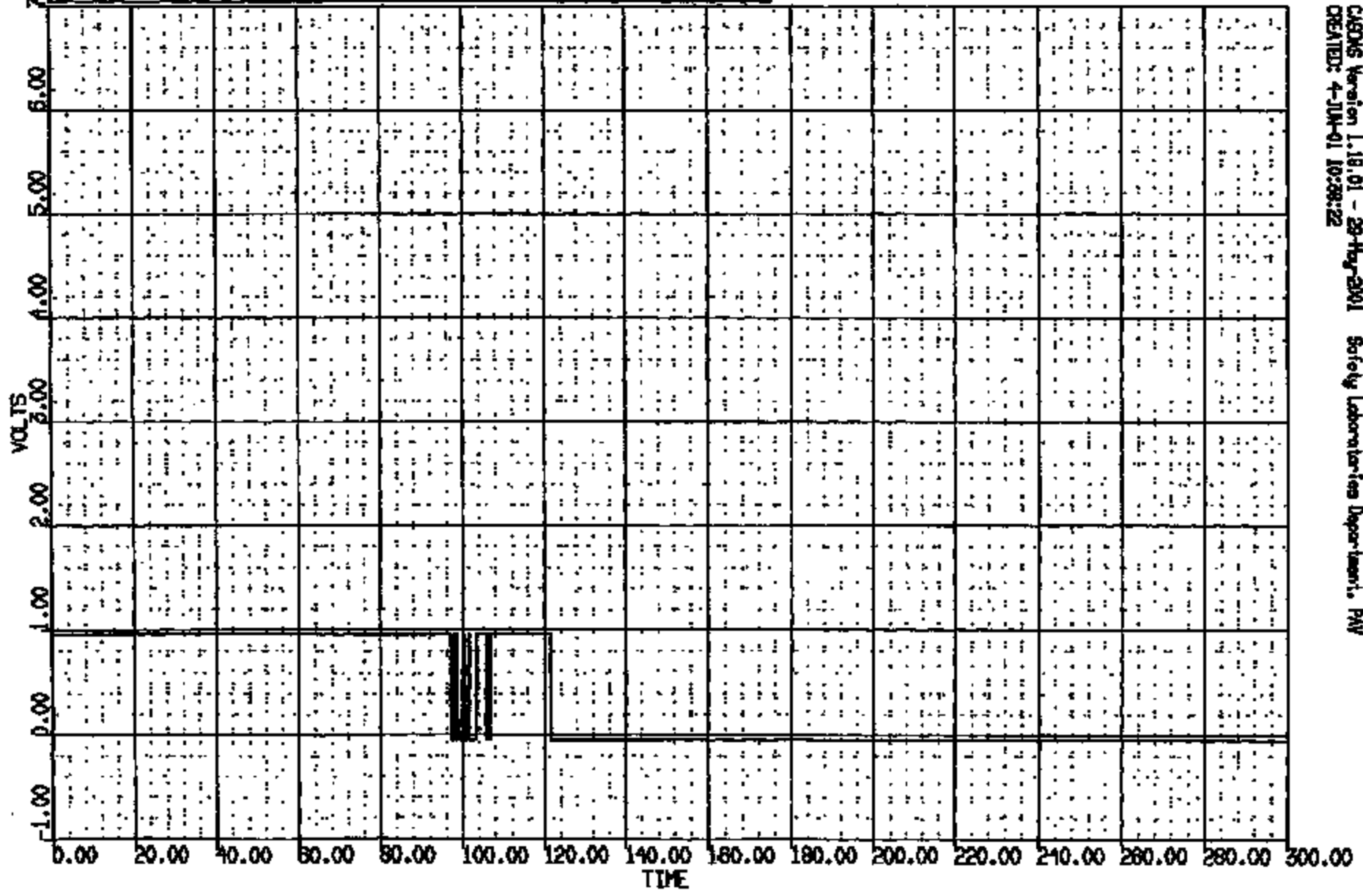
FMVSS208 NIJ NECK INJURY CRITERIA (TA NORMALIZED)  
 GNR R: 12060 TO: TC1820 DATE: 001108 16:31:17  
 5TH X DUMMY IN POSITION TEST  
 CRI2080T\_R/F - DUMMY - NECK - UPPER - LOAD - FZ - BOON  
 CRI2080T\_R/F - DUMMY - NECK - UPPER - LOAD - MY - BOON - CORR2





CR #: 12060 TO: TC1830 DATE: 001106 18:31:14  
2000 D188

(43) CR12060# ALTERNATE T-ZERO SH 4000C  
MAX = 0.9570 at -.7629E-05 NS MIN = -.4393E-01 at 97.30 NS **AXIS 1**

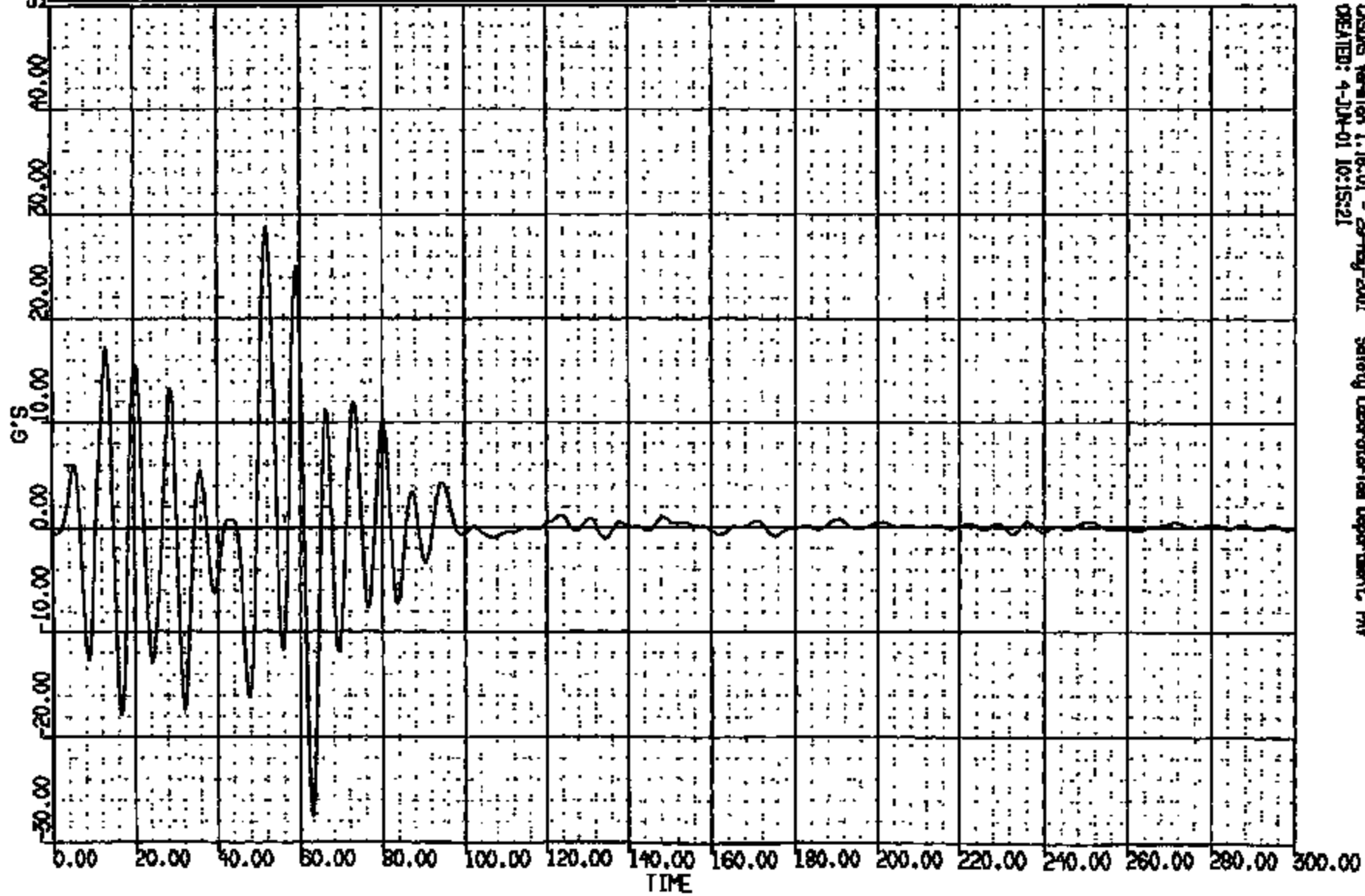


CASONS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:28:22

CRTS 0012060

CR R: 12060 TO: T01630 DATE: 001108 18:51:14  
2000 D188

(64) CR12060T C/L TNL @ DASH RCM #2 LAT 60N  
MAX = 28.88 at 51.84 MS MIN = -27.50 at 62.88 MS **AXIS 1**



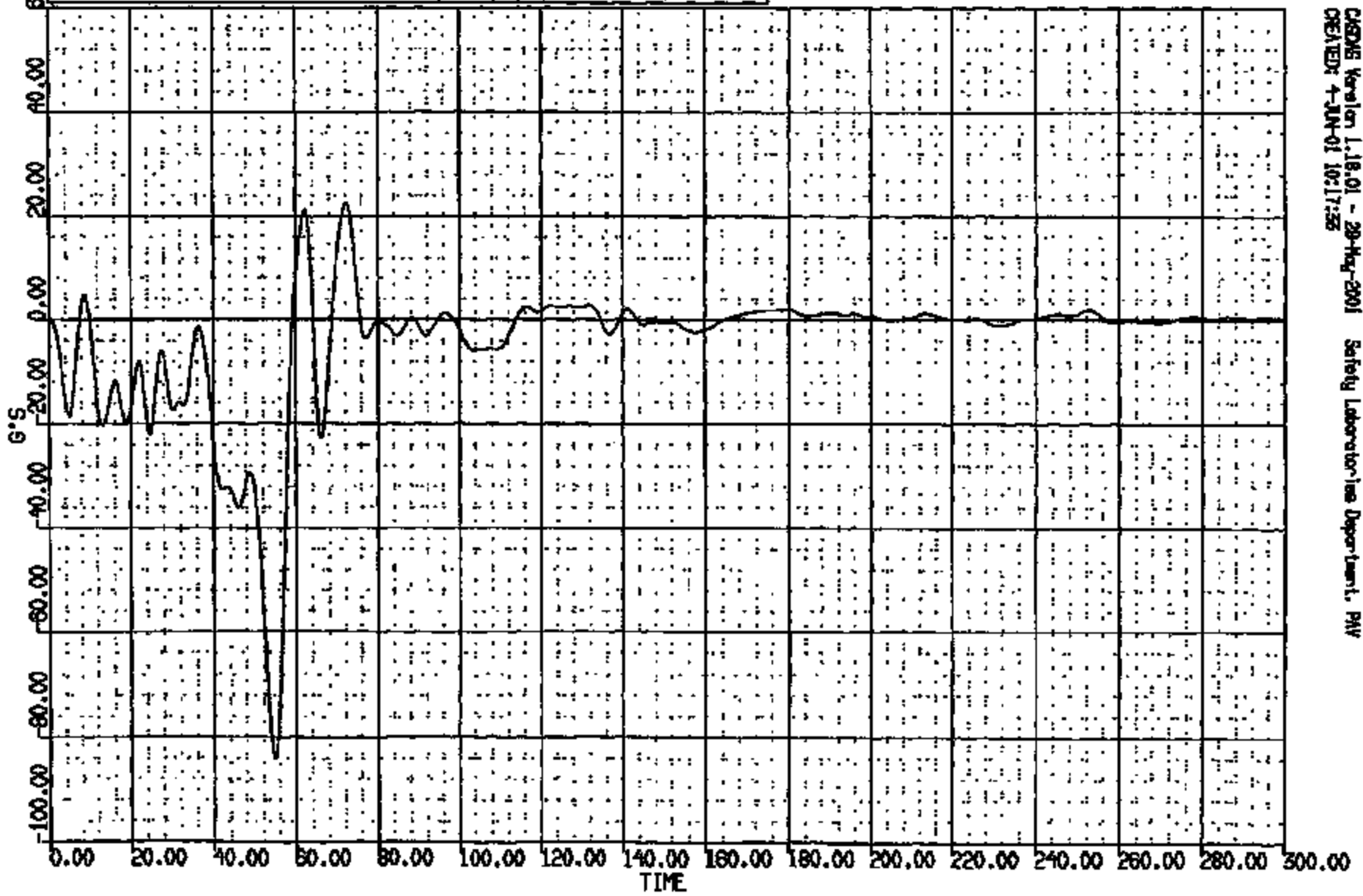
CISMS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:15:21

CRTS 0012060

CRS #: 12060 TO: YC1850 DATE: 001108 18:31:14  
3000 DISB

(62) CR12060T C/L TNL @ DASH RCM #2 LONG CON  
MAX = 22.62 at 72.21 MS MIN = -94.03 at 51.80 MS

AXIS 1



CRS#s Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:17:55

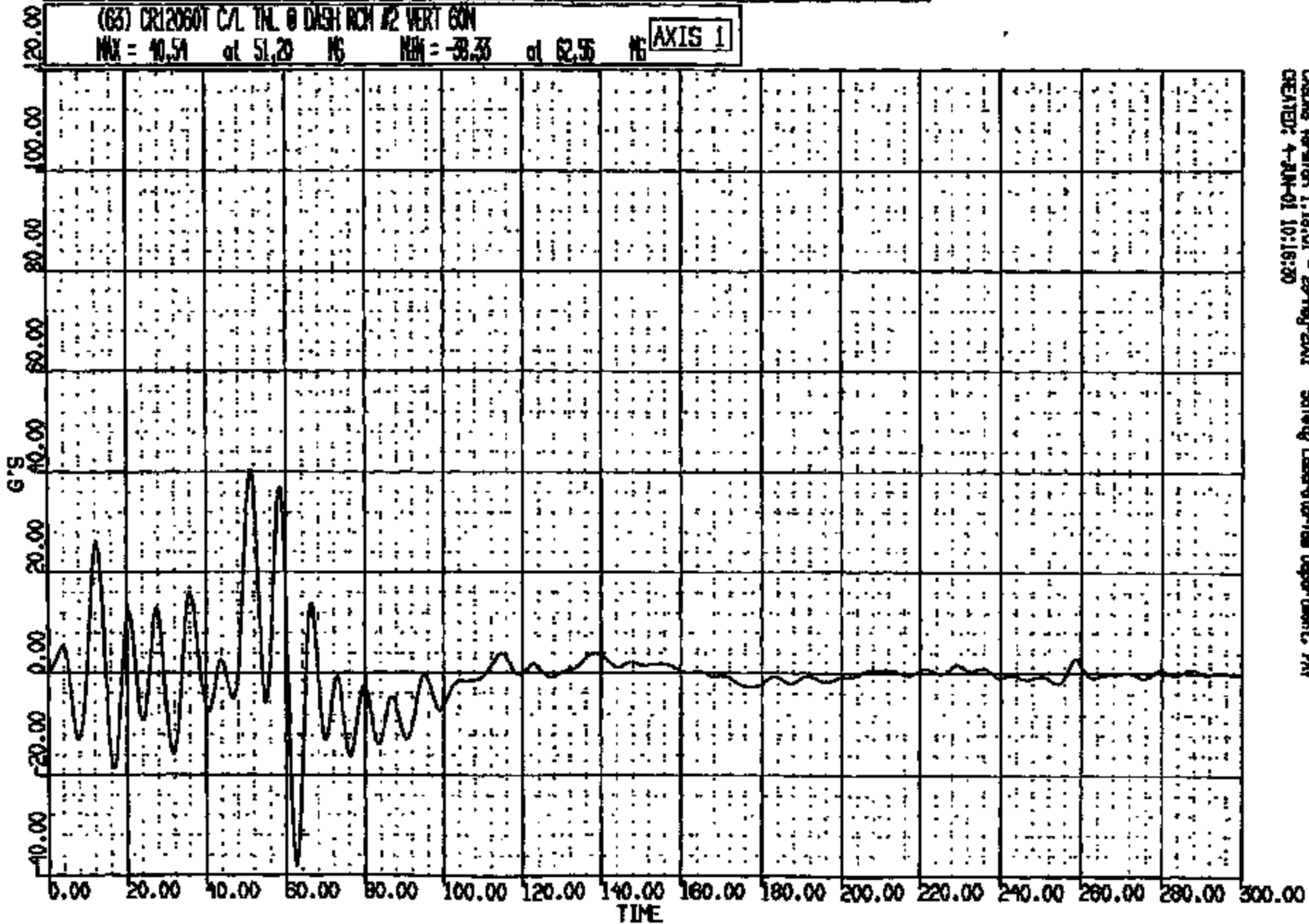
CRIS 0012060

CR R: 12060 TO: TC1830 DATE: 001108 18:21:14  
2000 D188

(63) CR12060T C/L TNL @ DASH RCM #2 VERT GON

MAX = 40.54 at 51.29 MS MIN = -38.33 at 62.56 MS

AXIS 1

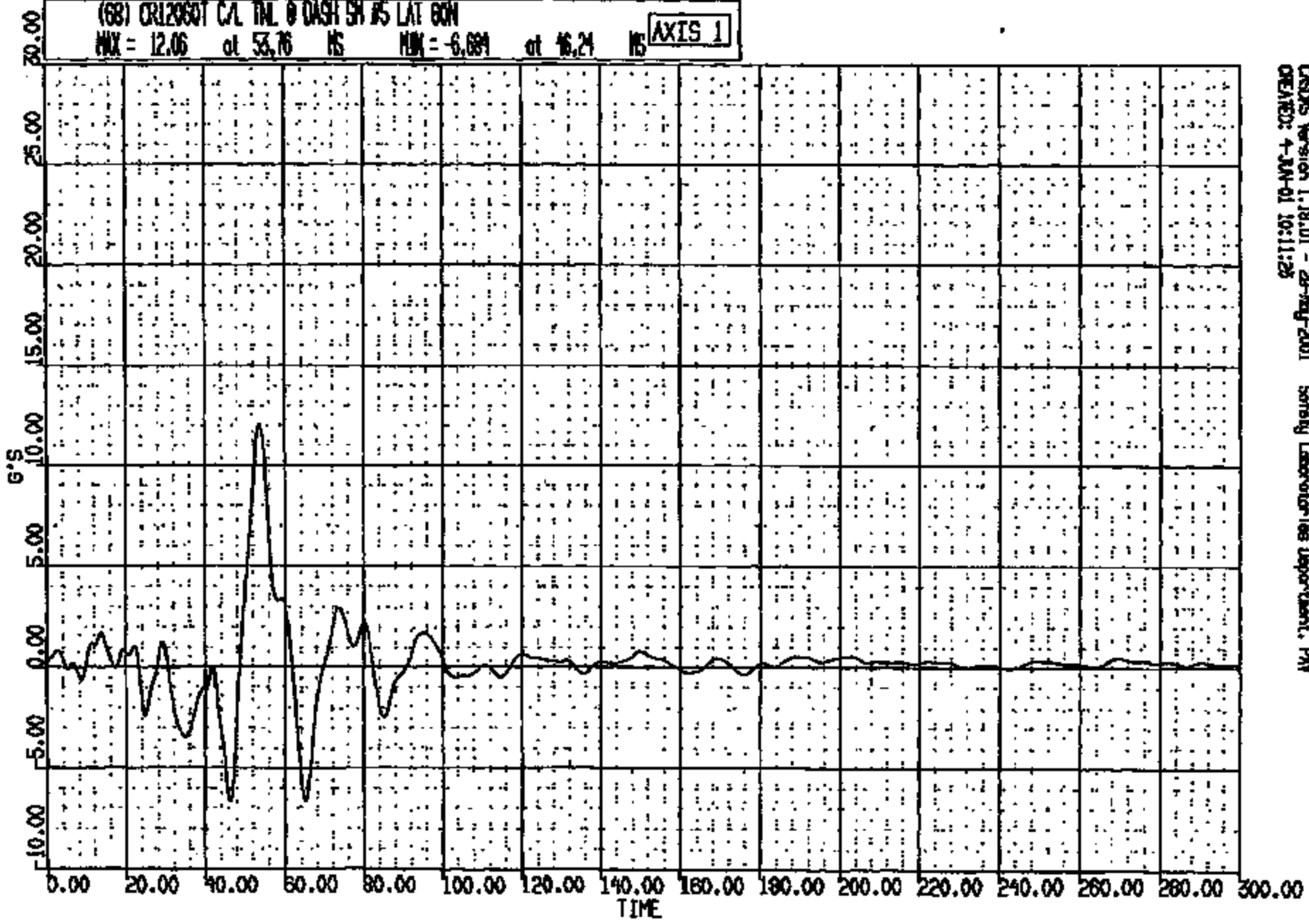


CASME Version 1.19.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:16:20

CRIS 0012060

CR #: 12060 TO: TC1850 DATE: 001108 16:31:14  
2000 D186

(68) CR12060T C/L TNL @ DASH SH #5 LAT 60N  
MAX = 12.06 at 53.76 MS MIN = -6.684 at 16.24 MS **AXIS 1**

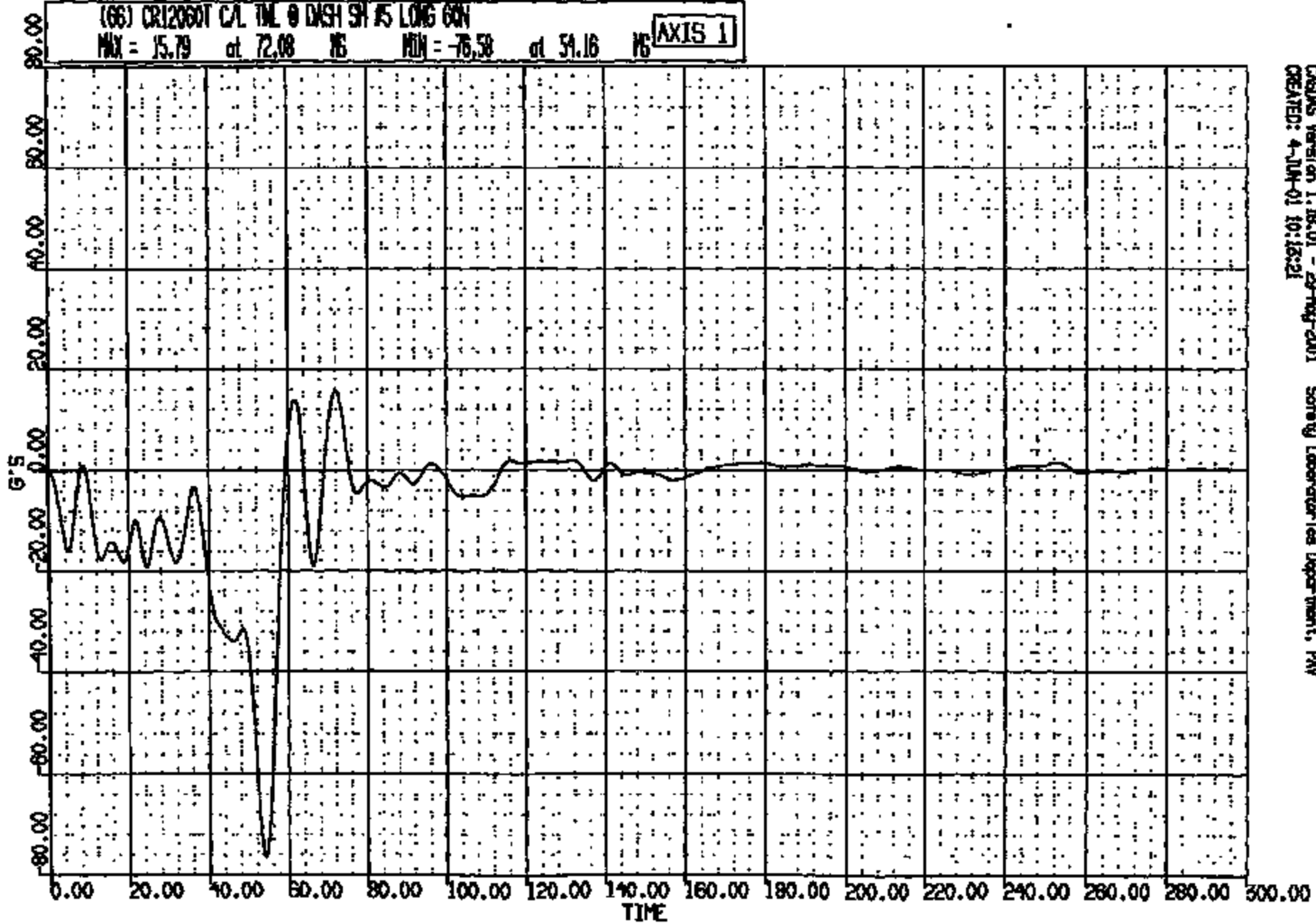


CRSMS Version 1.18.01 - 29-May-2001 Safely Laboratories Department, PHV  
CREATED: 4-JUN-01 10:11:25

CRIS 0012060

DR R: 12060 TO: TC1830 DATE: 001108 18:51:14  
2000 0188

(66) CR12060T CAL TML @ DASH SH #5 LONG 60N  
MAX = 15.79 at 72.08 NS MIN = -76.58 at 51.16 NS **AXIS 1**

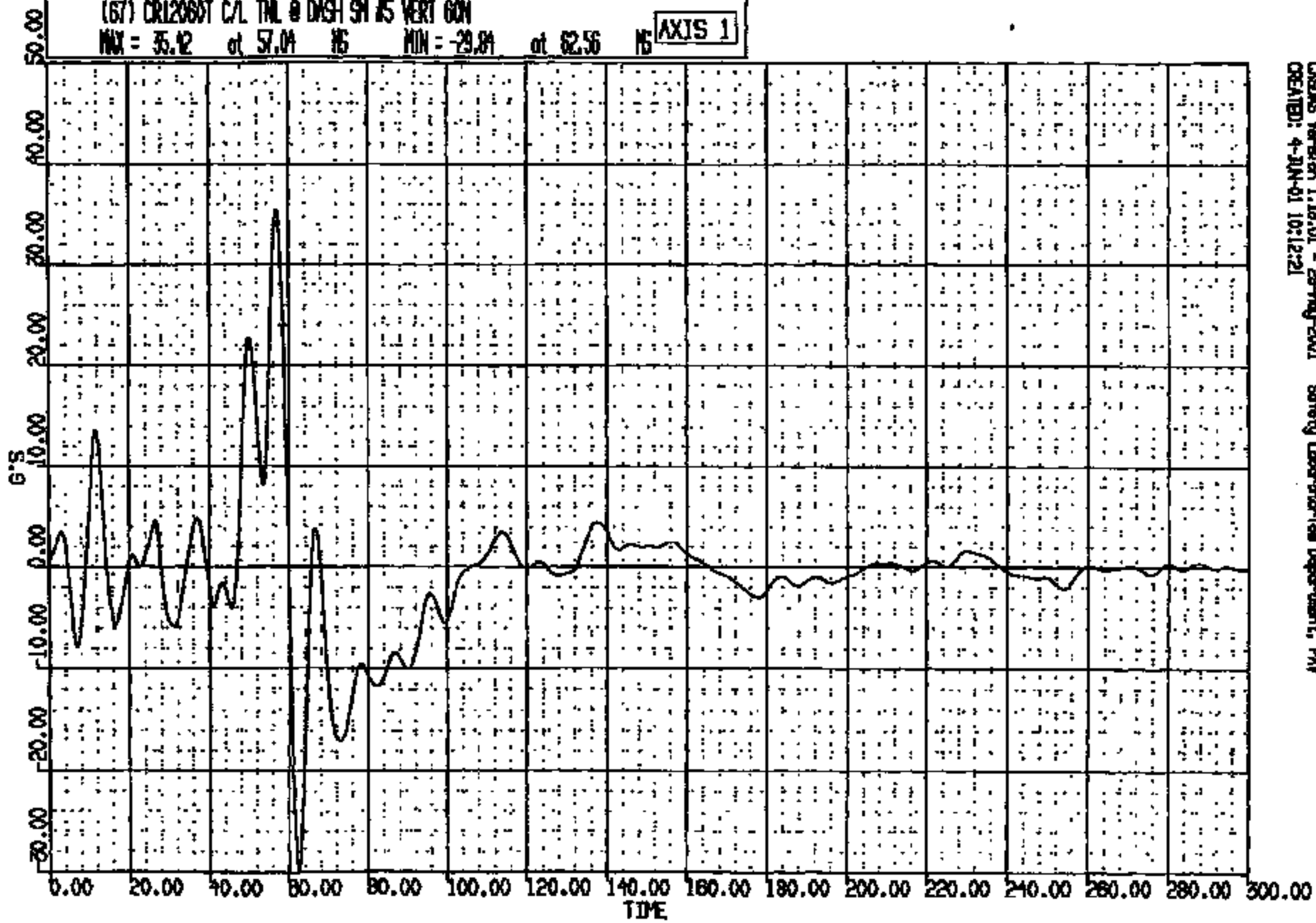


CADMS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:13:21

CRTS 0012060

CR R: 12060 TD: TC1830 DATE: 001109 18:21:14  
3000 D188

(67) CR12060T C/L TML @ DASH SH #5 VERT 60N  
MAX = 35.12 at 57.04 NS MIN = -29.84 at 62.56 NS **AXIS 1**

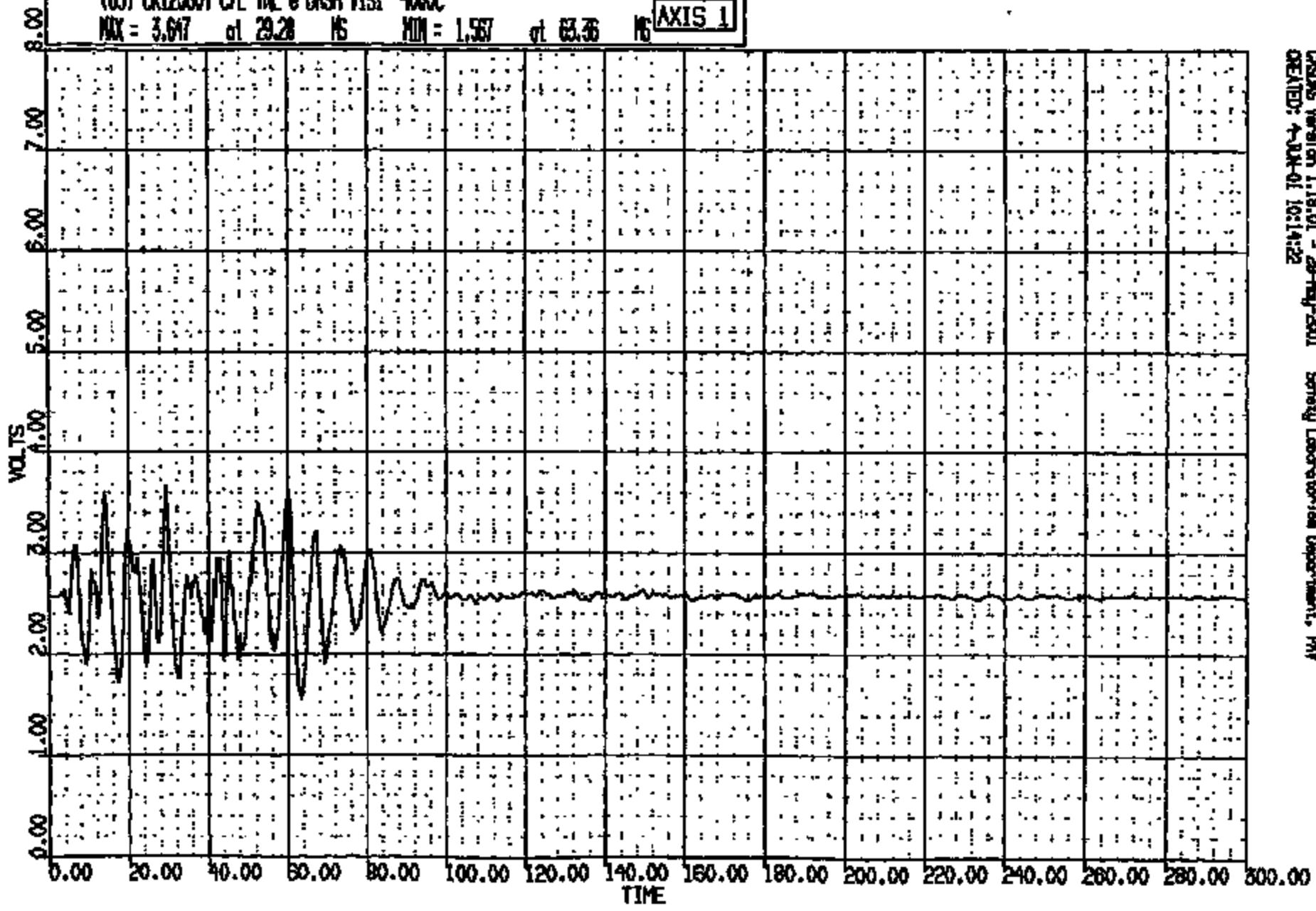


CASMS Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PMV  
CREATED: 4-JUN-01 10:12:21

CRTS 0012060

CR R: 12060 TO: TC1830 DATE: 001109 18:51:14  
2000 DISC

(65) CR12060T C/L TML @ DASH VISE 4000C  
MAX = 3.617 at 29.28 MS MIN = 1.567 at 63.36 MS **AXIS 1**



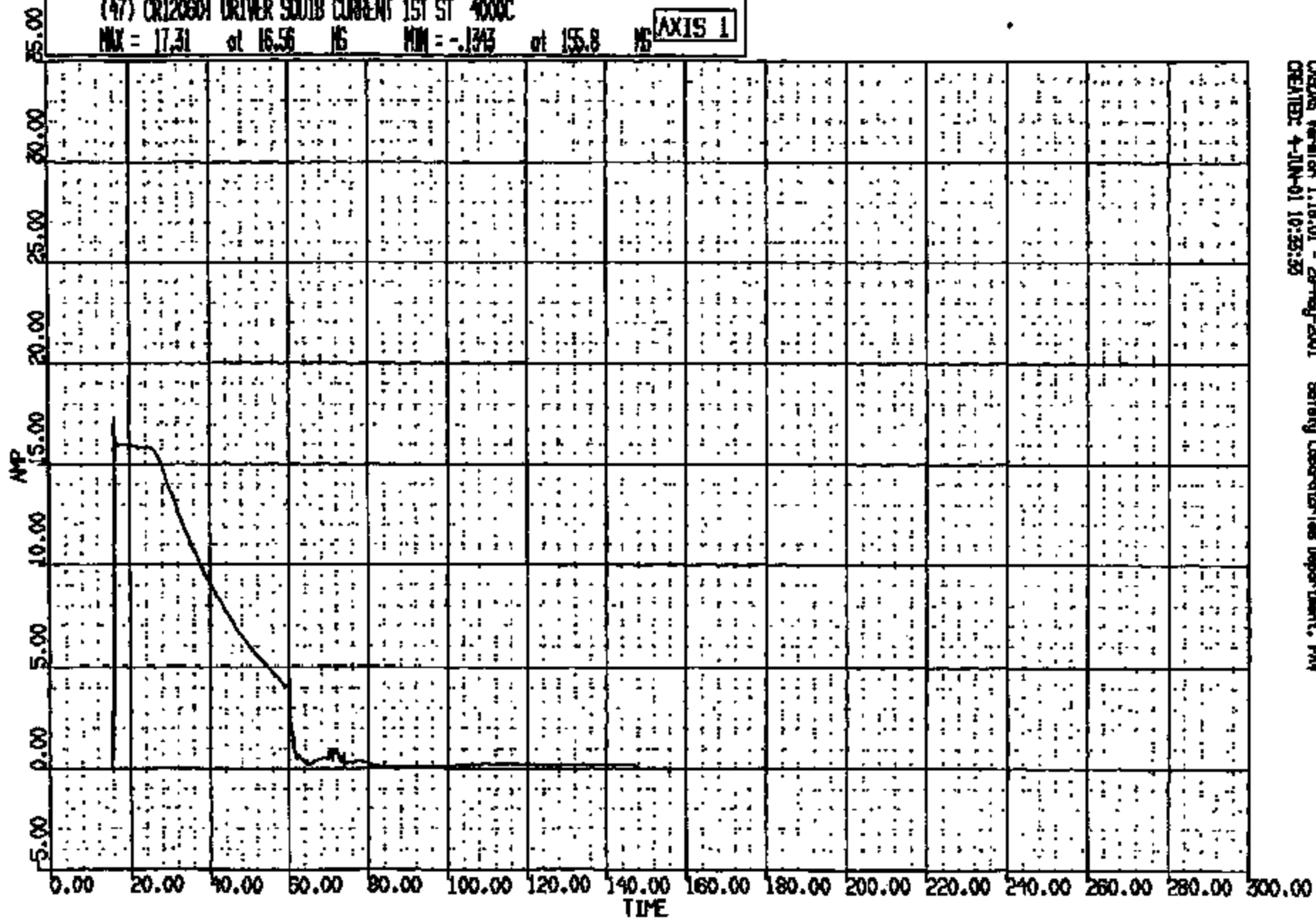
CASMS Version 1.18.01 - 28-May-2001 Safety Laboratory Department, PMV  
CREATED: 4-JUN-01 10:14:22

CRTS 0012060



CR R: 12060 TO: TC1850 DATE: 001106 18:51:14  
2000 D188

(47) CR120601 DRIVER SOUTH CURRENT 1ST ST 4000C  
MAX = 17.31 at 16.56 MS MIN = -.1343 at 155.8 MS **AXIS 1**

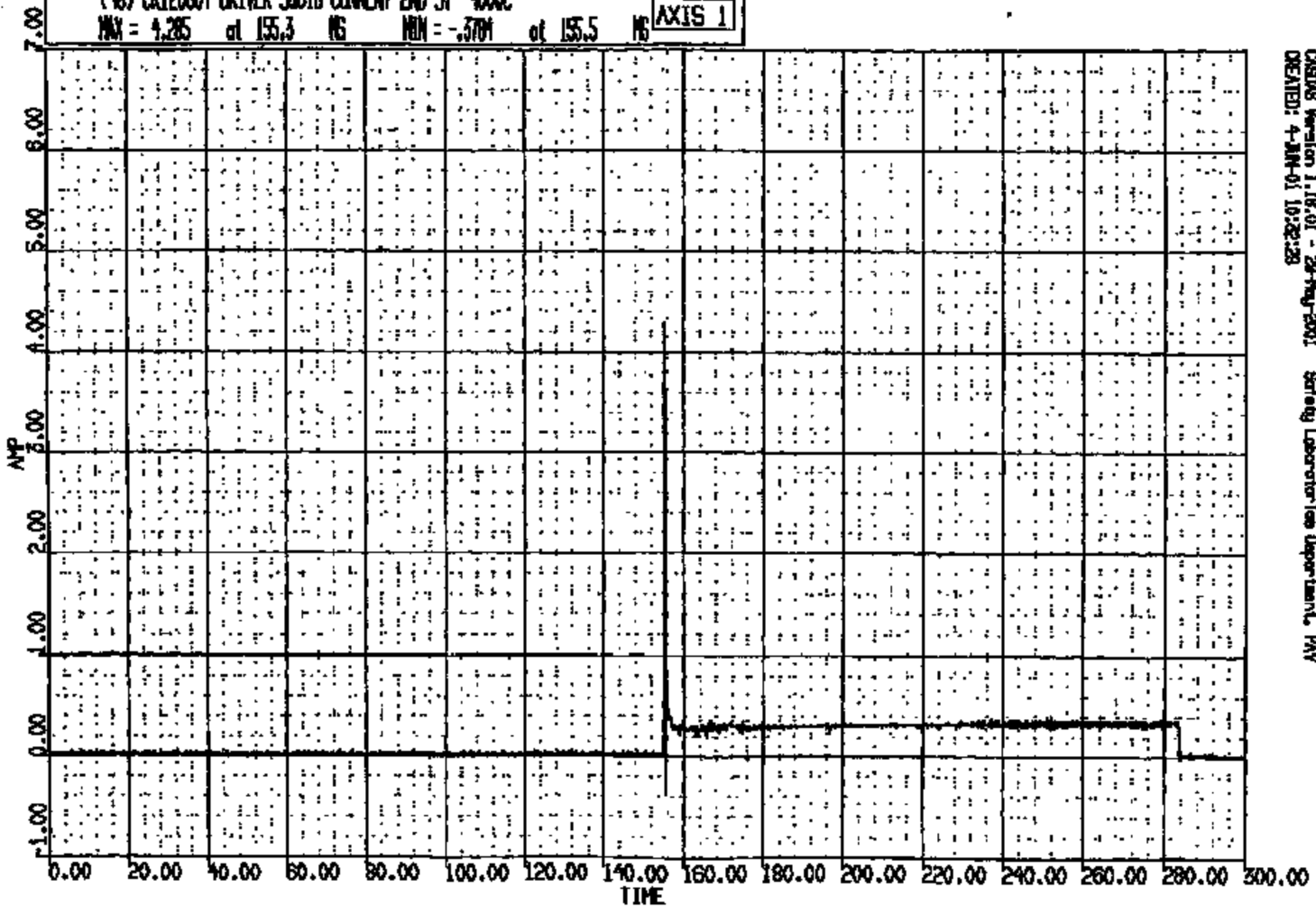


CRSIS Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:35:32

CRIS 0012060

CR #: 12060 TO: TC1830 DATE: 001108 16:31:14  
2000 D188

(40) CR12060T DRIVER SOUTH CURRENT 2ND ST 400C  
MAX = 4.285 at 155.3 MG MIN = -.3701 at 155.5 MG **AXIS 1**

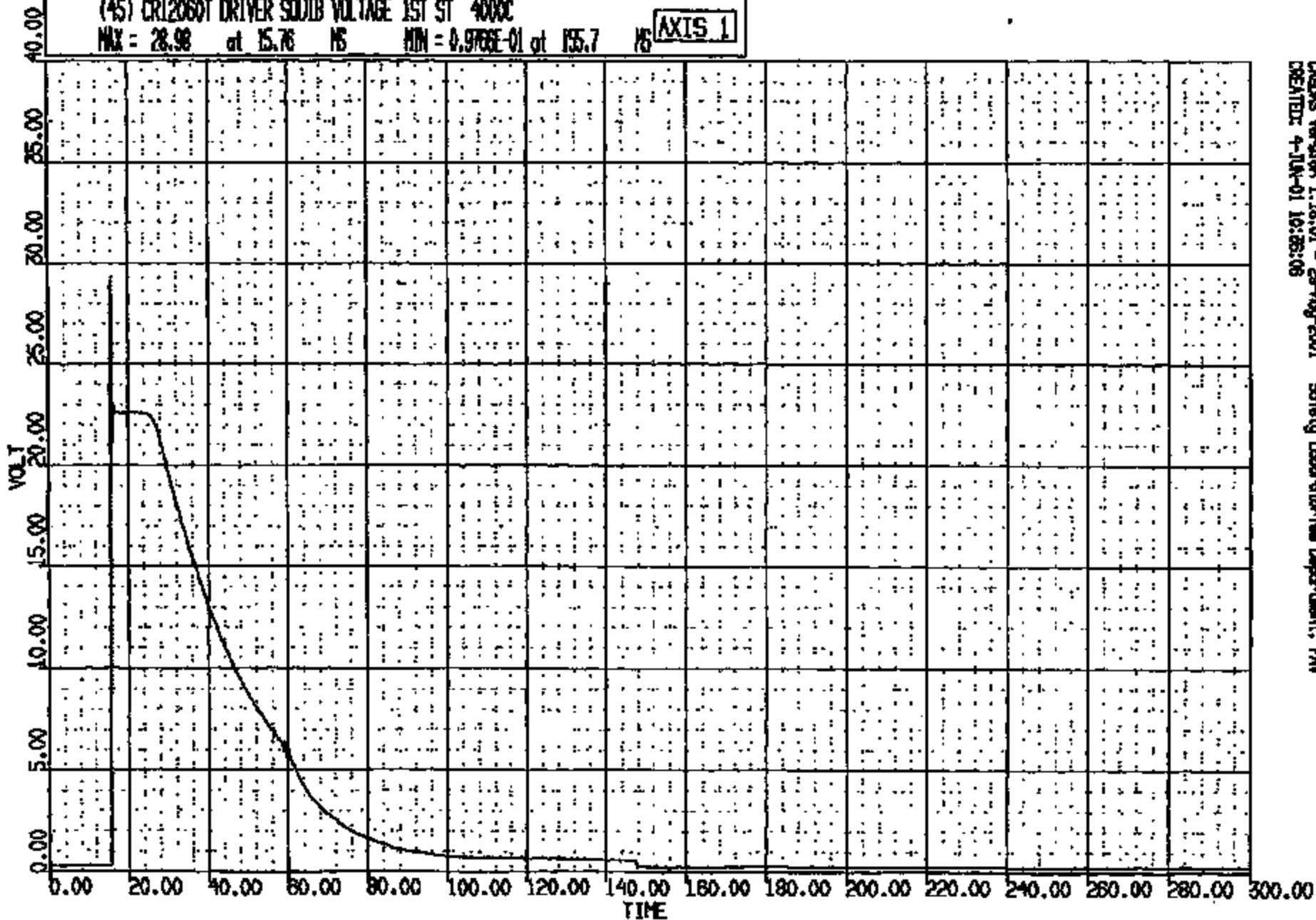


CASUS Version 1.16.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 16:28:28

CRIS 0012060

CR R: 12060 TO: TC1850 DATE: 001108 16:31:14  
2000 D188

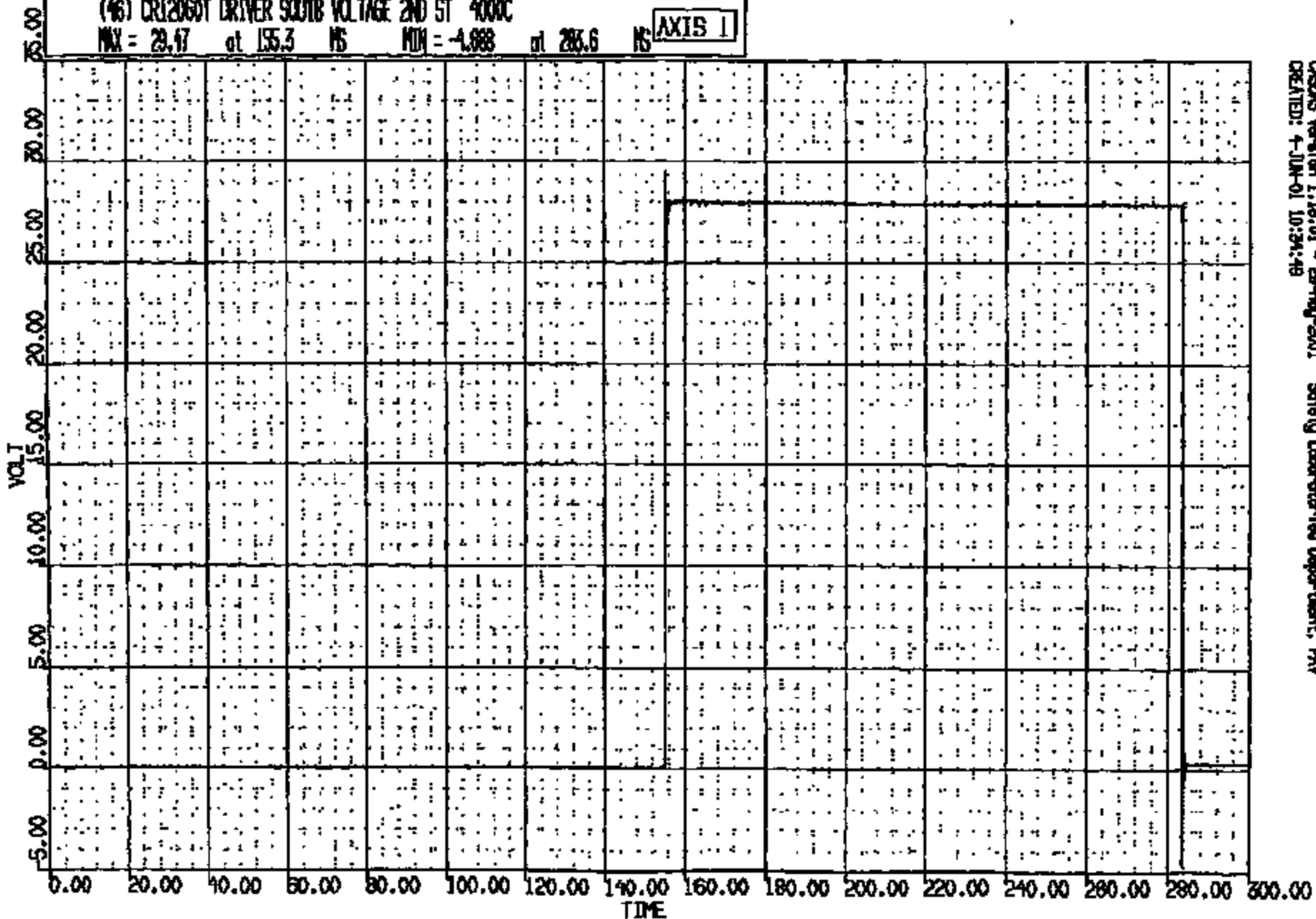
(45) CR12060T DRIVER SOLID VOLTAGE 1ST ST 400C  
MAX = 28.98 at 15.76 MS MIN = 0.9765E-01 at 135.7 MS **AXIS 1**



CRAMS Version 1.18.01 - 29-Aug-2001 Safety Laboratory/Inn Department, PAW  
CREATED: 4-JUN-01 16:28:08

CR R: 12060 TO: TC1830 DATE: 001106 18:31:14  
2000 D188

(46) CR12060T DRIVER SCOUTB VOLTAGE 2ND ST 400C  
MAX = 29.17 at 155.3 MS MIN = -4.988 at 283.6 MS **AXIS 1**

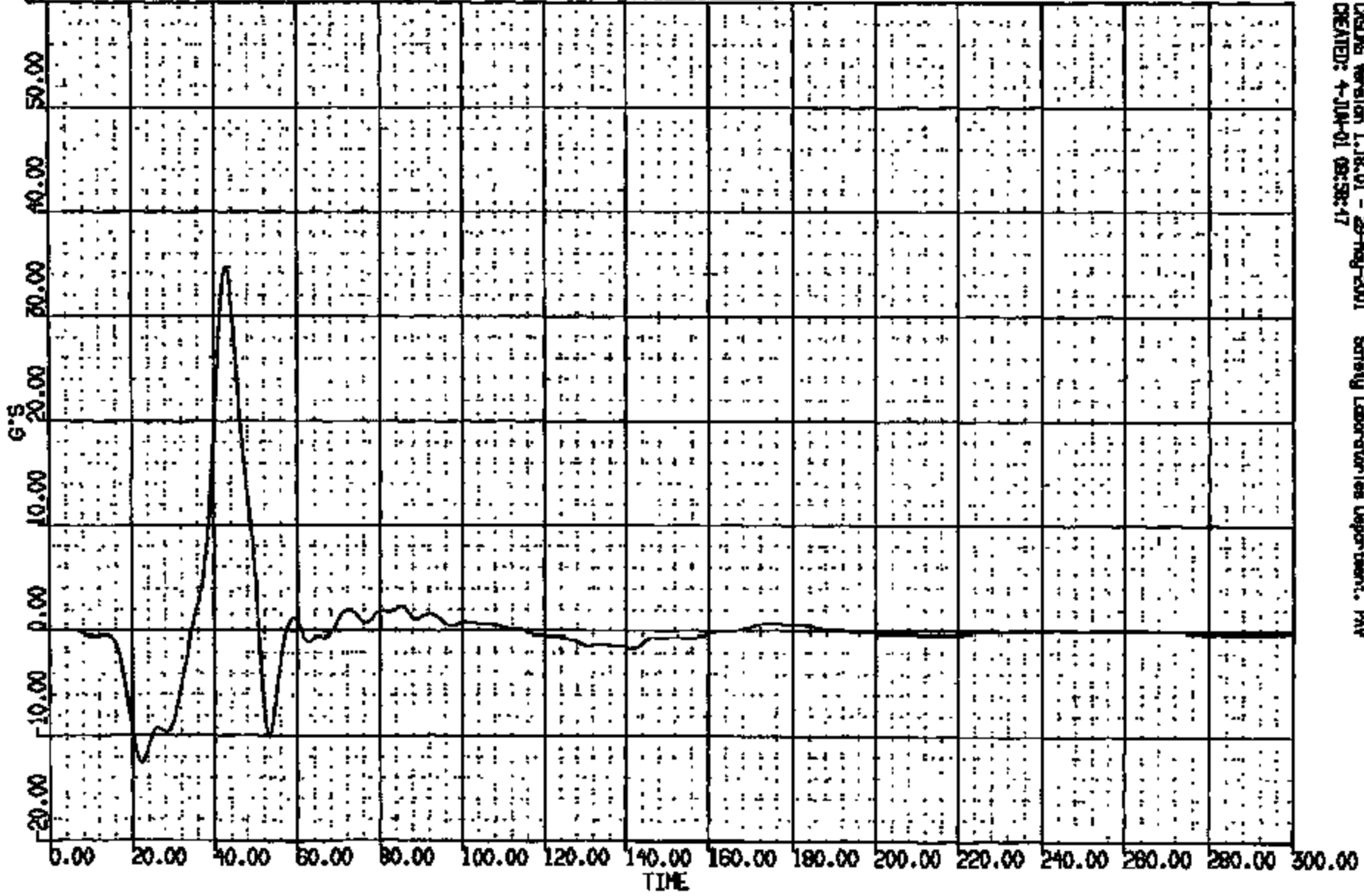


CRS0012060 Version 1.19.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:24:49

CRIS 0012060

CR R: 12060 TO: TC1630 DATE: 001106 16:31:14  
2000 D199

(80) CR12060T ENGINE TRANS BOTTOM LAT 60N  
MAX = 31.67 at 42.96 MS MIN = -12.58 at 22.32 MS **AXIS 1**

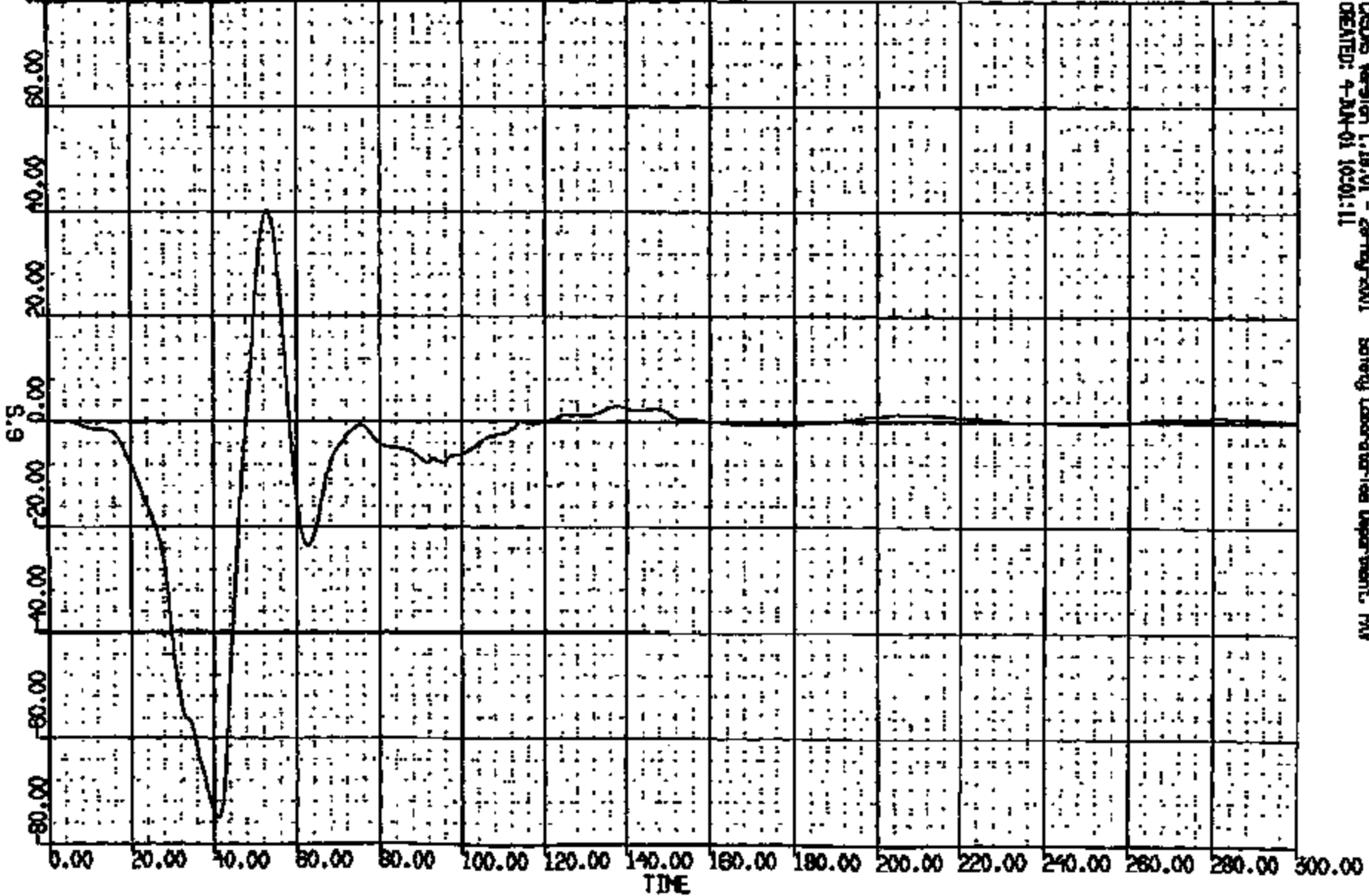


CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:58:17

CRTS 0012060

CR R: 12060 TO: TC1830 DATE: 001108 18:31:14  
2000 D186

(78) CR12060T ENGINE TRANS BOTTOM LONG GON  
MAX = 40.13 at 52.96 NG MIN = -75.17 at 41.12 NG **AXIS 1**

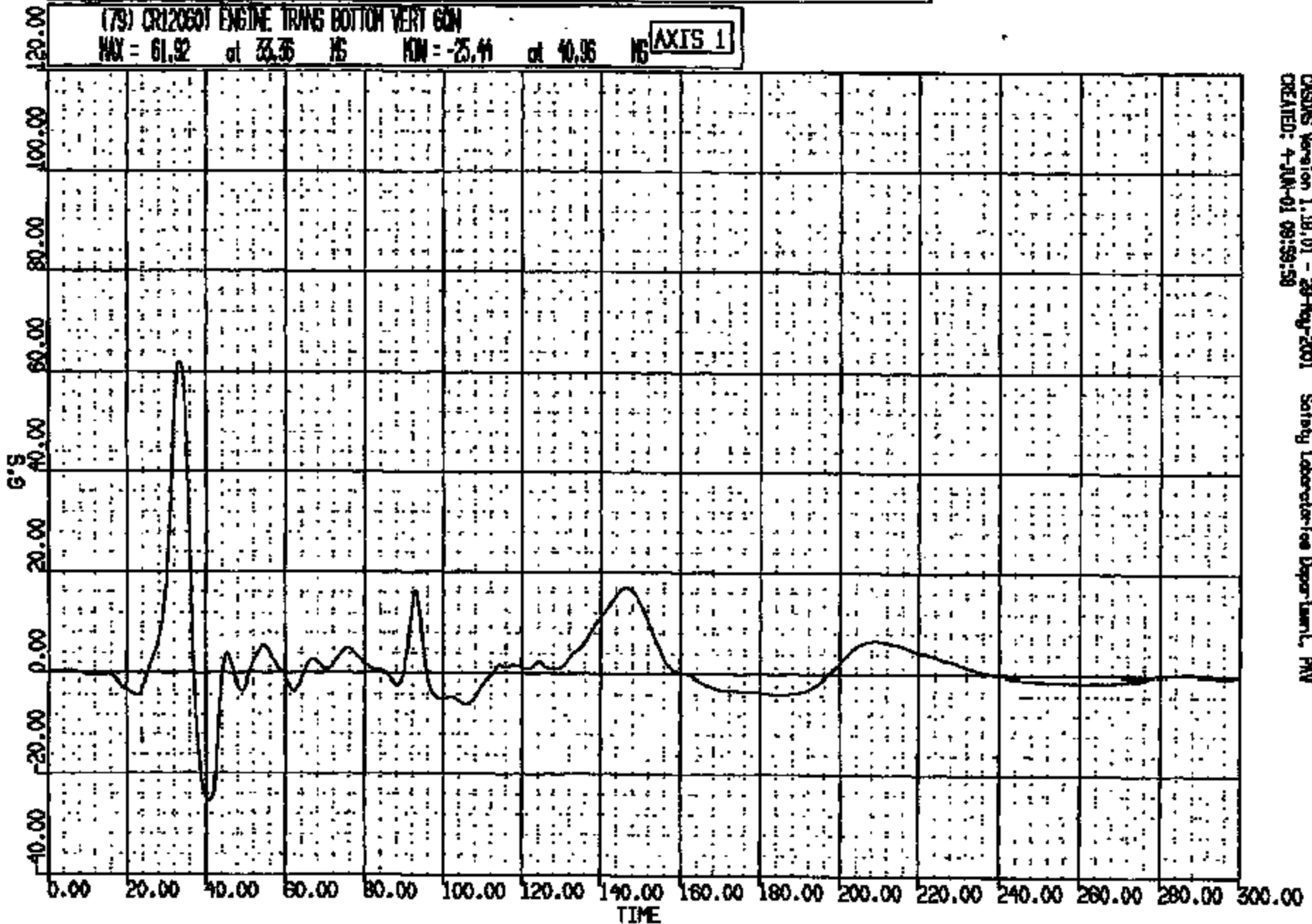


CRS05 Worksheet 1, 18, 01 - 28-May-2001 Safety Laboratories Department, PMV  
CREATED: 4-JUN-01 10:01:11

CRIS 0012060

CR R: 12060 TC: TC1830 DATE: 001106 18:31:14  
2000 0188

(79) CR12060 ENGINE TRANS BOTTOM VERT GCM  
MAX = 61.92 at 33.35 MS MIN = -25.44 at 40.95 MS **AXIS 1**



CASINS Version 1.19.01 - 29-Aug-2001 Safety Laboratory/see Department, PAV  
CREATED: 4-JUN-01 09:59:58

CRTS 0012060

CR R: 12080 TO: TC1850 DATE: 001106 18:31:14  
2000 D188

(6.) CR12060T ENGINE TRANS TOP LAT 60N

MAX = 14.93 at 46.80 MS MIN = -13.98 at 58.60 MS

AXIS 1



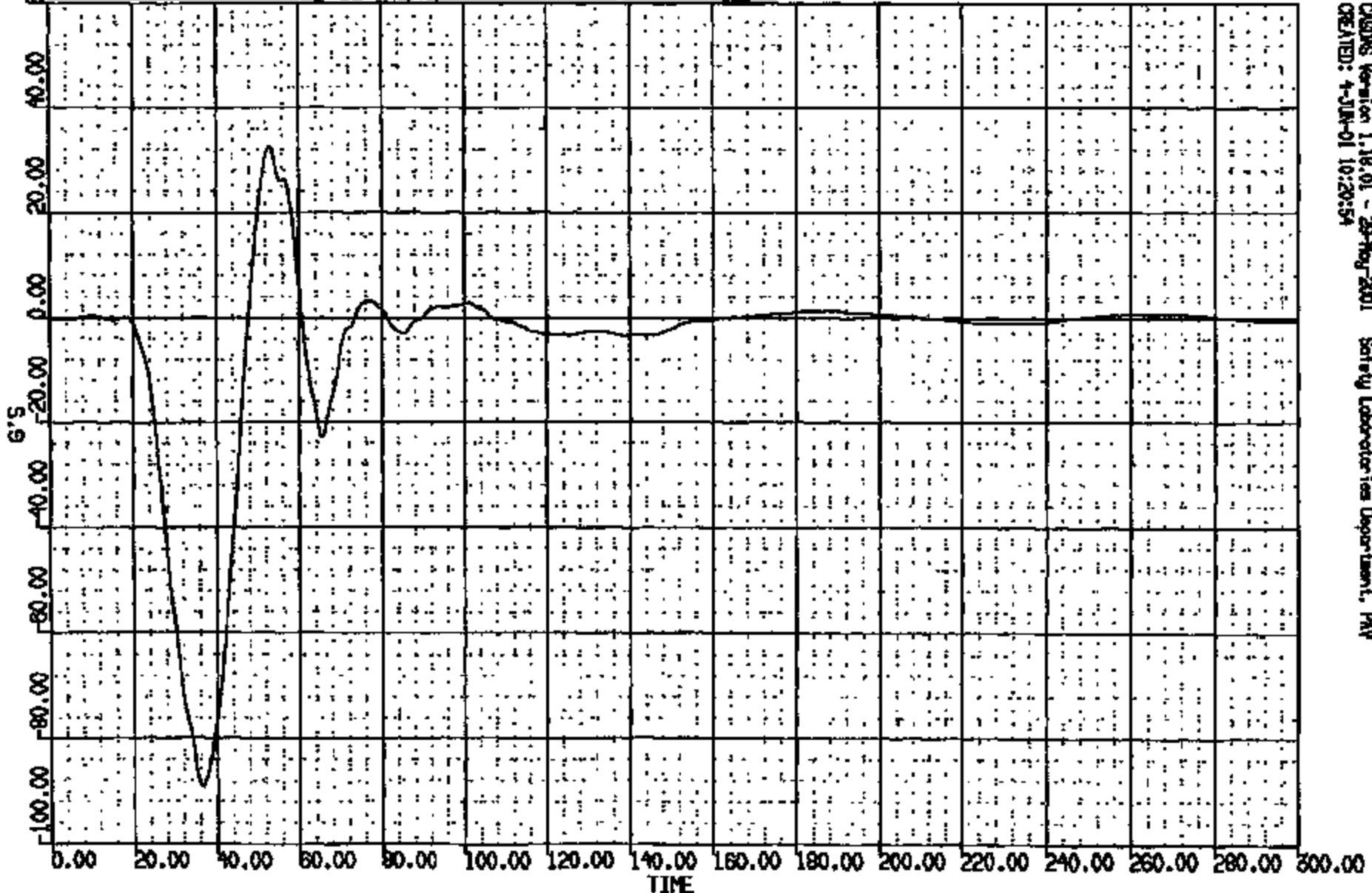
CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:18:40

CRTS 0012060



CR R: 12080 TC: TC1830 DATE: 001106 16:31:14  
2000 D188

(50) CR12060T ENGINE TRNS TOP LONG 60N  
MAX = 32.46 at 53.01 HS MIN = -89.18 at 35.40 HS **AXIS 1**

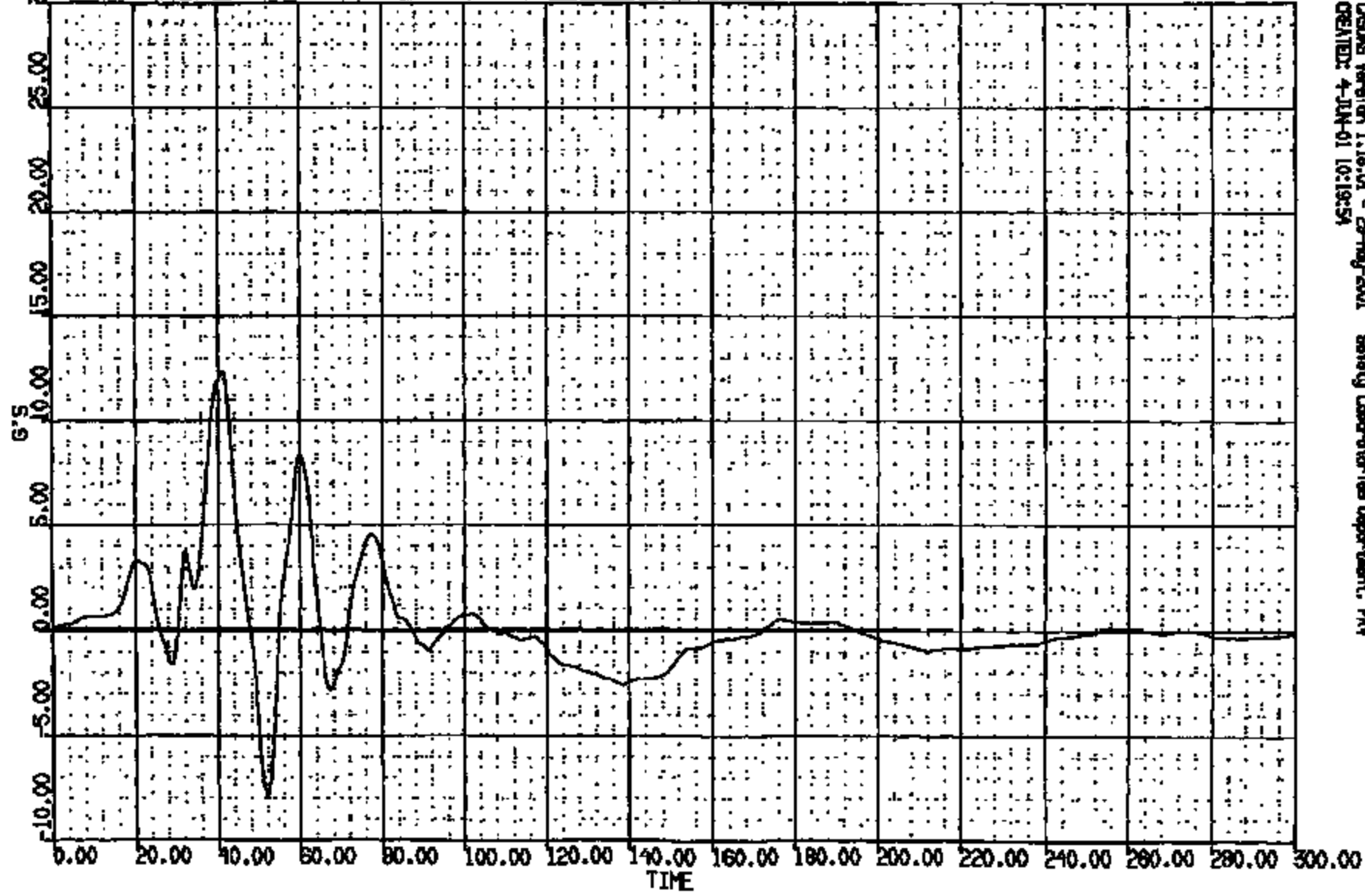


CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAV  
CREATED: 4-JUN-01 10:20:54

CRITS 0012060

R: 12060 TO: TC1820 DATE: 001108 10:31:14  
8000 D188

(60) CR12060T ENGINE TRANS TOP VERT GON  
MAX = 12.37 at 41.12 MS MIN = -7.928 at 51.92 MS **AXIS 1**

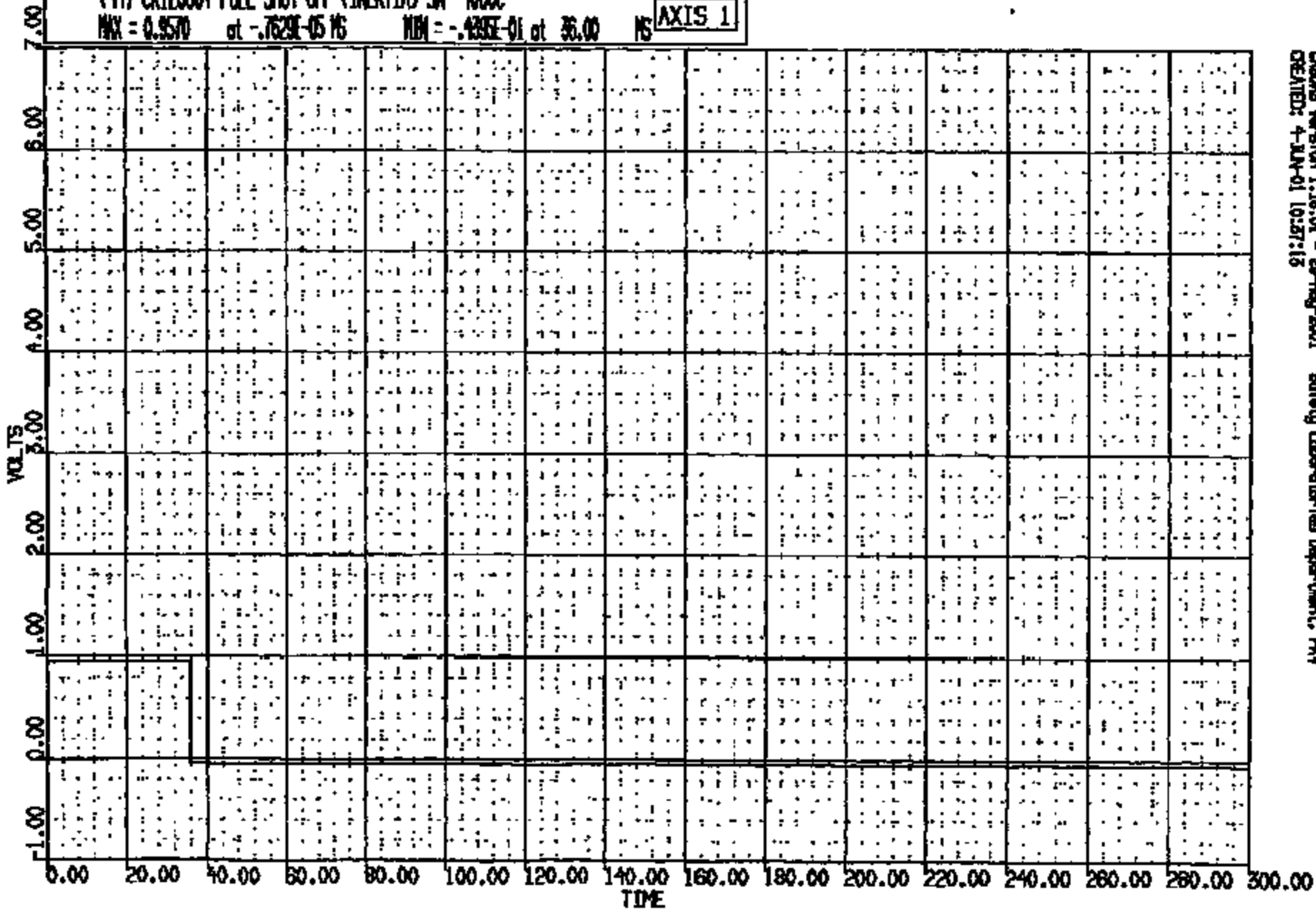


CRSMS Version 1.19.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:19:54

CRTS 0012060

CR #: 12060 TO: TC1820 DATE: 001108 18:51:14  
2000 D188

(4) CR12060 FUEL SHUT OFF (INERTIA) SH 4000  
MAX = 0.9570 at -.7629E-05 MS MIN = -.435E-01 at 36.00 MS **AXIS 1**

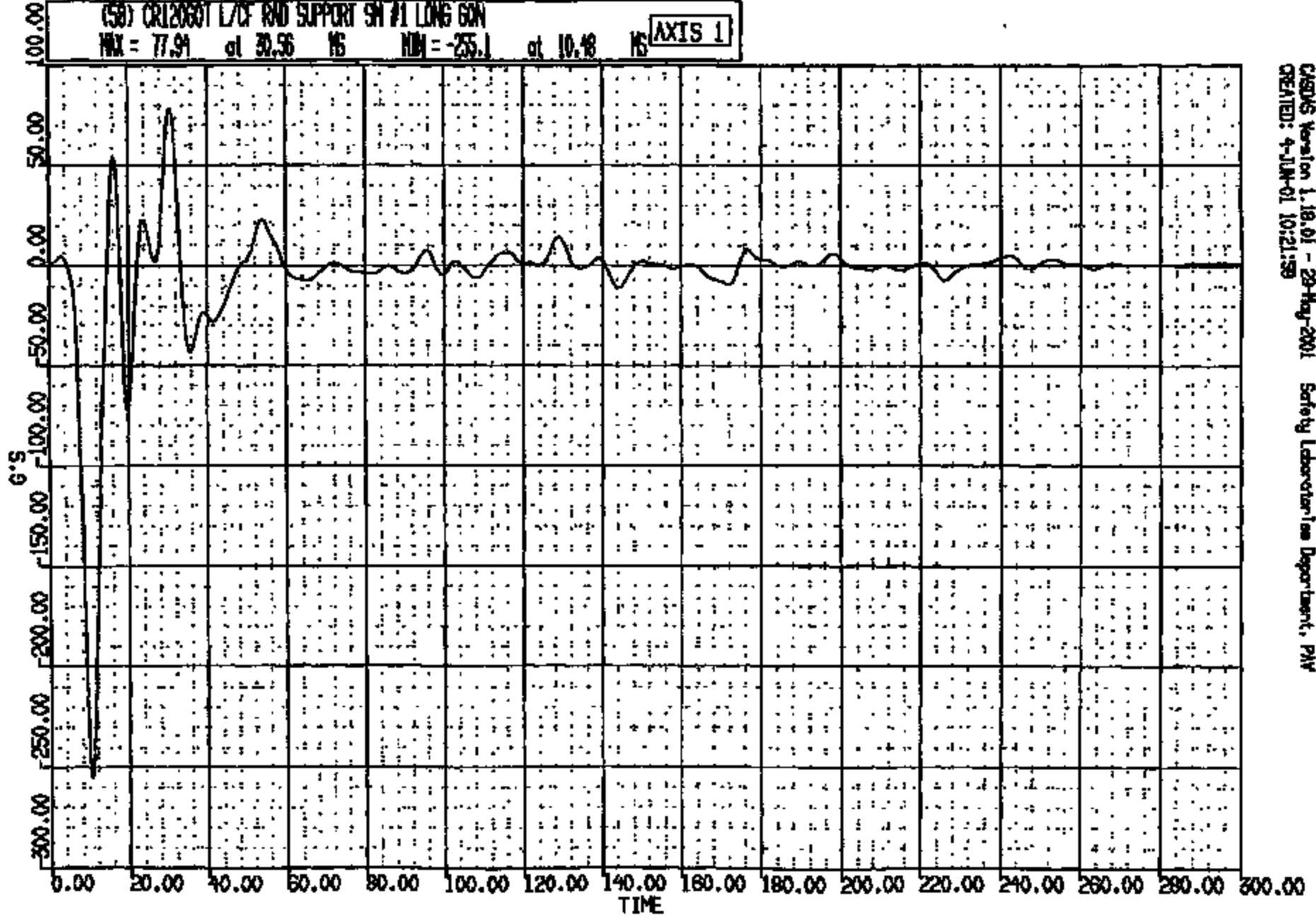


CRSIS Version 1.18.01 - 20-May-2001 Safety Laboratories Department, PMW  
CREATED: 4-JUN-01 10:27:15

CRTS 0012060

CR R: 12060 TO: TC1820 DATE: 001108 18:31:14  
2000 D188

(50) CR12060 L/CF RAD SUPPORT SH #1 LONG GON  
MIN = 77.91 at 30.56 MS MAX = -255.1 at 10.18 MS **AXIS 1**



CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNY  
CREATED: 4-JUN-01 10:21:59

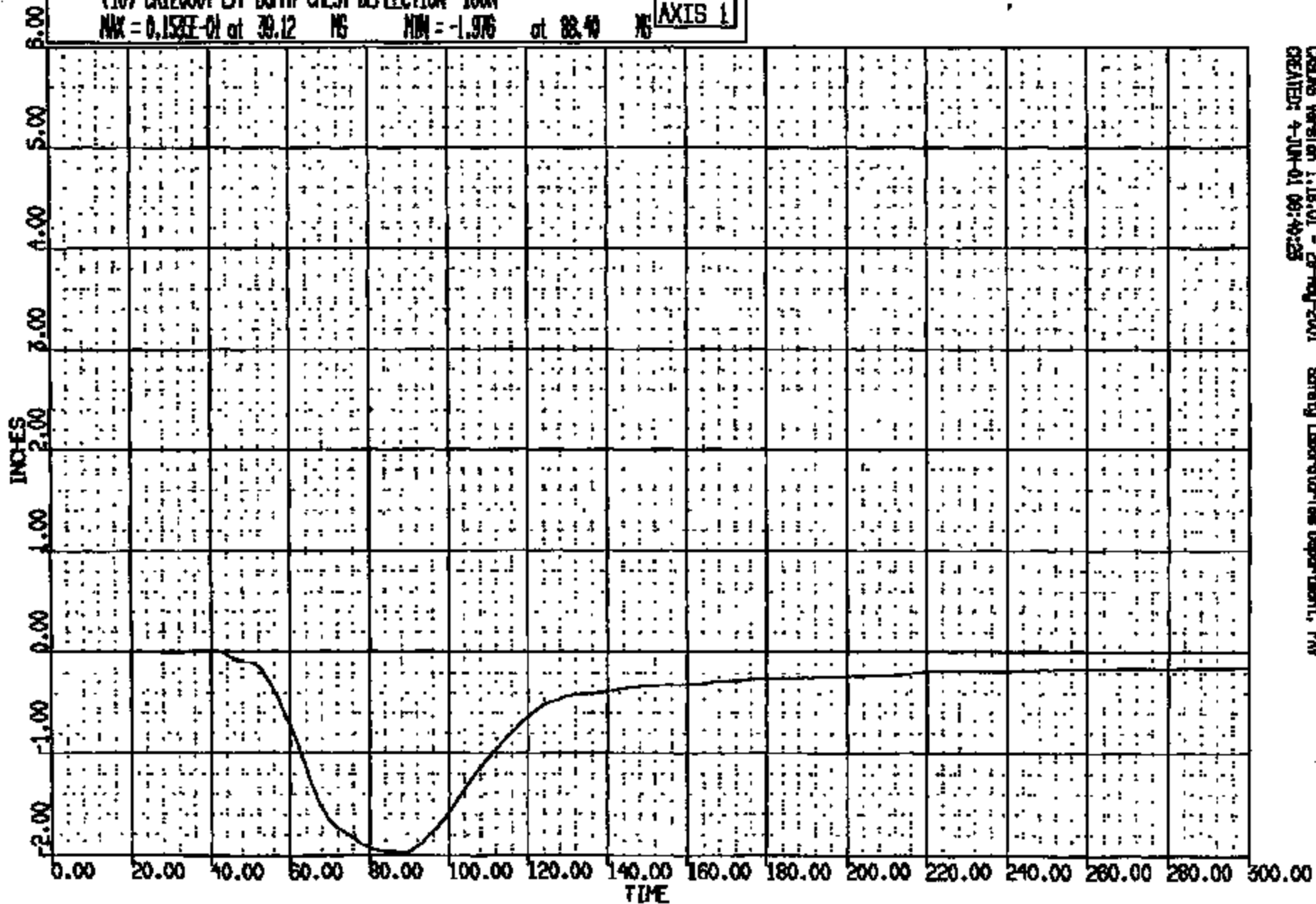
CRIS 0012060

CR R: 12060 TO: TC1250 DATE: 001108 18:31:14  
8000 DISG

(10) CR120601 L/F DUMMY CHEST DEFLECTION 180N

MAX = 0.153E-01 at 39.12 MS MIN = -1.976 at 88.40 MS

AXIS 1

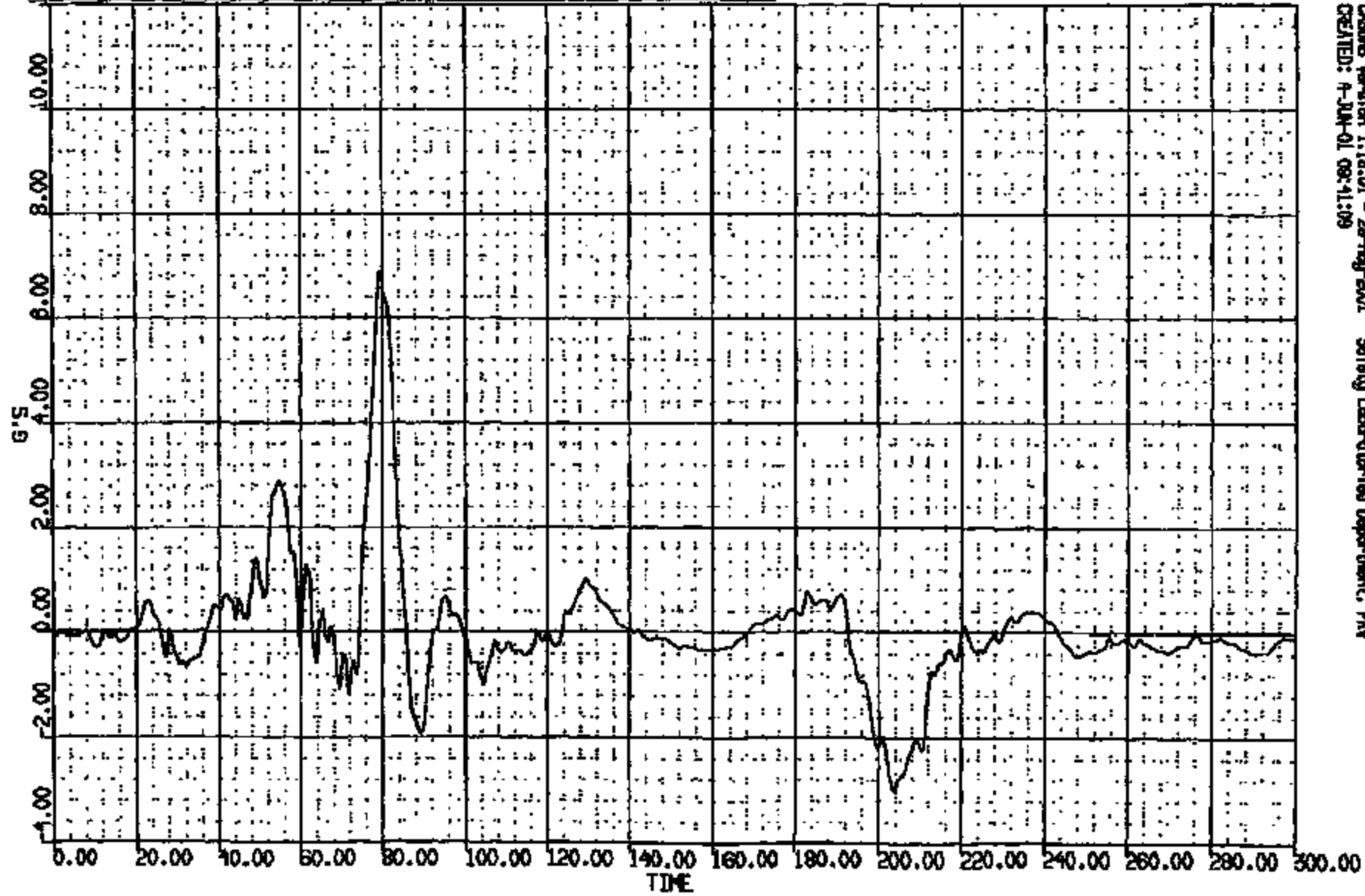


CRS08 Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:49:23

CRIS 0012060

CR R: 12060 TO: TC1850 DATE: 001108 16:31:14  
2000 D186

(9) CR12060 L/F DUMMY CHEST LAT 180N  
MAX = 6.894 at 79.52 MS MIN = -2.994 at 203.8 MS **AXIS 1**

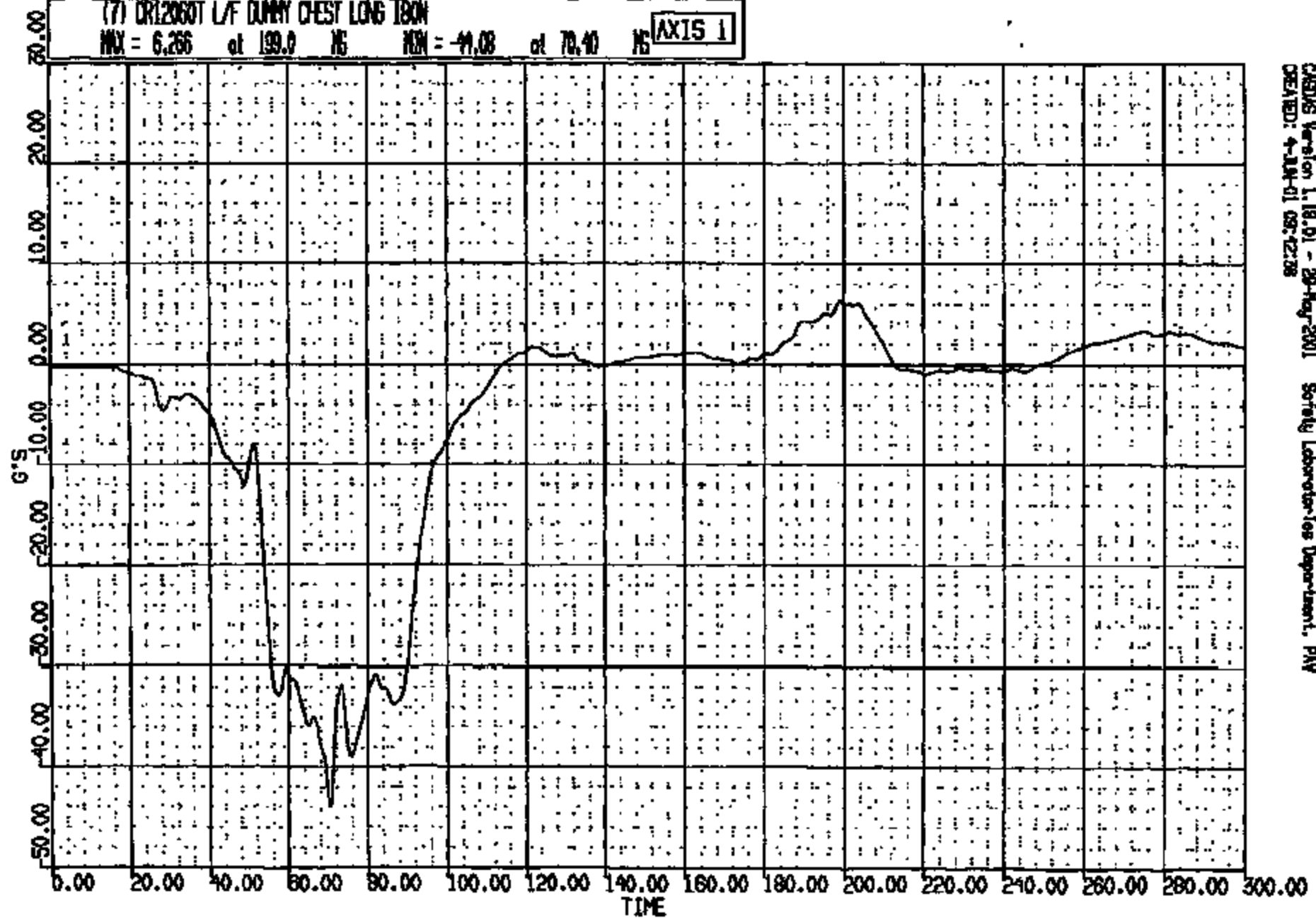


CRSNG Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 08:41:09

CRTS 0012060

CR #: 12090 TO: TC1950 DATE: 001108 16:31:14  
2000 D188

(7) DR120601 L/F DUMMY CHEST LONG 180N  
MAX = 6.266 at 199.0 NS MIN = -41.08 at 70.40 NS **AXIS 1**

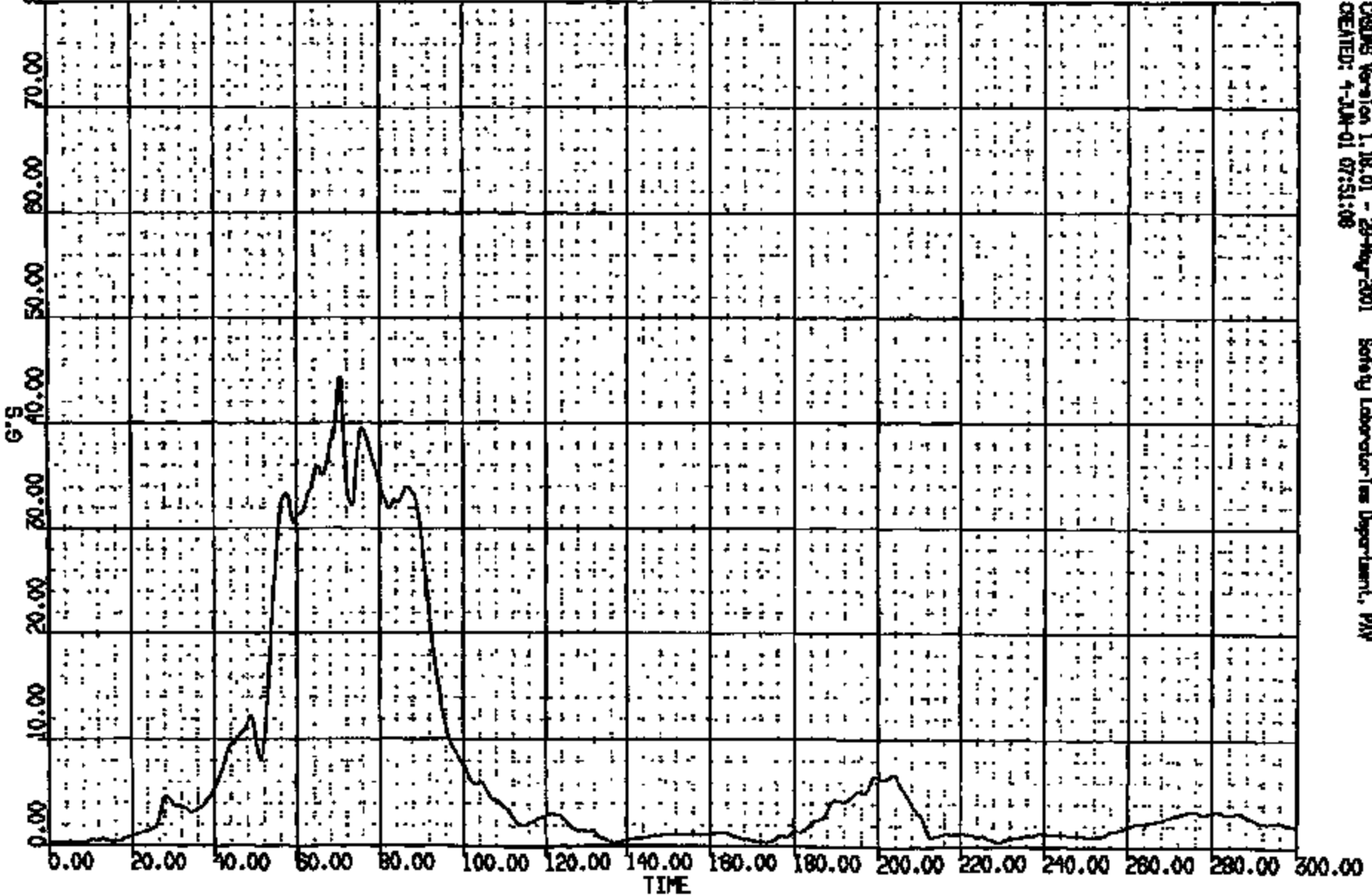


CRSIS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAV  
CREATED: 4-JUN-01 09:42:28

CRTS 0012060

CR #: 12060 TO: TC1830 DATE: 001108 18:31:14  
R000 D188  
CUMDUR = 59.277 Duration time = 2.9879

(1001) CR12060T L/F DUMMY CHEST RES 180N  
MAX = 41.35 at 70.40 MS MIN = 0.2200 at 135.9 MS **AXIS 1**



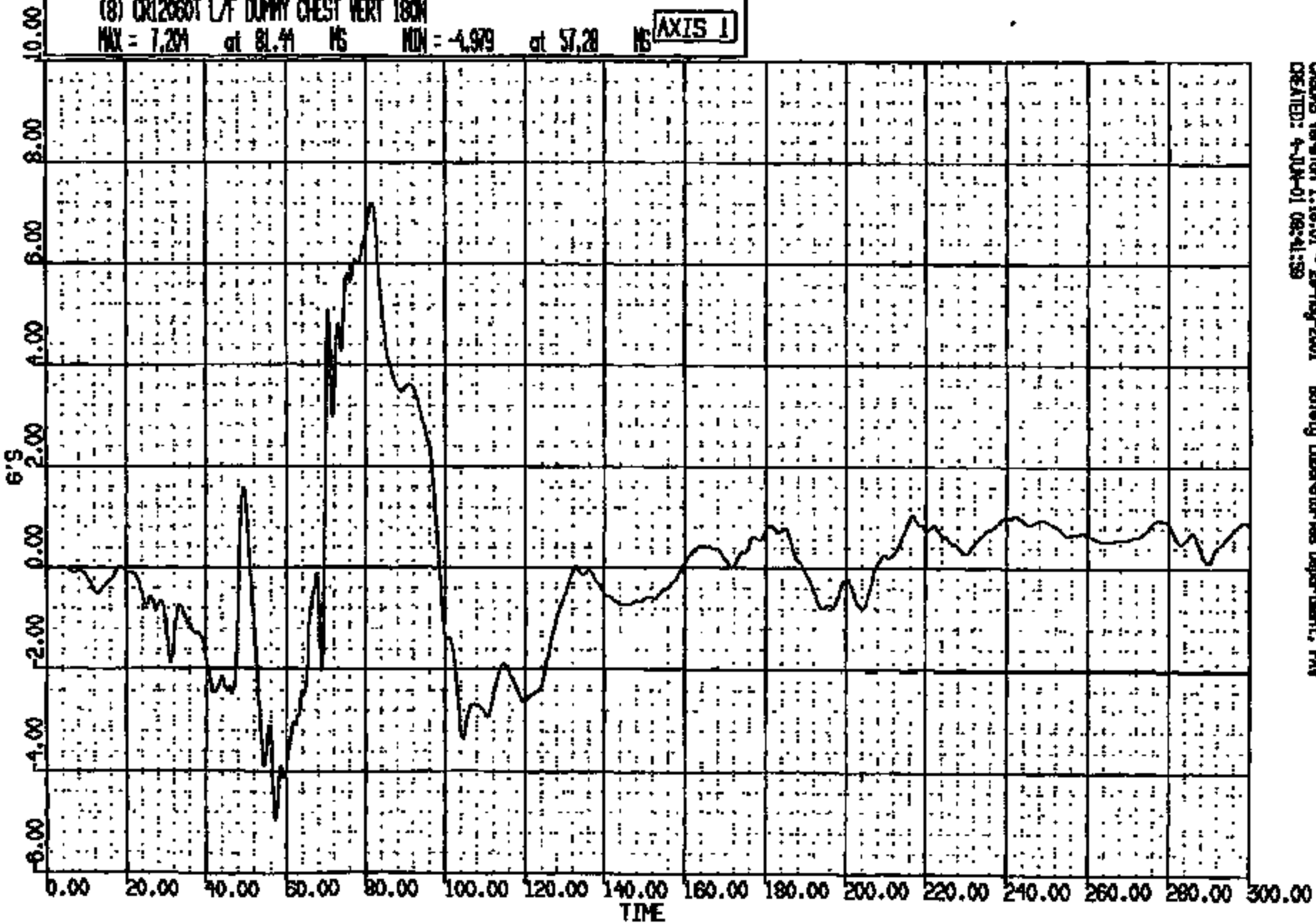
CRS06 Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 07:51:08

CRTS 0012060



CR R: 12060 TO: TC1850 DATE: 001108 10:31:14  
2000 DISB

(8) CR12060T L/F DUMMY CHEST VERT 180W  
MAX = 7.294 at 81.41 MS MIN = -4.979 at 57.28 MS **AXIS 1**



CAEWS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 08:41:59

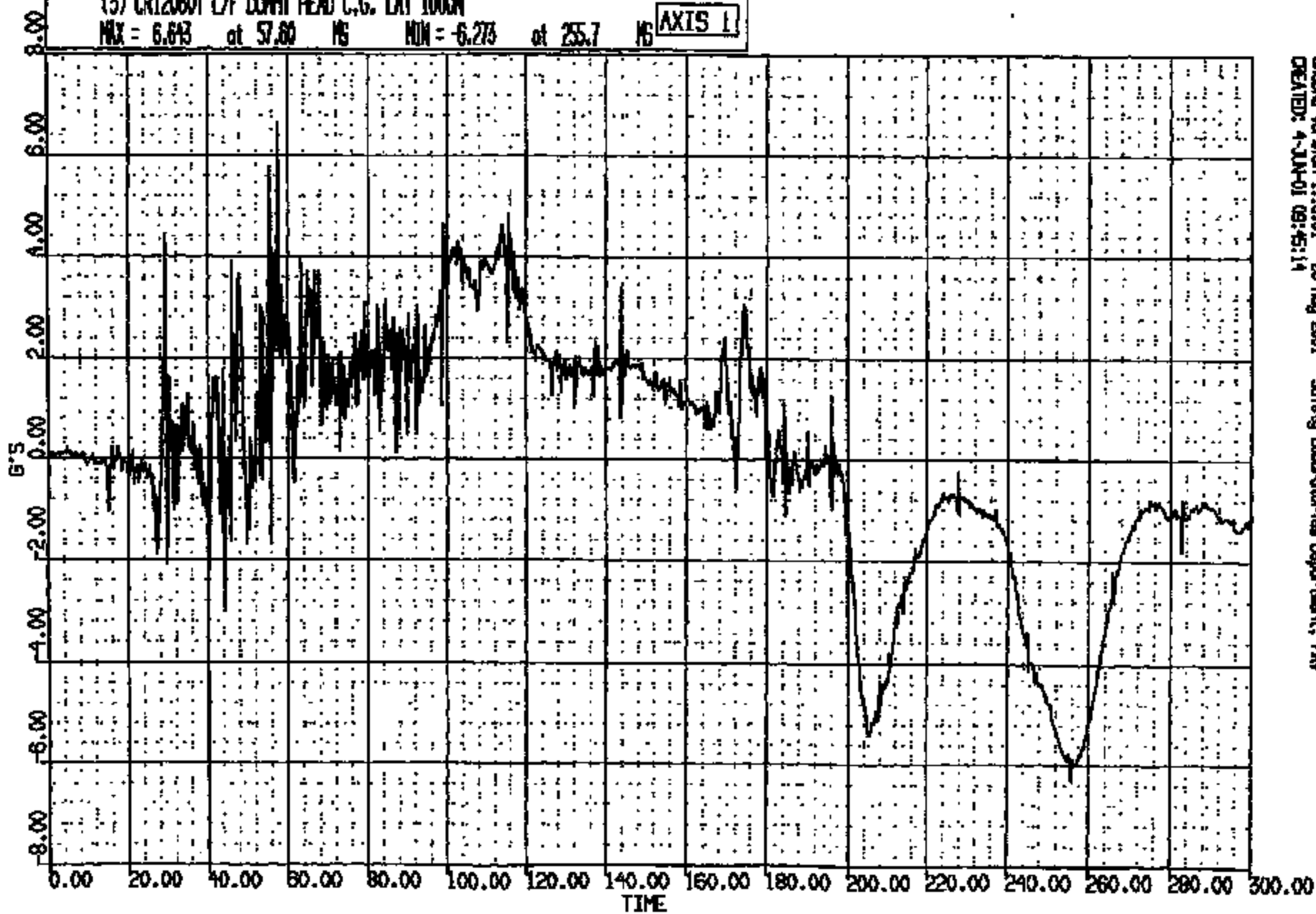
CRTS 0012060

CR R: 12060 TO: TC1850 DATE: 001106 18131:14  
2000 D198

(3) CR12060T L/F DUMMY HEAD C.G. LAT 100KN

MAX = 6.643 at 57.00 MS MIN = -6.273 at 255.7 MS

AXIS 1

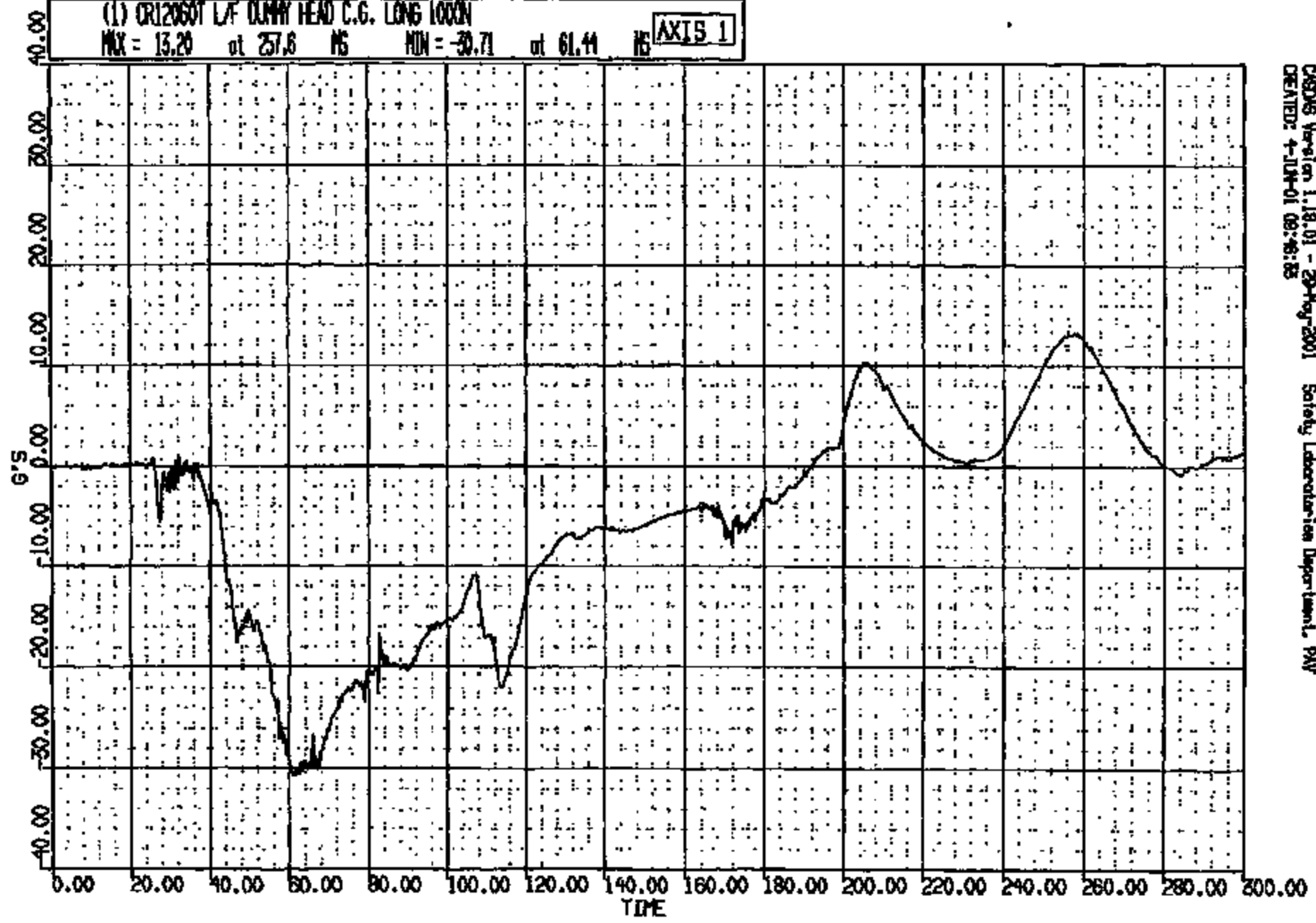


CASDS Version 1.18.01 - 28 May 2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:45:14

CRTS 0012060

CR R: 12060 TO: TC1830 DATE: 001106 16:31:14  
2000 DISB

(1) CR120601 L/F DUMMY HEAD C.G. LONG 1000N  
MAX = 13.20 at 257.6 MS MIN = -30.71 at 61.44 MS **AXIS 1**

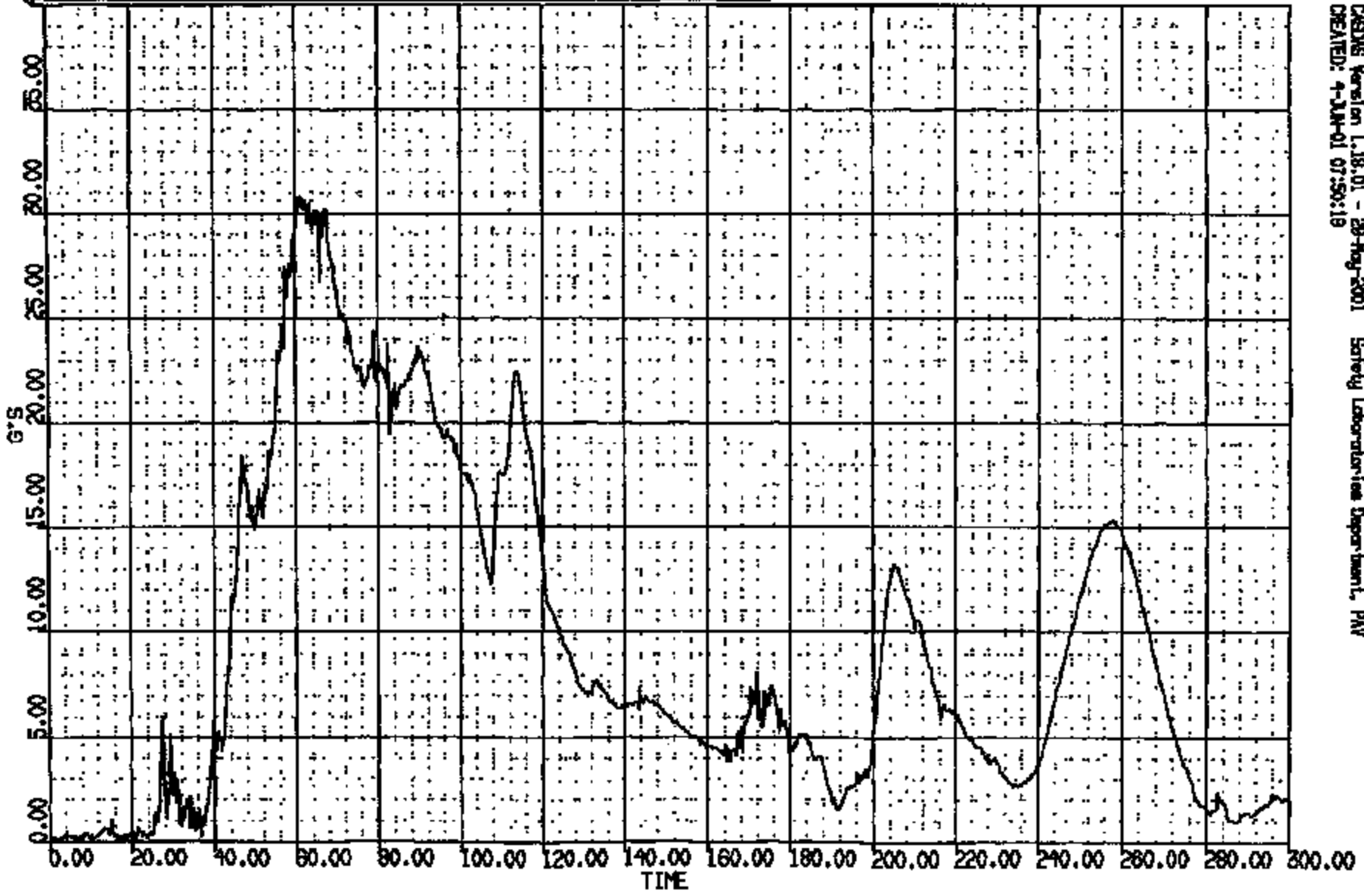


CASDS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNV  
CREATED: 4-JUN-01 09:46:35

CRTS 0012060

12060 TO: TC1830 DATE: 001108 18:31:14  
 D1888  
 1100 DUR: 240.0 T1/T2: 48.4 // 120  
 1100 DUR: 88.0 T1/T2: 55.4 // 81  
 89 DUR: 18.0 T1/T2: 87.8 // 78

(10005) CR12060T L/F DUMMY HEAD C.G. RES 1000N  
 MAX = 30.74 at 61.44 MS MIN = 0.477E-01 at 10.48 MS **AXIS 1**

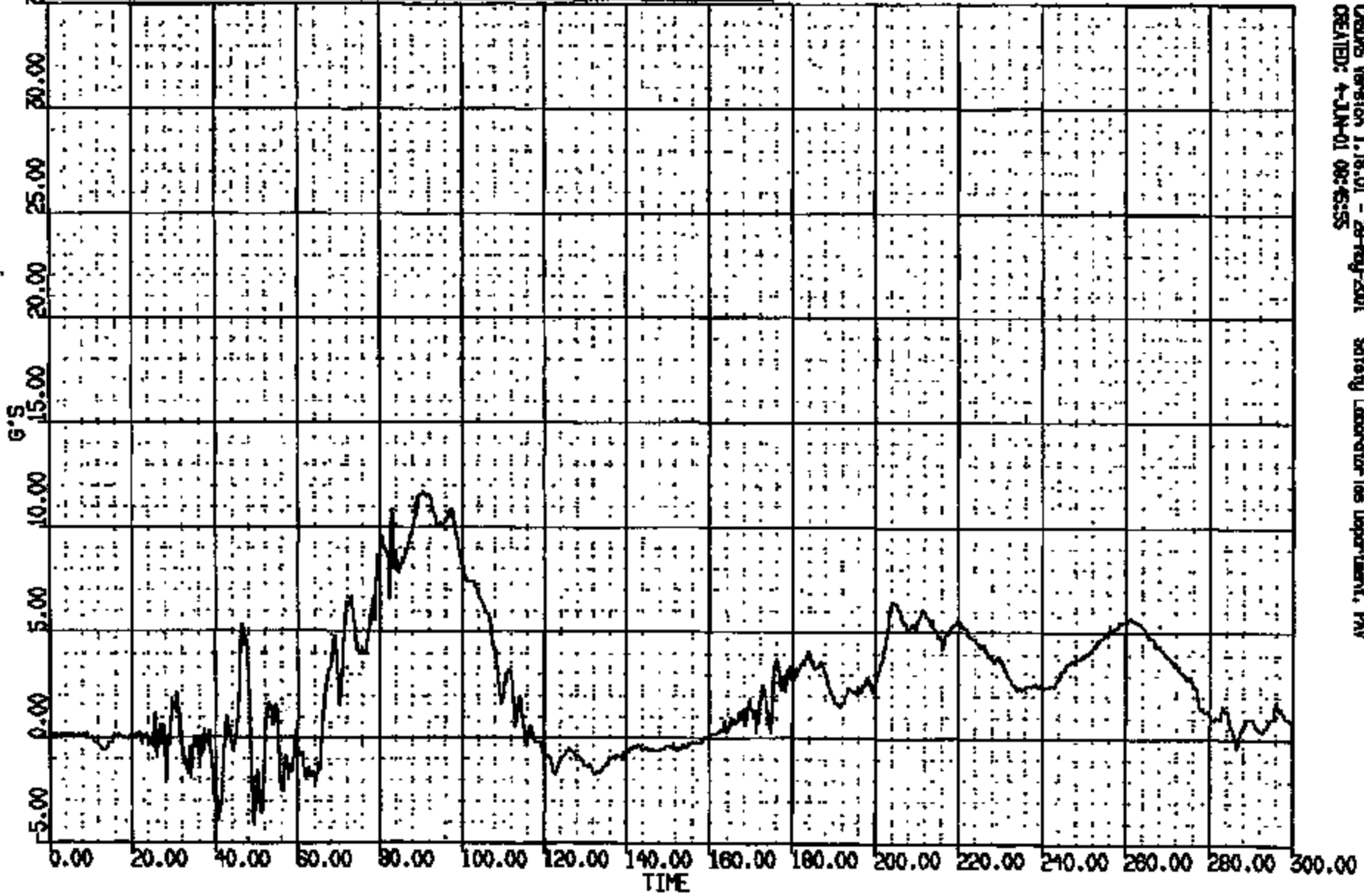


CASRS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
 CREATED: 4-JUN-01 07:56:19

CR1S 0012060

CR R: 12060 TO: TC1930 DATE: 001108 18:51:17  
2000 D188

(2) CR12060T L/F DUMMY HEAD C.G. VERT 1000N  
MAX = 11.74 at 80.56 MS MIN = -1.138 at 49.36 MS AXIS 1

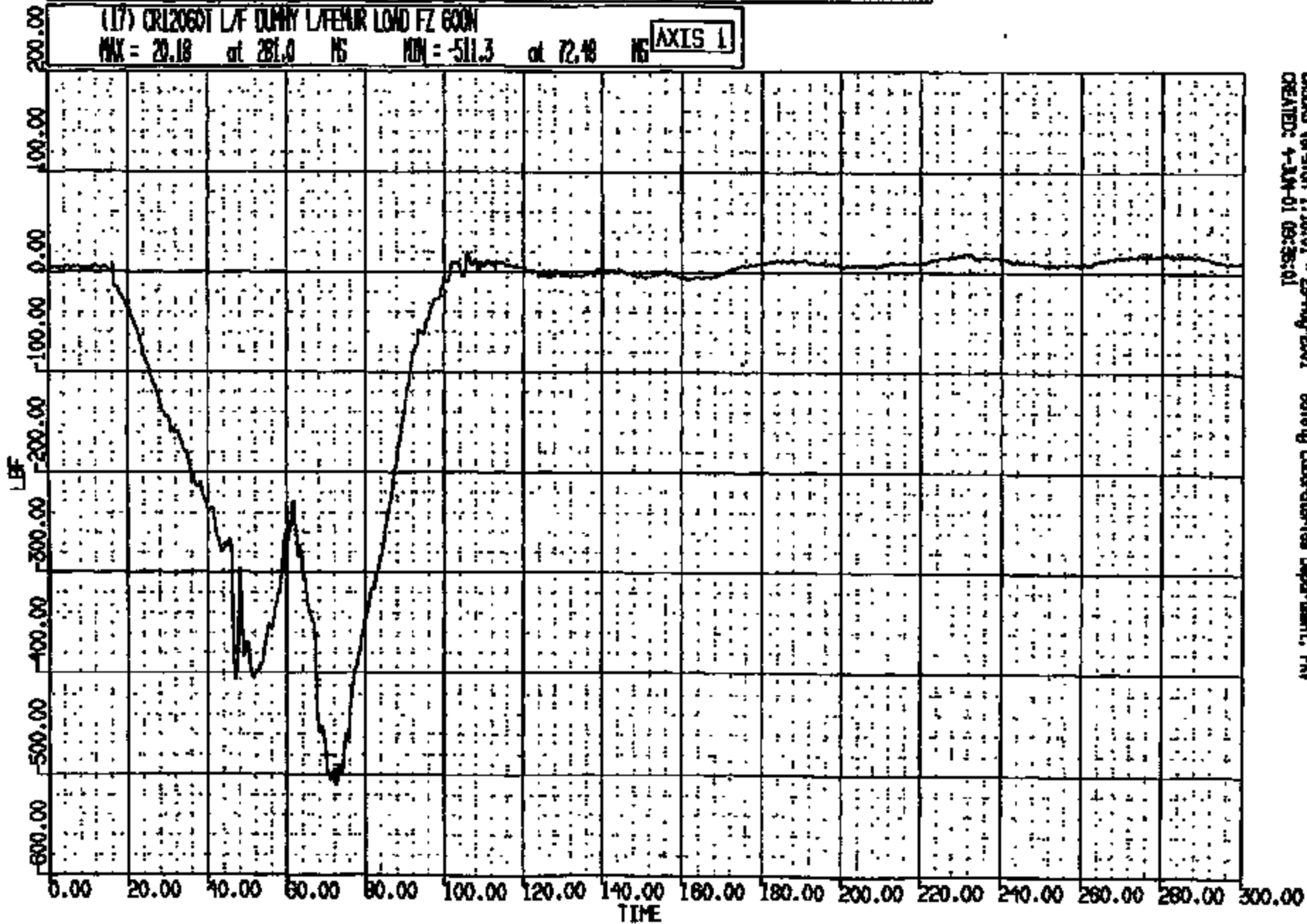


CASYS Version 1.18.01 - 28-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 08:45:55

CRTS 0012060

01 R: 12050 TO: TC1250 DATE: 001106 15:31:14  
N000 D188

(17) CR120601 L/F DUMMY L/FEMUR LOAD FZ 600N  
MAX = 20.18 at 281.0 NS MIN = -511.3 at 72.48 NS **AXIS 1**



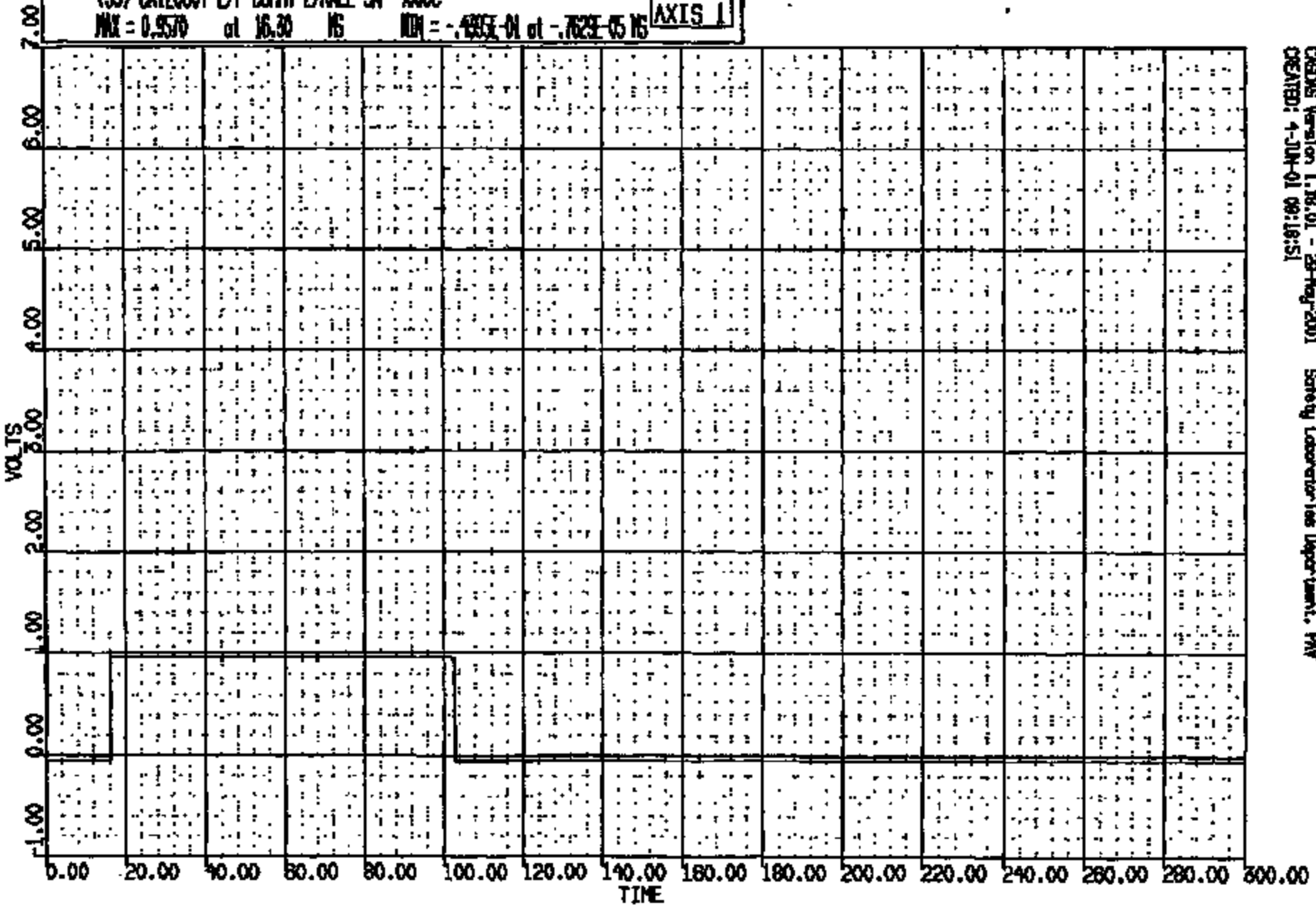
CRS06 Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:38:01

CRTS 0012060

CM R: 19080 TO: TC1830 DATE: 001108 16:31:14  
2000 D188

(39) CR12060T L/F DUMPY L/KNEE SN 400C  
MAX = 0.9570 at 16.30 MS MIN = -.495E-01 at -.762E-05 MS

AXIS 1

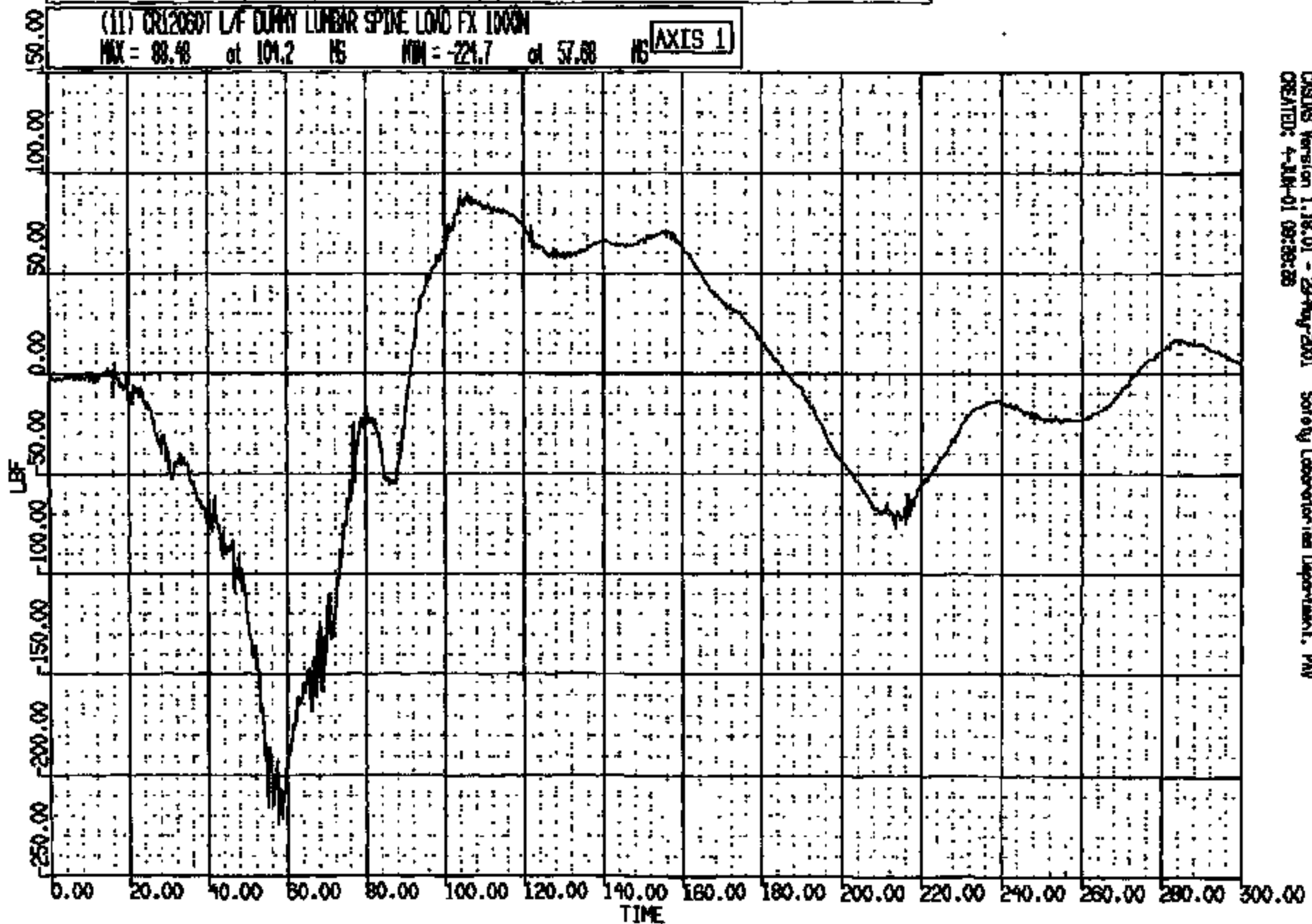


CRS05 Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNY  
CREATED: 4-JUN-01 09:18:51

CRIS 0012060

CR R: 12060 TO: TC1630 DATE: 001106 16:31:14  
2000 D198

(11) CR12060T L/F DUMMY LUMBAR SPINE LOAD FX 1000N  
MAX = 88.48 at 104.2 MS MIN = -221.7 at 57.88 MS **AXIS 1**

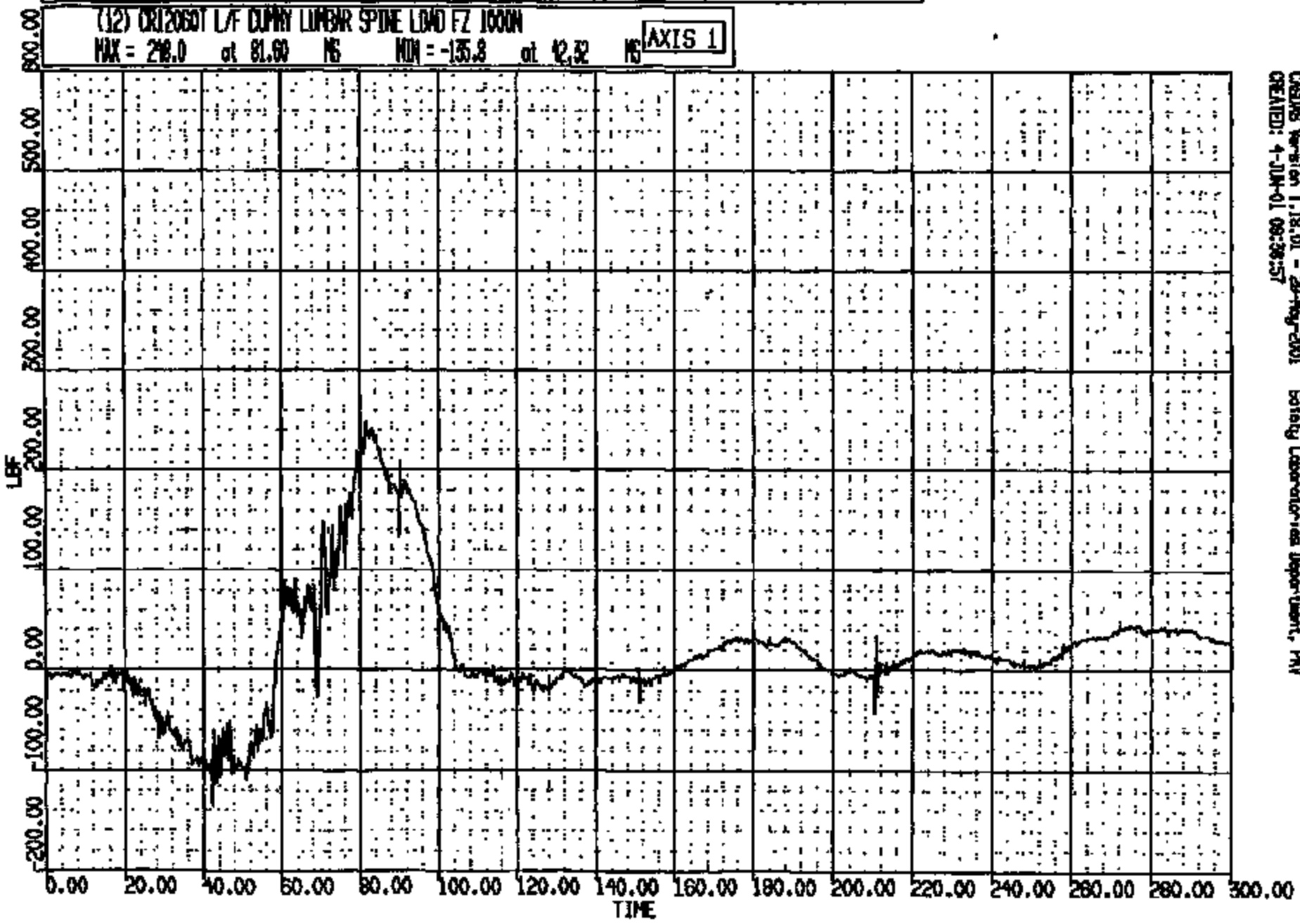


CRSDS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:38:38

CR12060T



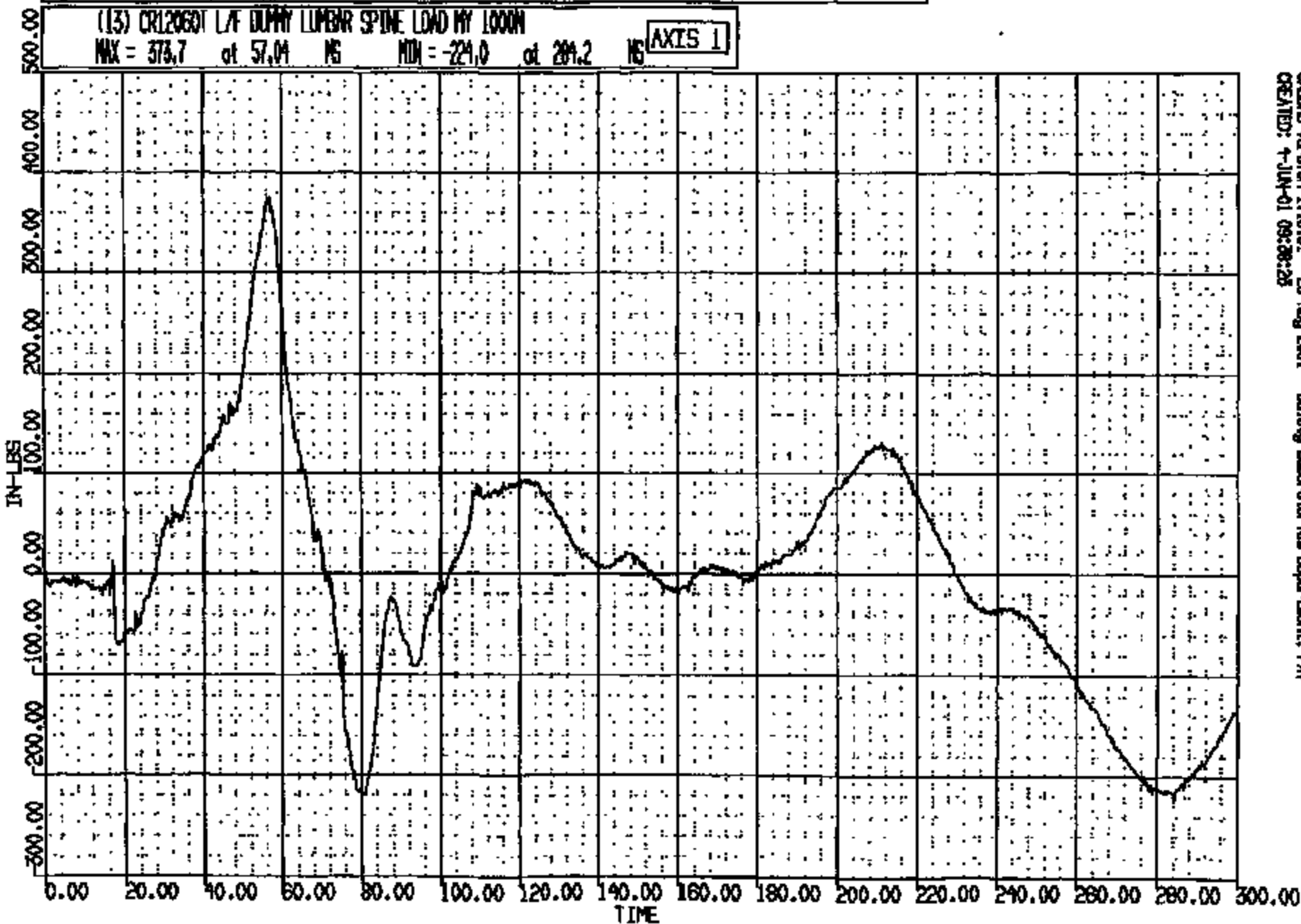
CA R: 12060 TO: TC1630 DATE: 001106 16:51:14  
2000 D198



CRSIS Version 1.19.01 - 29-May-2001 Safety Laboratories Department, PAI  
CREATED: 4-JUN-01 08:38:57

CRIS 0012060

CR R: 12060 TD: TC1850 DATE: 001108 16:31:14  
2000 D188

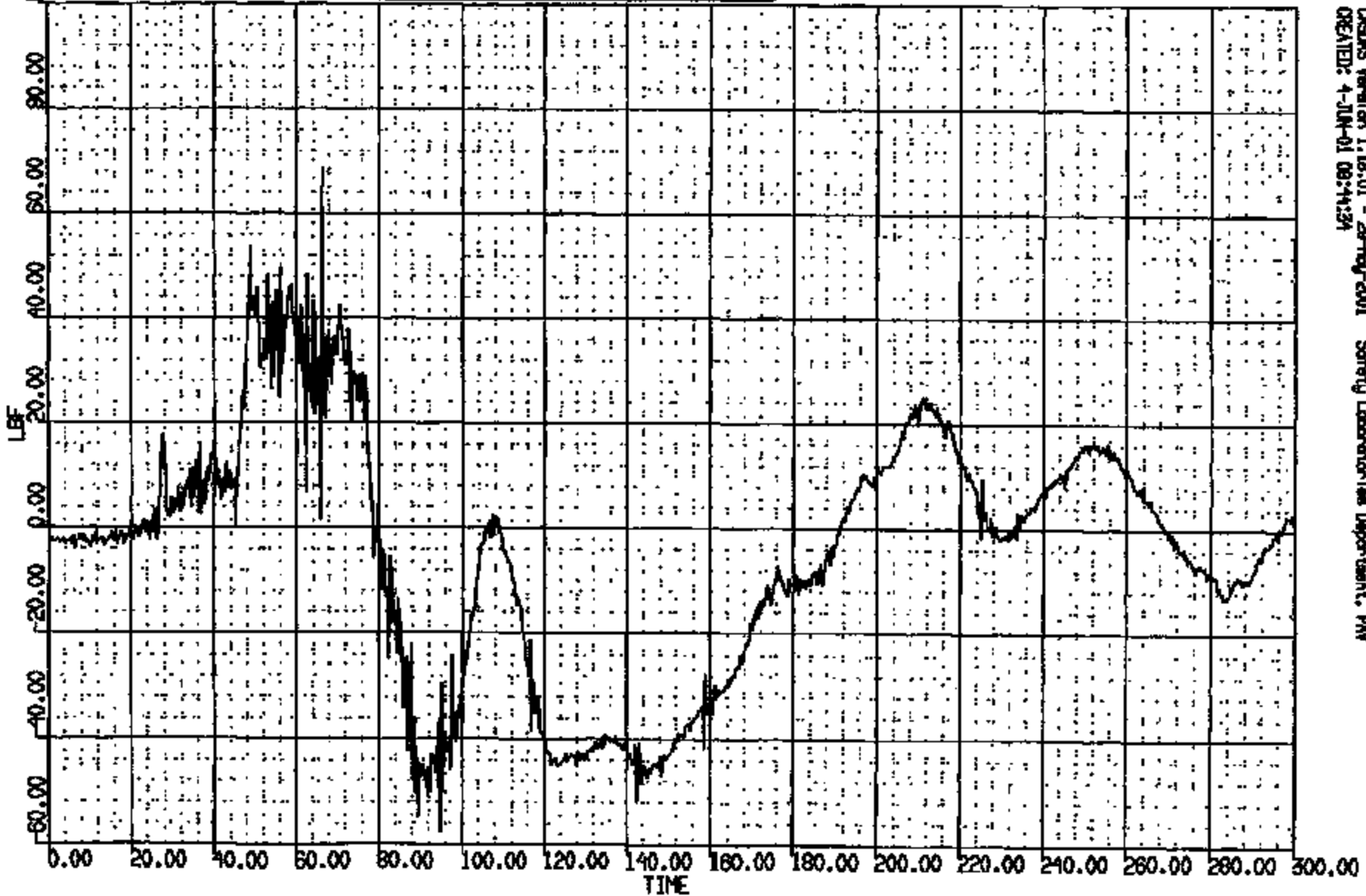


CASIMS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:38:25

CRTS 0012060

CR R: 12060 TO: TC1250 DATE: 001109 16:31:14  
2000 D198

(4) CR12060 L/F DUMMY NECK UPPER LOAD FX 1000N  
MAX = 68.85 at 66.21 MS MIN = -57.72 at 91.00 MS **AXIS 1**

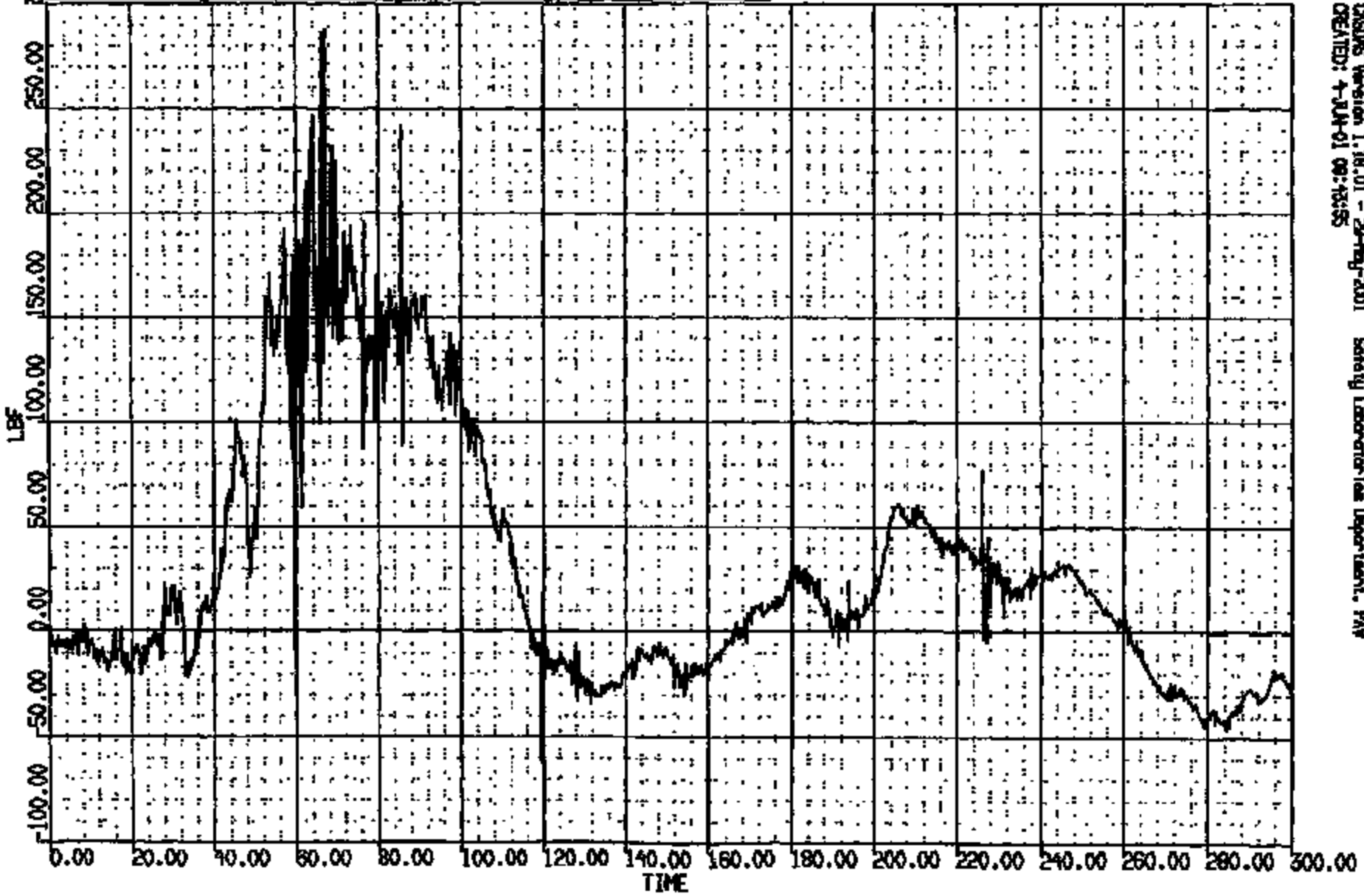


CRS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:44:24

CRIS 0012060

CR: R: 12000 TO: TC1950 DATE: 001106 16:31:14  
8000 D188

(5) CR12060T L/F DUMMY NECK UPPER LOAD FZ 1000N  
MAX = 288.0 at 66.96 MS MIN = -61.82 at 119.4 MS **AXIS 1**

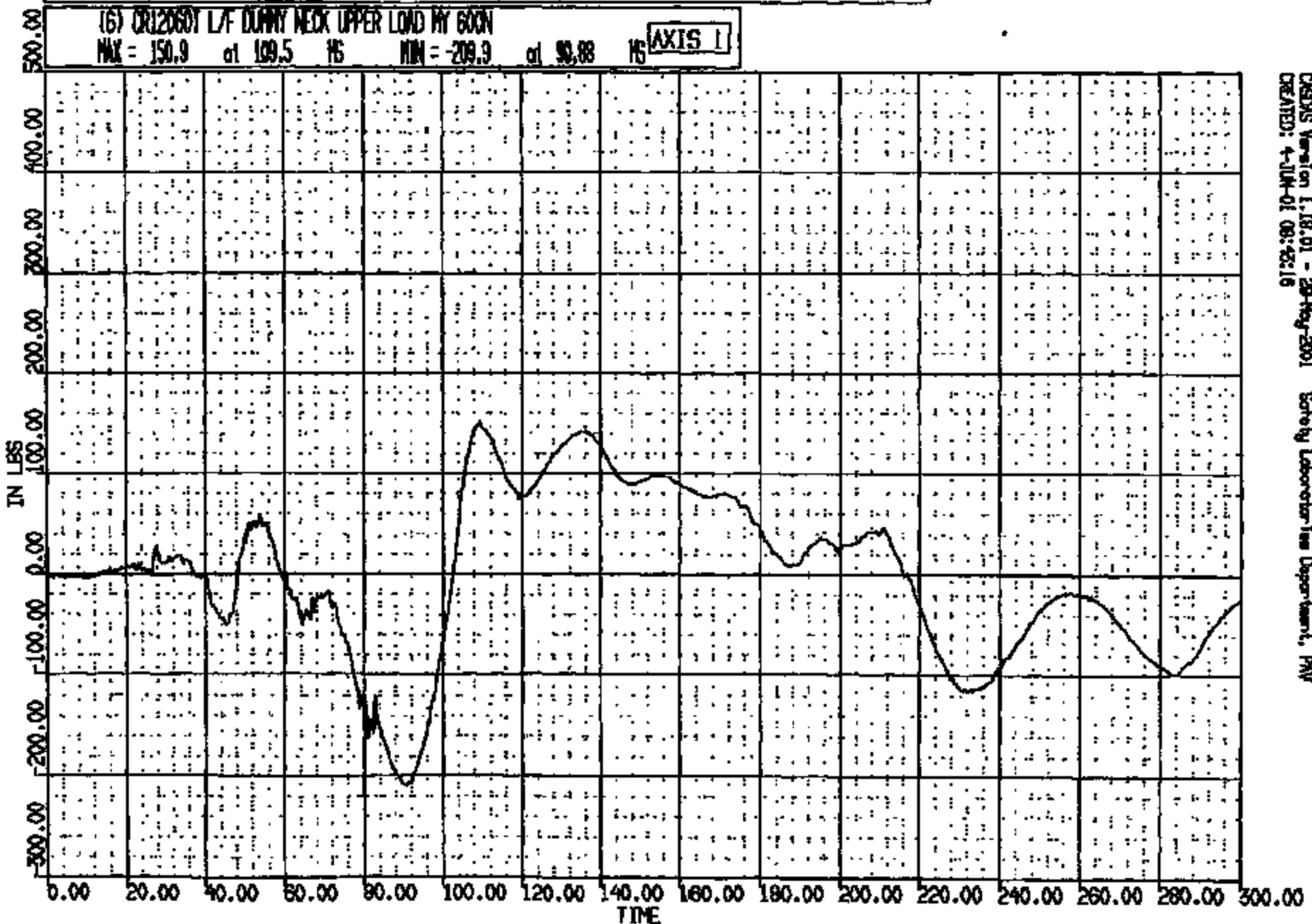


CRSWS Version 1.18.01 - 29-May-2001 Safety Laboratory Department, PAW  
CREATED: 4-JUN-01 08:43:55

CRIS 0012060

CR R: 12000 TO: TC1030 DATE: 001108 18:31:14  
2000 D198

(6) CR12060 L/F DUMMY NECK UPPER LOAD BY 600N  
MAX = 150.9 at 109.5 MS MIN = -209.9 at 90.88 MS **AXIS 1**



CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratory Inc Department, PNV  
CREATED: 4-JUN-01 08:43:18

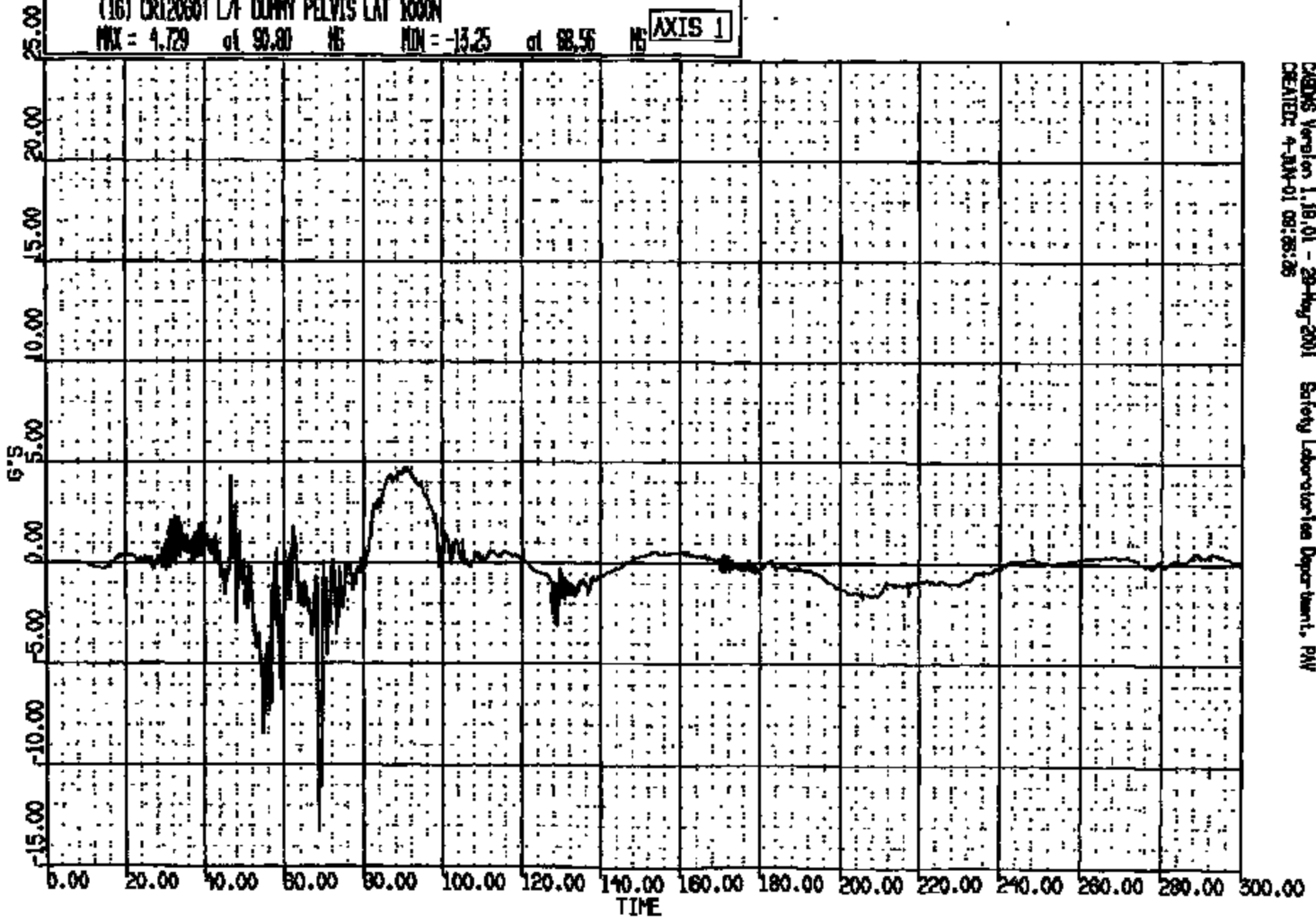
CRIS 0012060

CR #: 12060 TO: TC1850 DATE: 001108 18:31:14  
2000 D188

(16) CR12060 L/F DUMMY PELVIS LAT X000N

MAX = 4.729 at 90.80 MS MIN = -13.25 at 88.56 MS

AXIS 1

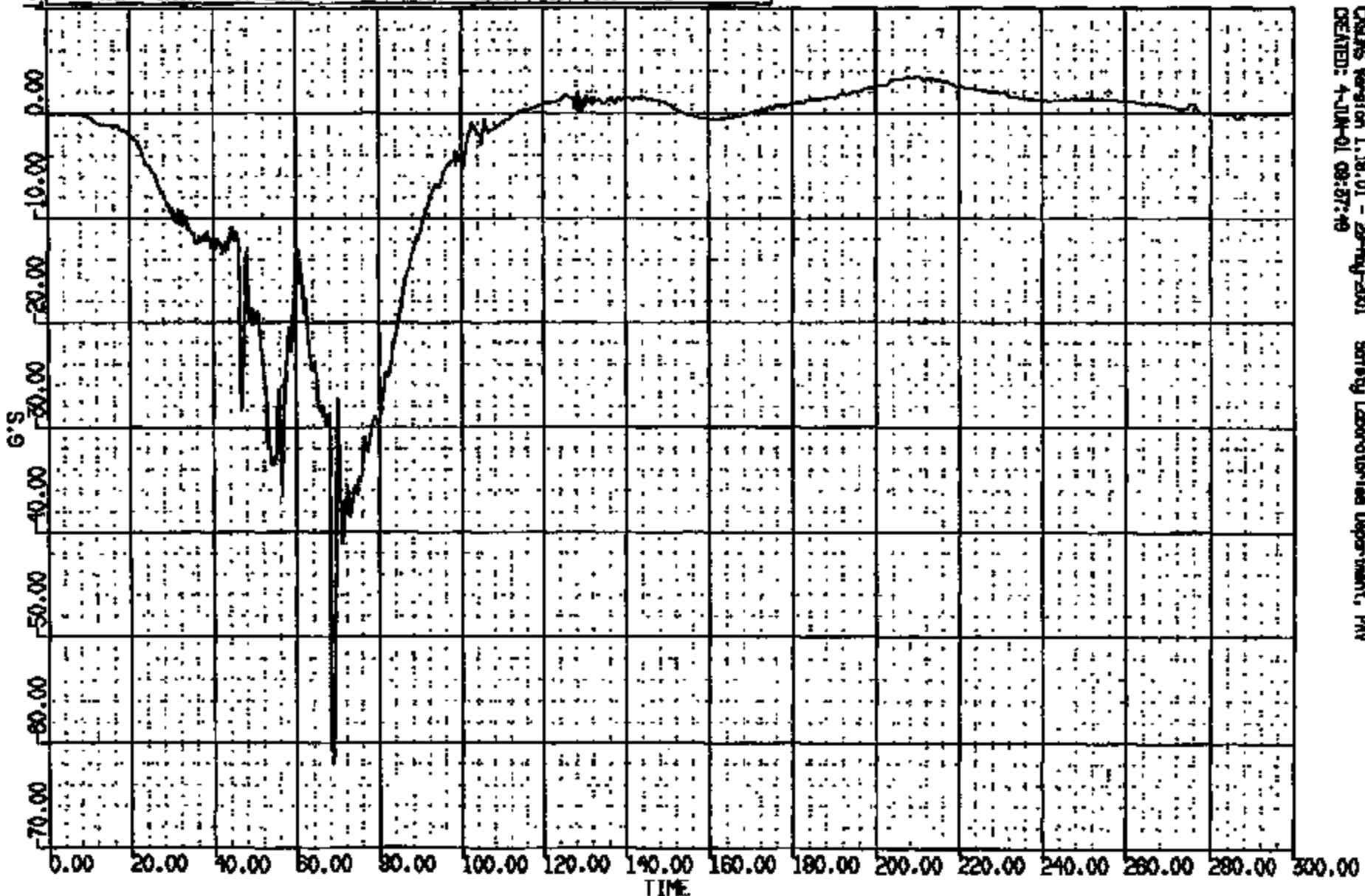


CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNV  
CREATED: 4-JUN-01 08:28:28

CRIS 0012060

CR R: 12060 TO: TC1630 DATE: 001108 16:31:14  
2000 D199

(14) CR12060 L/F DUNY PELVIS LONG 100N  
MAX = 3.566 at 210.2 MS MIN = -61.75 at 68.98 MS **AXIS 1**



CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNV  
CREATED: 4-JUN-01 09:57:49

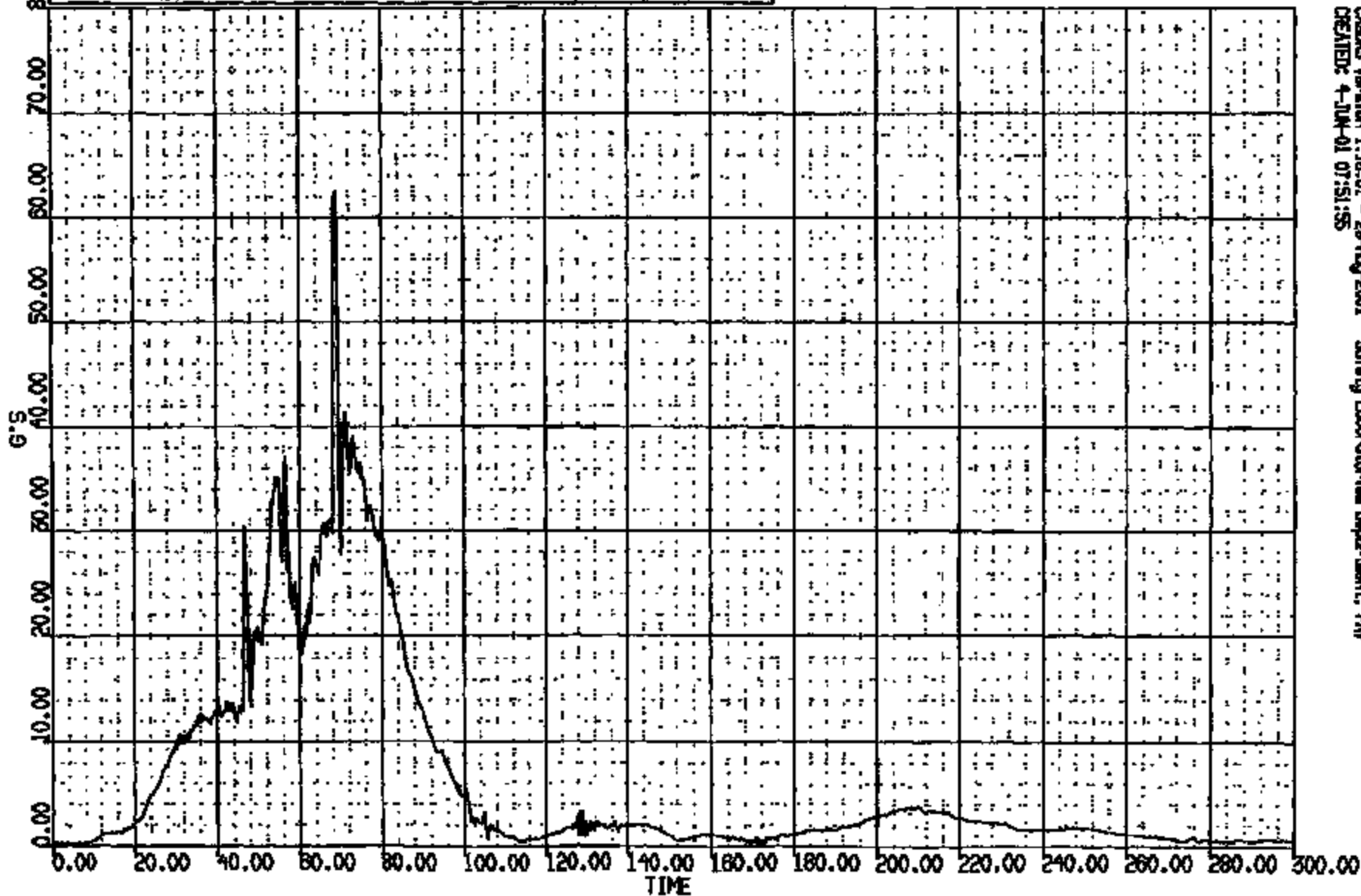
CRIS 0012060

NO R: 12080 TO: TC1830 DATE: 001108 18:31:14  
NO00 DISK

(10014) CR12060T L/F DUMP PELVIS RES 1000W

MAX = 62.40 at 68.88 NS MIN = 0.1742 at 3.920 NS

AXIS 1



CREATED: 4-JUN-01 07:51:55

Safety Laboratories Department, PNY

CRTS 0012060

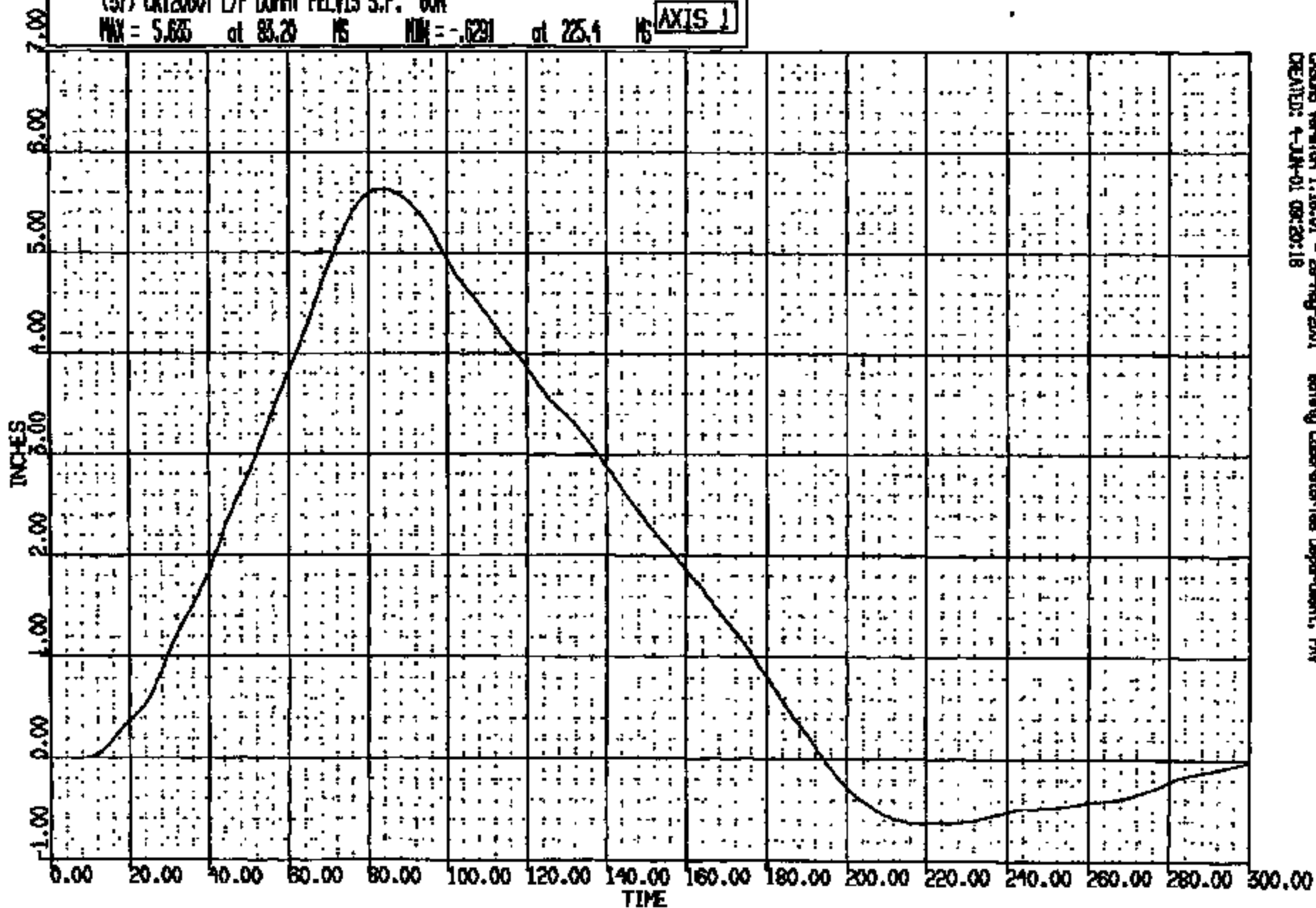


CR R: 12060 TO: TC12060 DATE: 001106 16:31:14  
2000 D188

(37) CR12060T L/F DUMMY PELVIS S.P. 60N

MAX = 5.635 at 83.29 MS MIN = -.6291 at 225.4 MS

AXIS 1

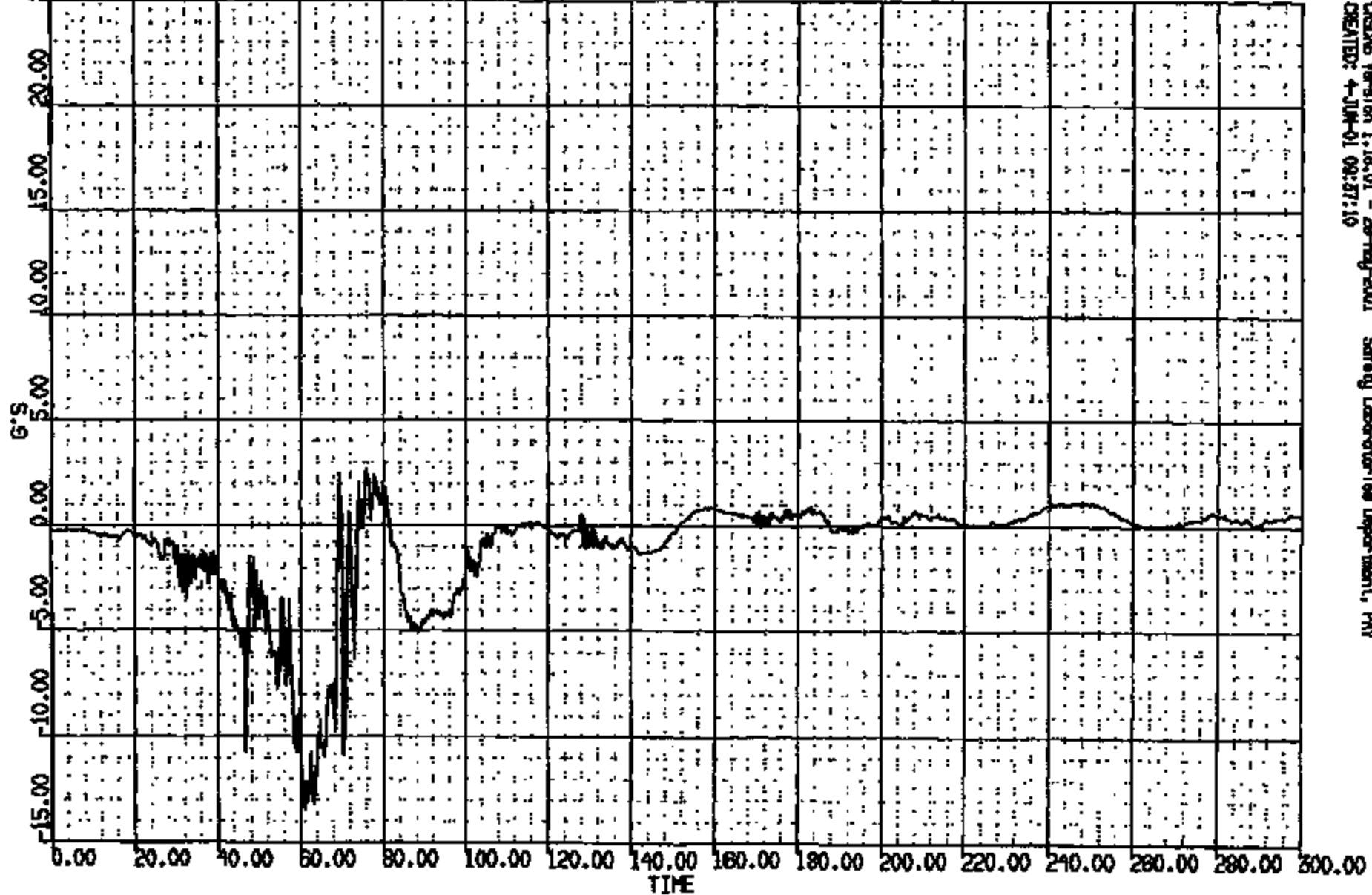


CRS06 Version 1.18.01 - 29-Aug-2001 Ratley Laboratories Department, PNV  
CREATED: 4-JUN-01 08:20:18

CRTS 0012060

CR R: 12060 TO: TC1820 DATE: 001105 16:31:14  
8000 D186

(15) CR12060 L/F DUMMY PELVIS VERT 1000N  
MAX = 2.563 at 75.76 MS MIN = -13.55 at 61.20 MS **AXIS 1**

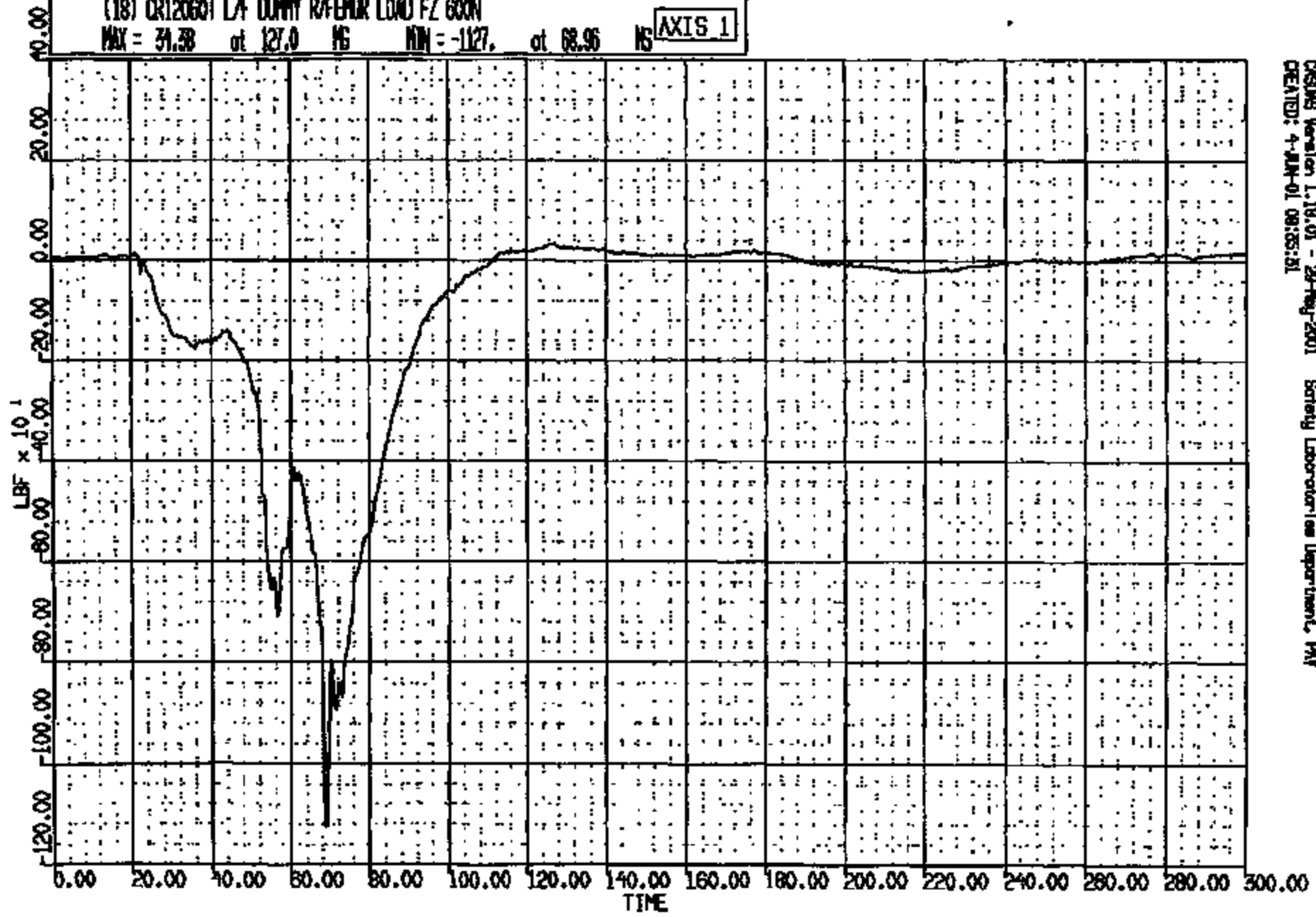


CRYSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNY  
CREATED: 4-JUN-01 09:57:10

CRIS 0012060

CR R: 12060 TO: TC1850 DATE: 001108 16:31:14  
2000 DISE

(18) CR12060 L/F DUMMY REFER LOAD FZ 600N  
MAX = 31.38 at 127.0 MS MIN = -1127. at 68.95 MS **AXIS 1**

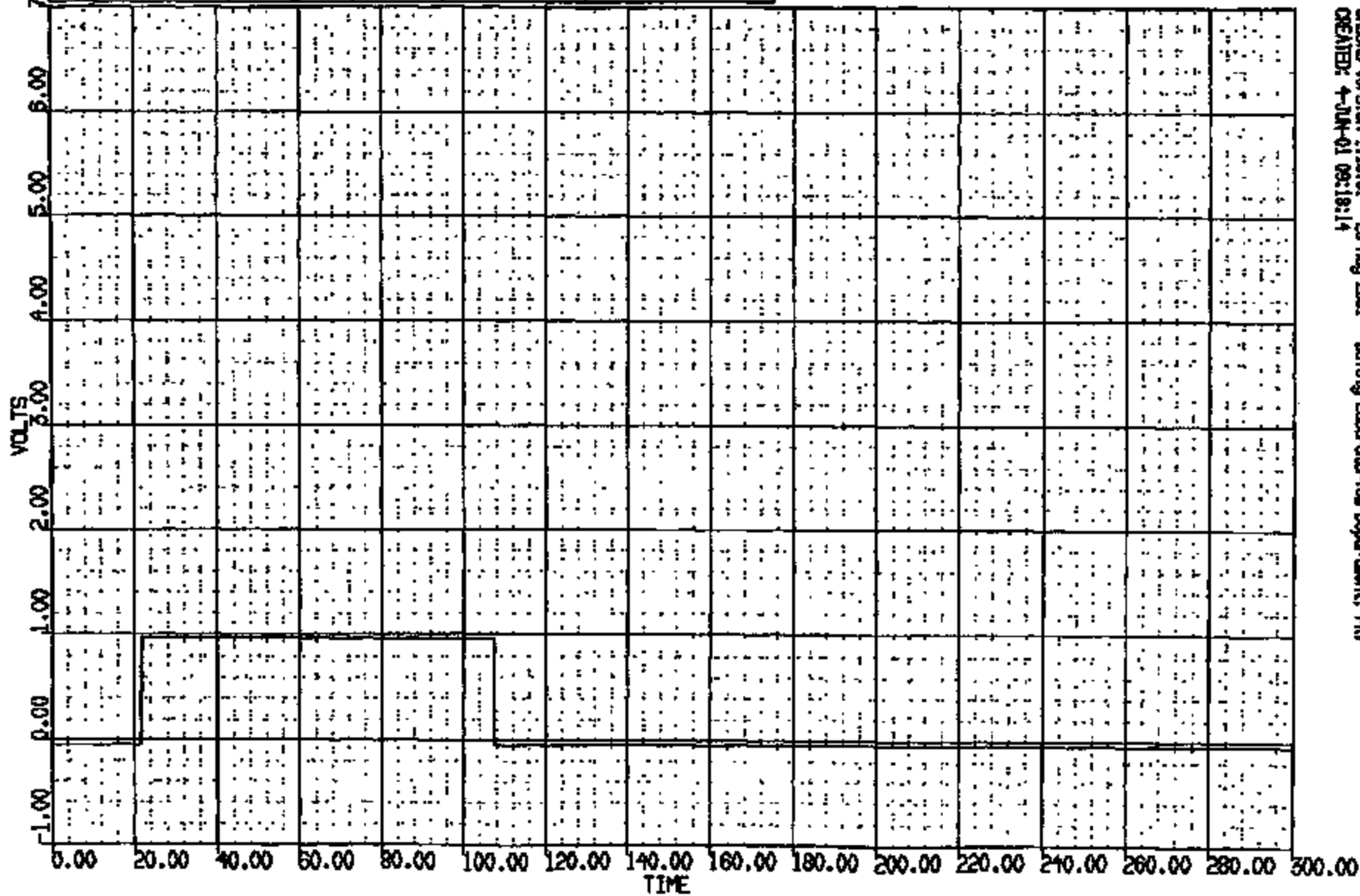


CRS0012060 Version 1.19.01 - 29-May-2001 Briefly Laboratories Department, PAW  
CREATED: 4-JUN-01 09:35:31

CRIS 0012060

CR R: 12060 TO: TC1830 DATE: 001108 18:31:14  
2000 DISB

(40) CR12060T L/A DUNN R/VNCE SN 400C  
MAX = 0.9570 at 21.90 MS MIN = -.433E-01 at -.762E-05 MS **AXIS 1**



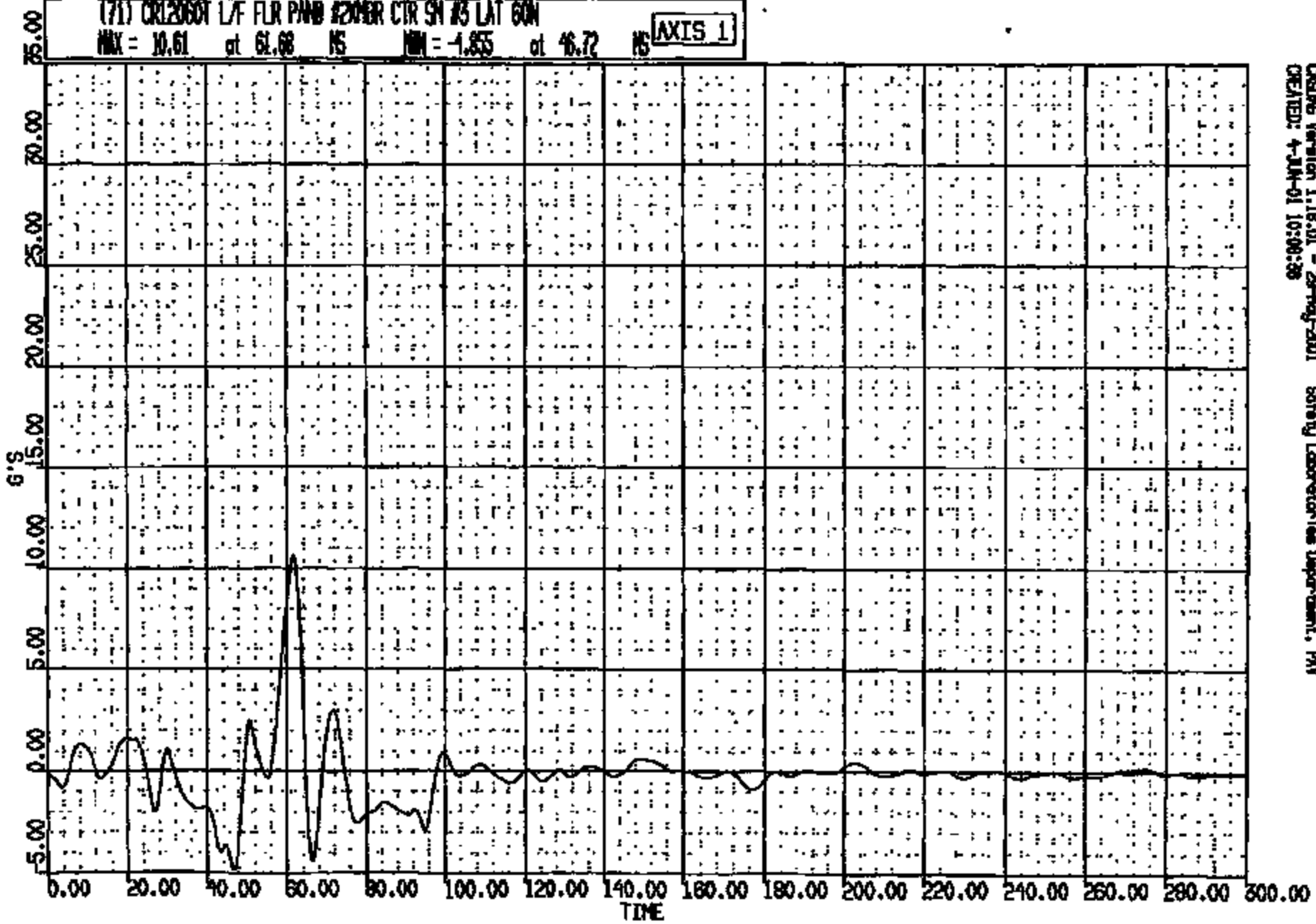
CASDS Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:18:14

CRTS 0012060

CA R: 12060 TO: TC1880 DATE: 001108 18:31:14  
2000 D188

(71) CR120601 L/F FLR PAND #20MR CTR SN #3 LAT 60N  
MAX = 10.61 at 61.68 NS MIN = -1.855 at 46.72 NS

AXIS 1

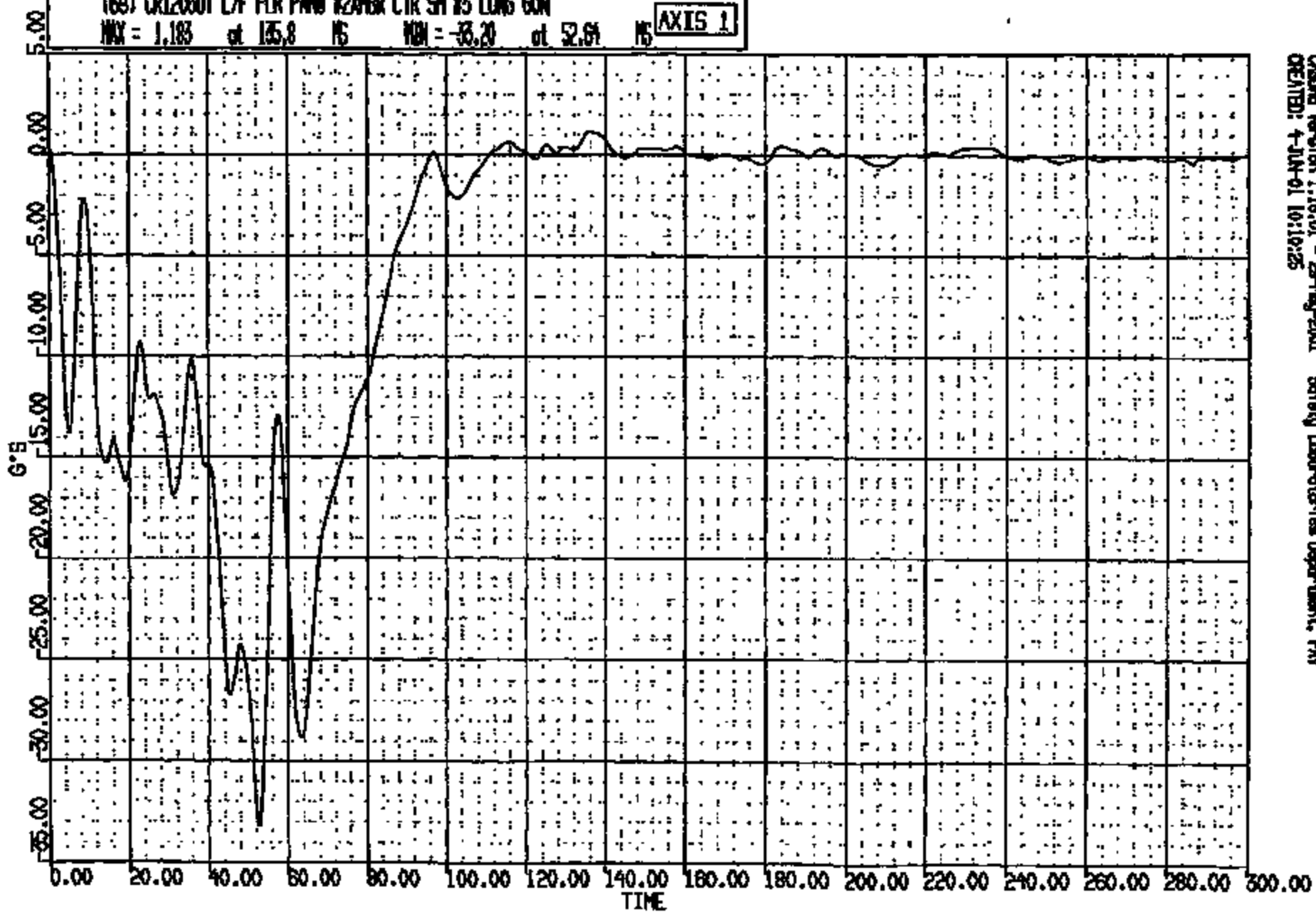


CRSMS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:00:38

CRIS 0012060

CR: R: 12060 TO: TC1830 DATE: 001106 18:21:14  
2000 D188

(69) CR12060T L/F FLR PWD #2468 CTR SH #3 LONG GON  
MAX = 1.183 at 135.8 MS MIN = -33.20 at 52.61 MS **AXIS 1**

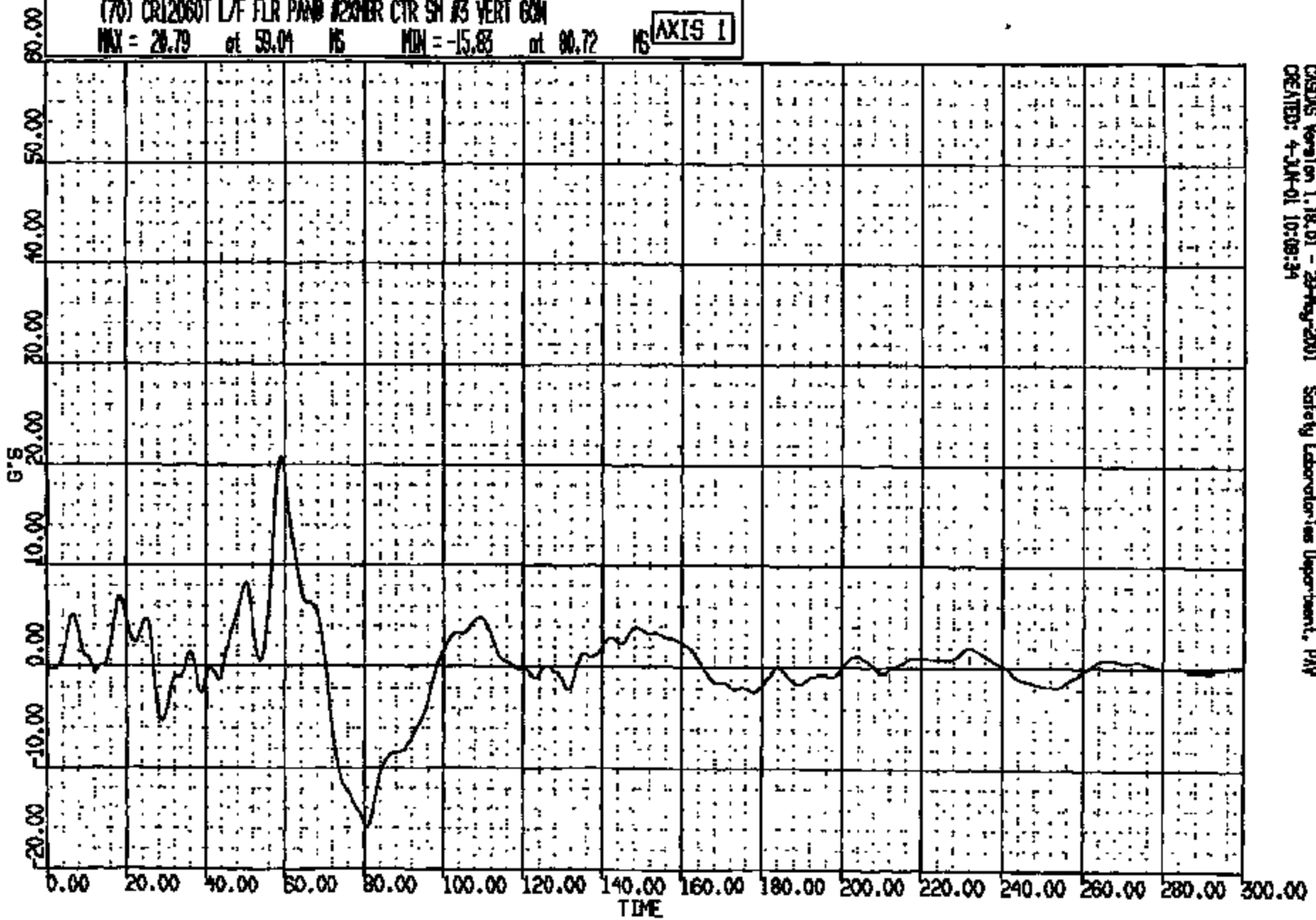


CRSNG Version 1.10.01 - 28-May-2001 Safety Laboratories Department, PHU  
CREATED: 4-JUN-01 10:18:25

CRIS 0012060

CR R: 12060 TO: TC1830 DATE: 001109 16:31:14  
2000 D188

(70) CR12060T L/F FLR PAND #2XMR CTR SH #3 VERT GCM  
MAX = 20.79 at 59.04 MS MIN = -15.83 at 80.72 MS **AXIS 1**



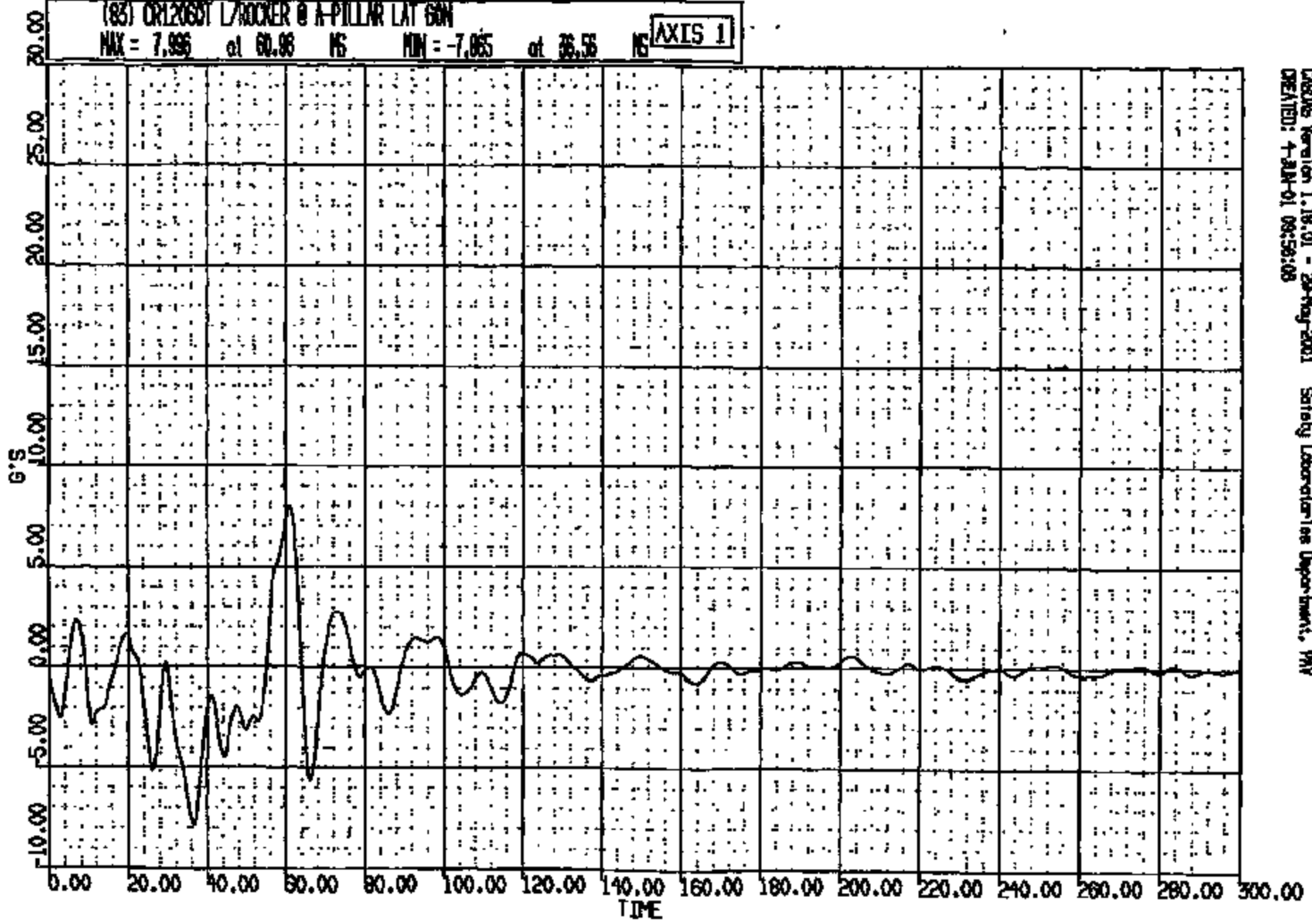
CASAS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAV  
CREATED: 4-JUN-01 10:09:34

CRTS 0012060

CH R: 12060 TO: TC1830 DATE: 00:106 18:31:14  
2000 0188

(83) CR120601 L/ROCKER @ A-PILLAR LAT 60N  
MAX = 7.936 at 60.98 NS MIN = -7.065 at 36.56 NS

AXIS 1



CRS06 Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNY  
CREATED: 4-JUN-01 09:58:08

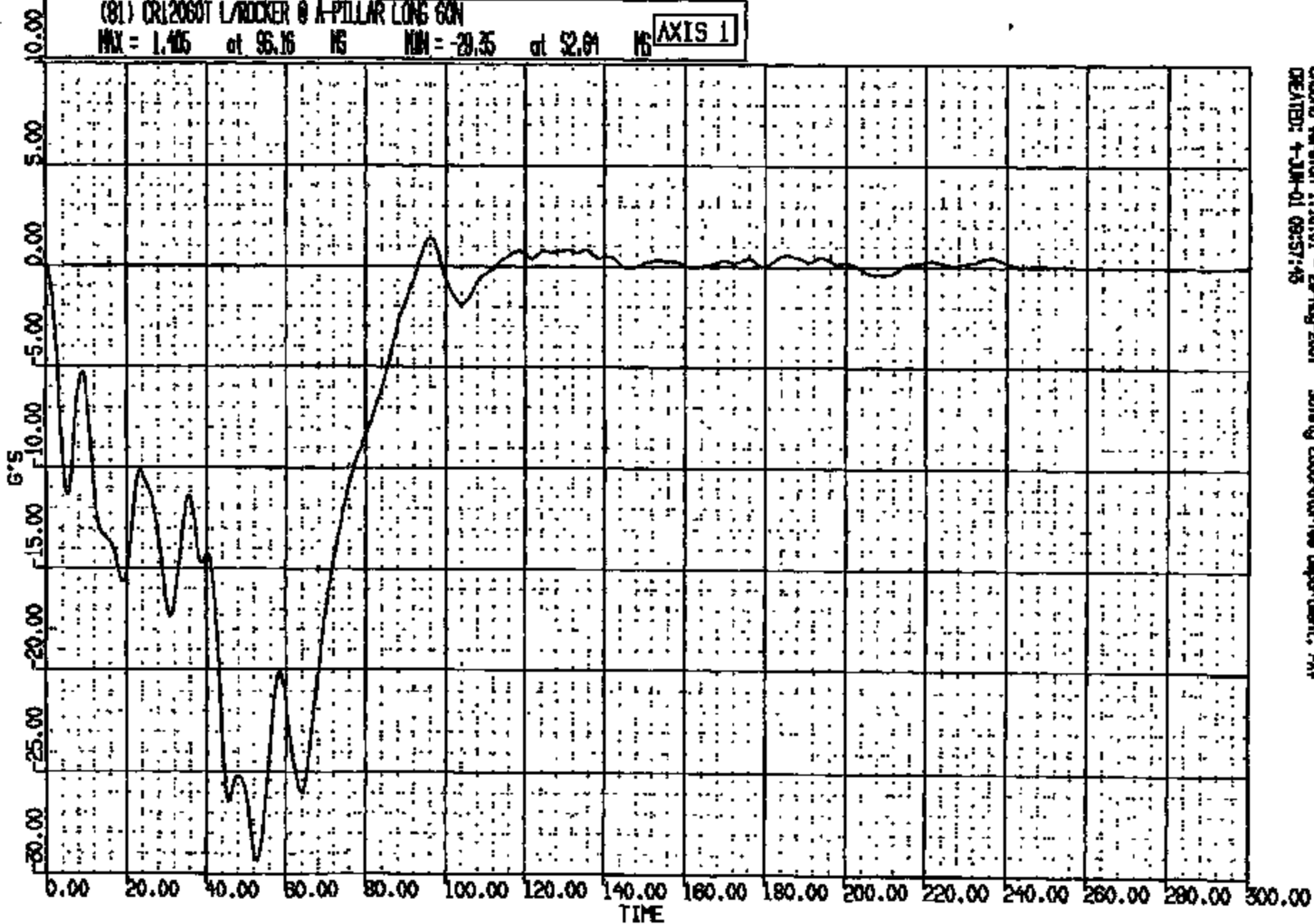
CRIS 0012060



CR R: 12080 TC: TC1850 DATE: 001108 18:31:14  
2000 D188

(81) CR12060T L/ROCKER @ A-PILLAR LONG CON

MAX = 1.406 at 95.16 MS MIN = -29.35 at 52.04 MS **AXIS 1**



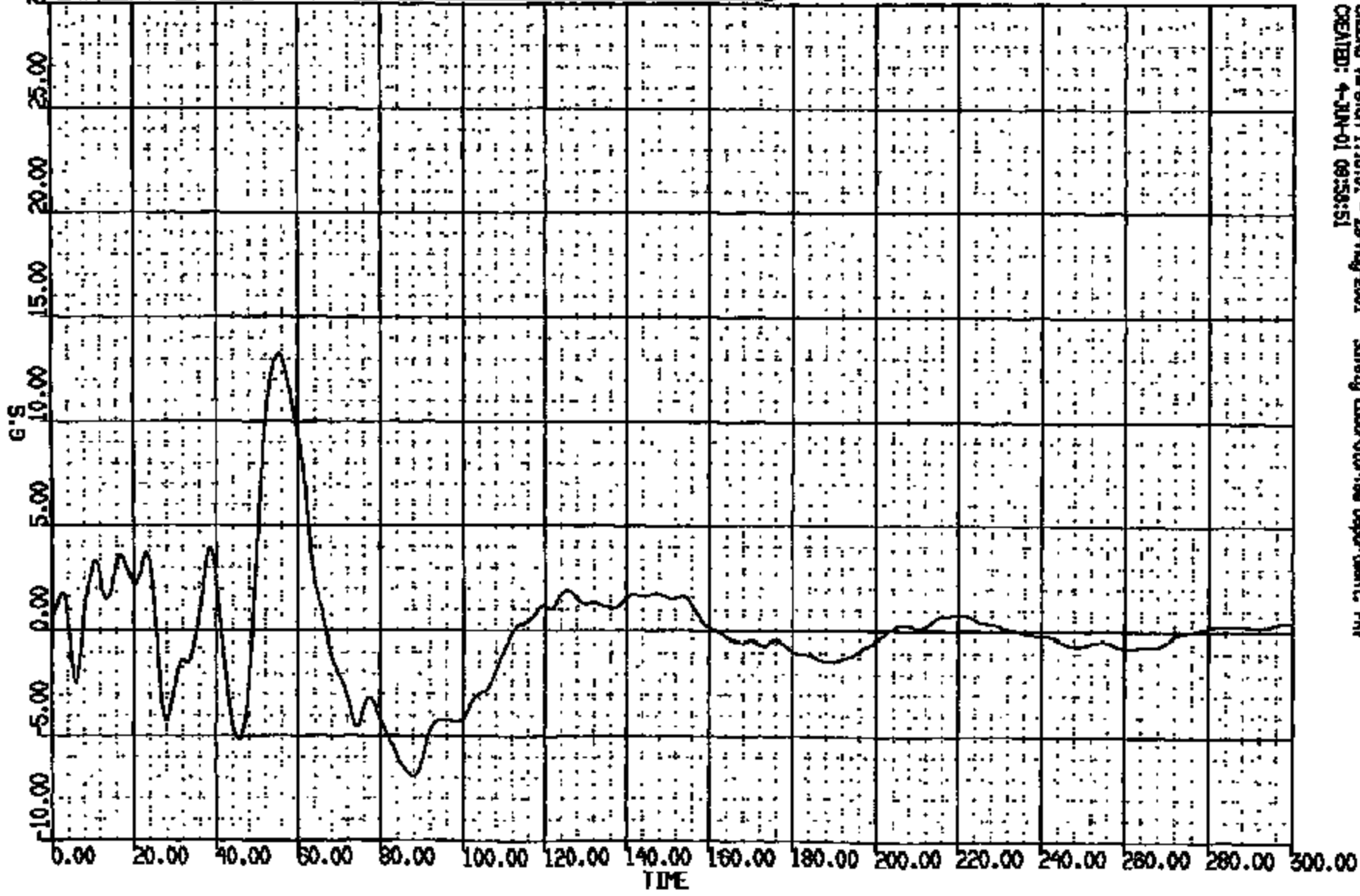
CRS06 Version 1.18.01 - 29-Aug-2001  
CREATED: 4-JUN-01 09:57:48

Safety Laboratories Department, PAW

CRTS 0012060

CR R: 12060 TO: TC1850 DATE: 001108 18:31:14  
2000 0196

(82) CR12060 L/ROCKER @ A-PILLAR VERT 60N  
MAX = 13.23 at 55.36 NS MIN = -6.932 at 88.08 NS **AXIS 1**

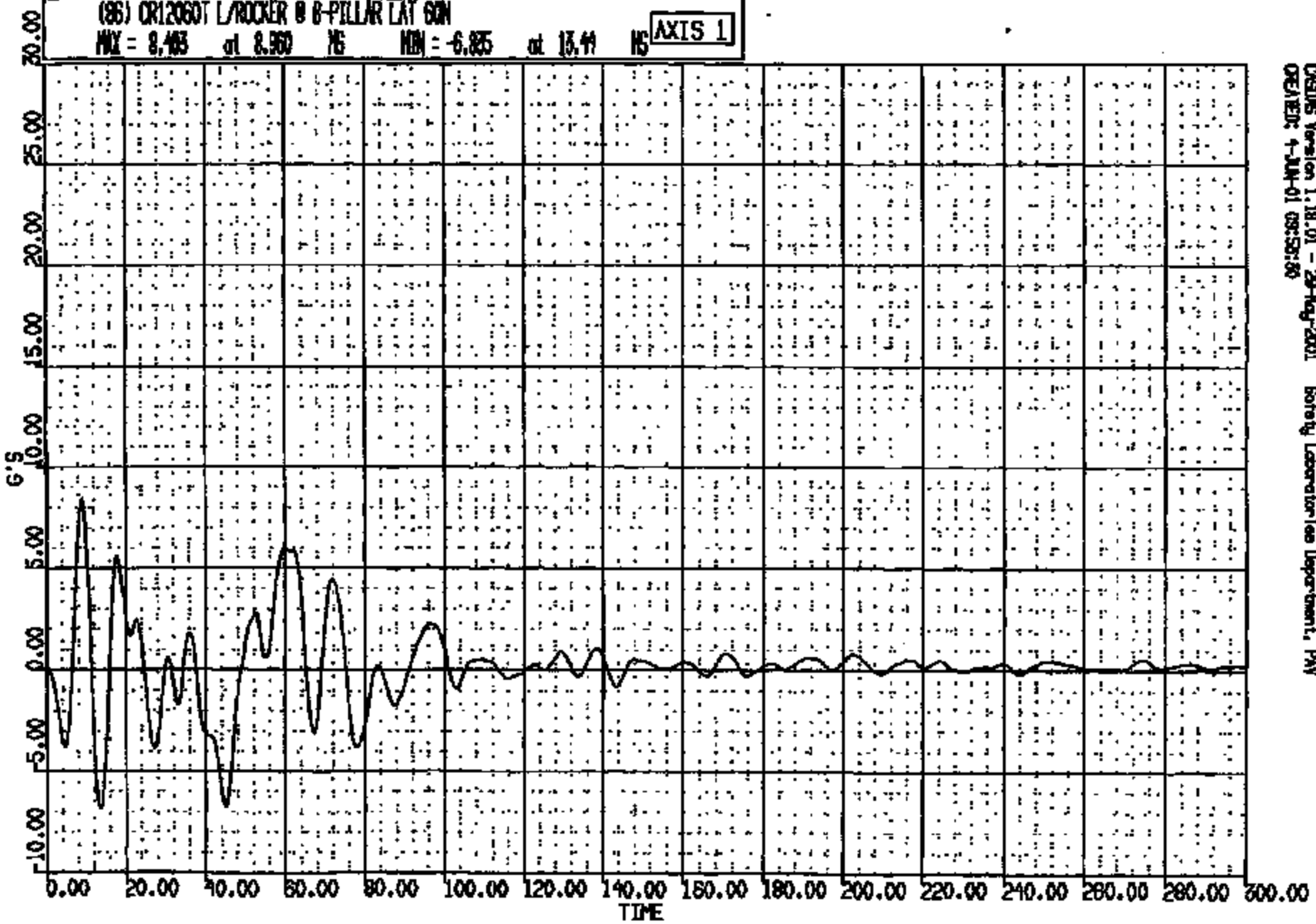


CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PHV  
CREATED: 4-JUN-01 09:58:51

CRIS 0012060

CH R: 12060 TO: TC1850 DATE: 001104 16:51:14  
2000 D188

(86) CR12060T L/ROCKER @ B-PILLAR LAT 60N  
MAX = 8.485 at 8.960 MS MIN = -6.835 at 13.41 MS **AXIS 1**



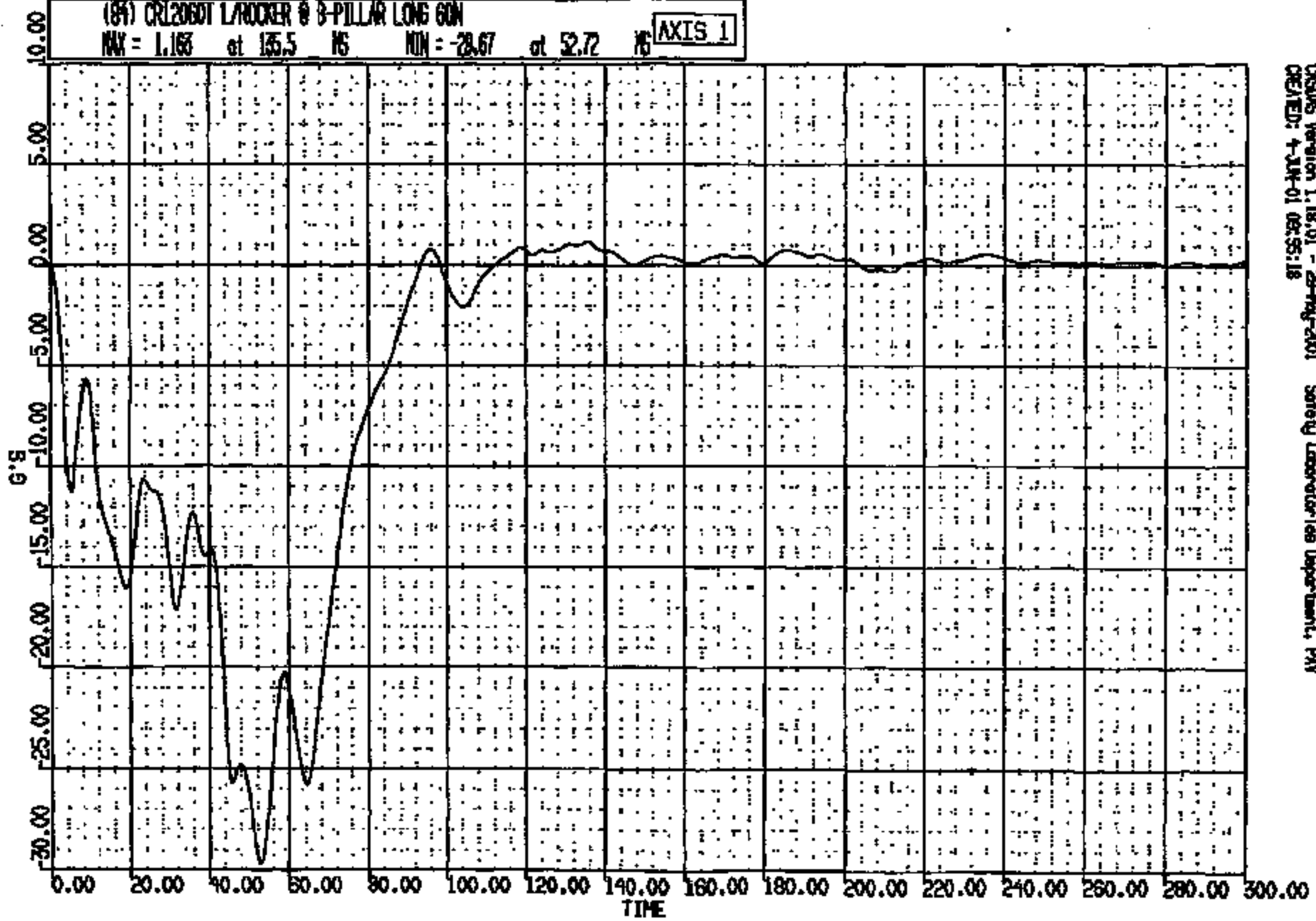
CRS1MS Version 1.18.01 - 29-Aug-2001 Safety Laboratory/See Department, PAW  
DEF/RETC 4-JUN-01 09:58:38

CRIS 0012060

CR: R: 12060 TD: TC1850 DATE: 001106 16:31:14  
2000 D180

(84) CR120601 L/ROCKER @ B-PILLAR LONG GUN  
MAX = 1.163 at 135.5 MS MIN = -28.67 at 52.72 MS

AXIS 1

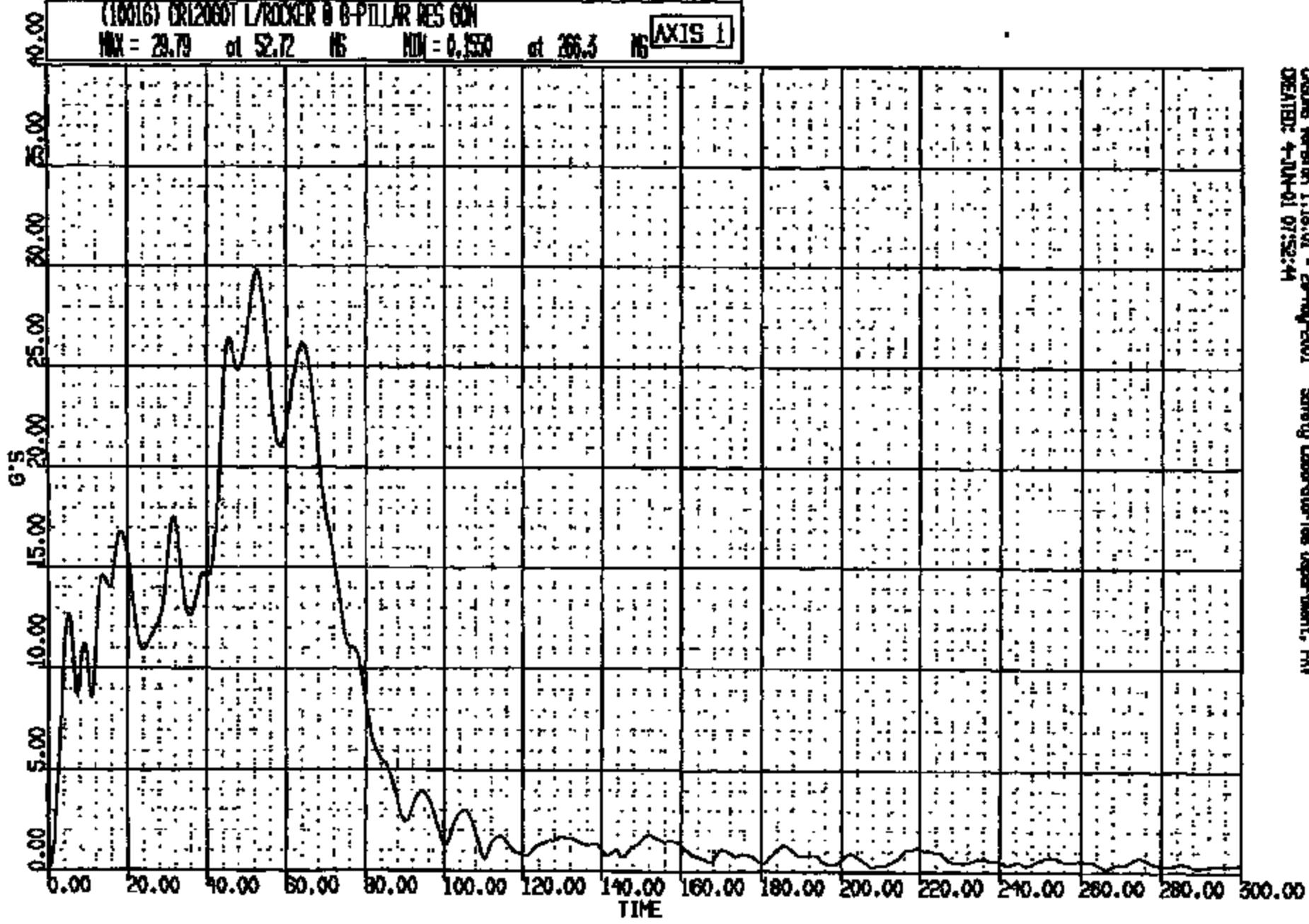


CRSUS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:55:18

CRIS 0012060

CR R: 12060 TO: TC1850 DATE: 001108 16:31:14  
2000 D188

(10016) CR12060T L/ROCKER @ B-PILLAR RES CON  
MAX = 29.79 at 52.72 MS MIN = -0.1550 at 266.3 MS **AXIS 1**

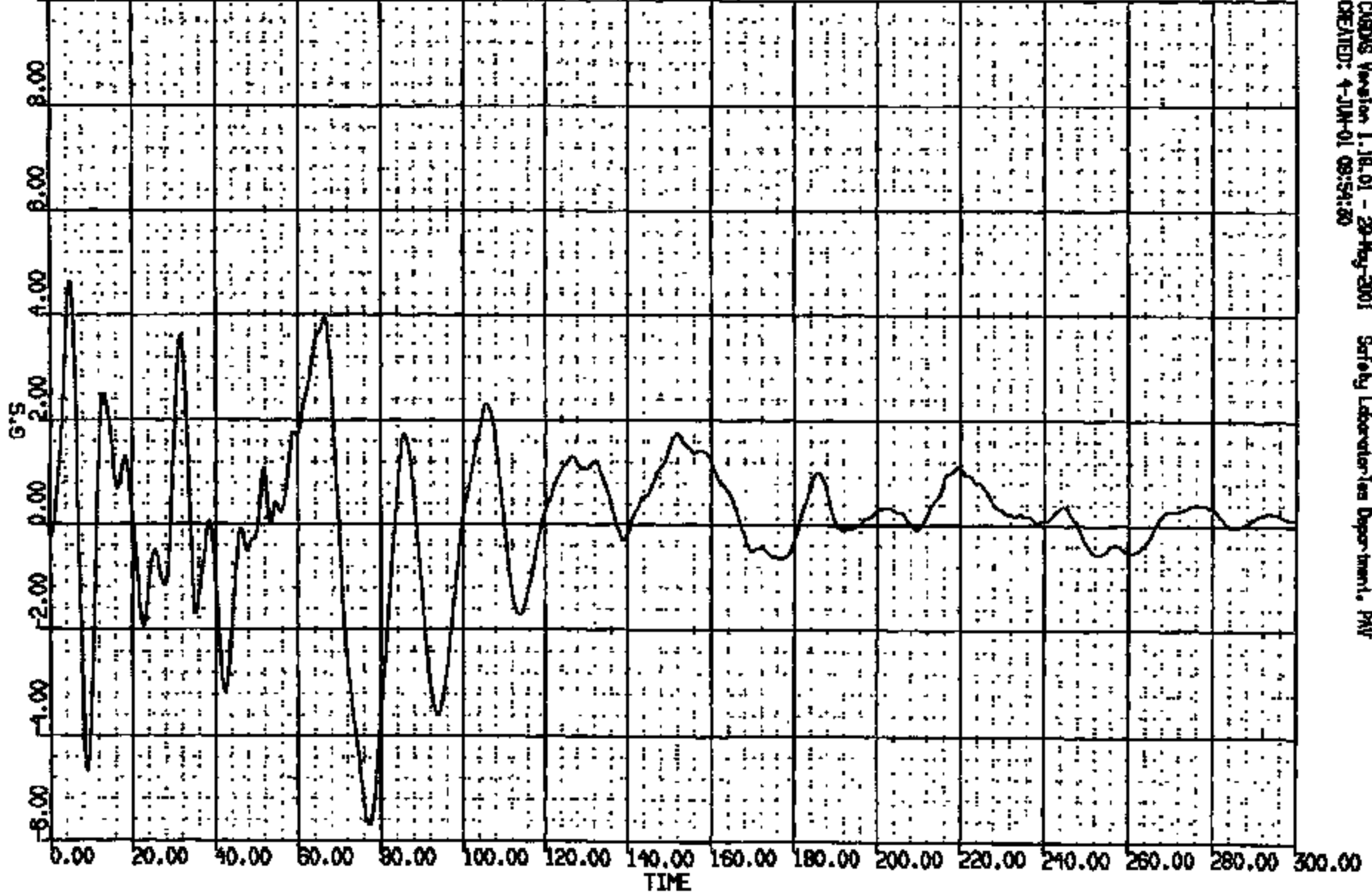


CRASH Velocity 1.18 G - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 07:52:44

CRIS 0012060

RCR #: 12060 TO: TC1260 DATE: 001106 15:51:14  
#000 D199

(85) CR12060T L/ROCKER @ B-PILLAR VERT GON  
MAX = 4.651 at 5.040 NS MIN = -5.701 at 77.28 NS **AXIS 1**

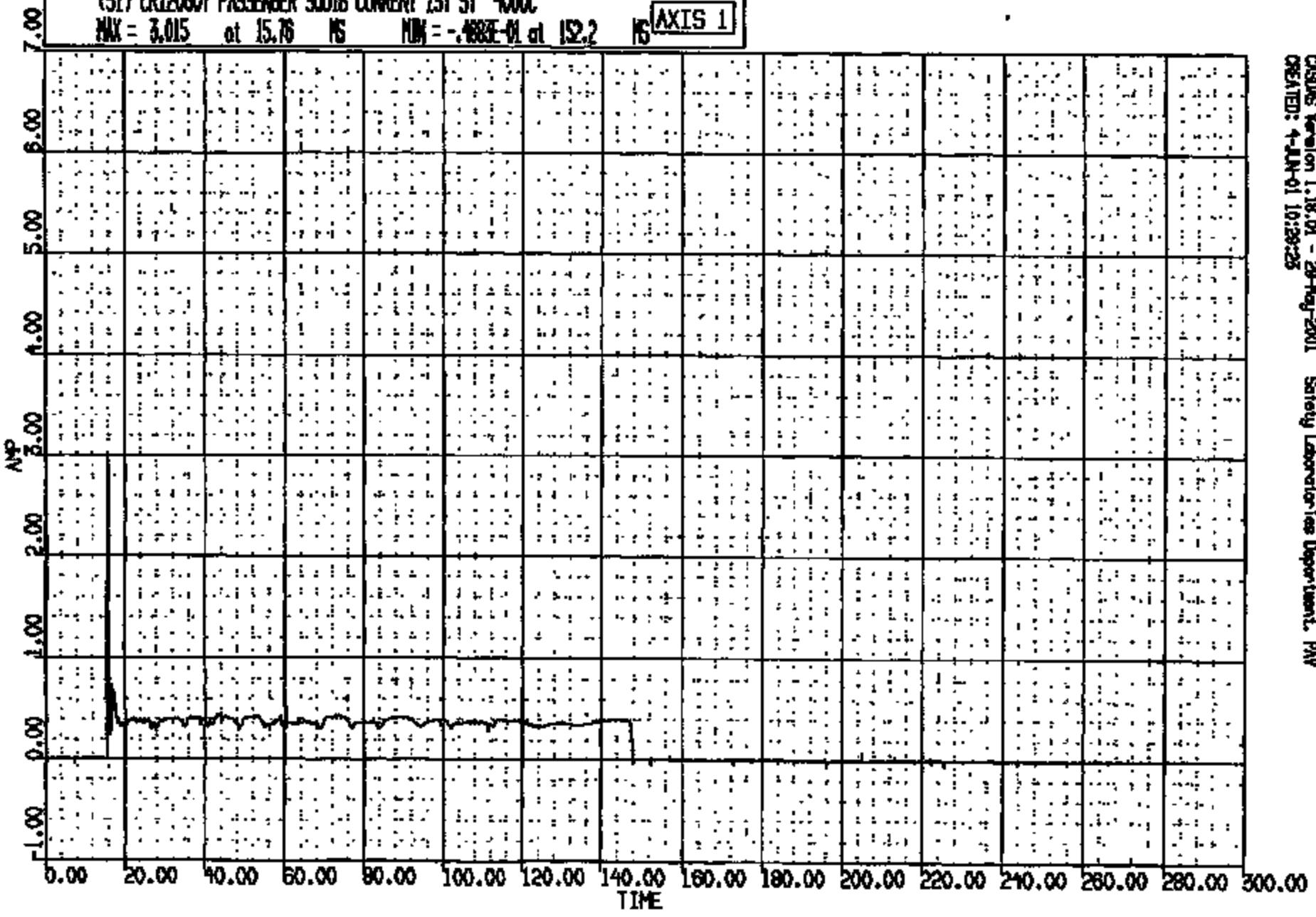


CHDS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNV  
CREATED: 4-JUN-01 09:54:20

CRTS 0012060

CR #: 12060 TO: TC1850 DATE: 001108 15:31:14  
2000 DISB

(51) CR12060 PASSENGER SUBS CURRENT 1ST ST 400C  
MAX = 3.015 at 15.76 MS MIN = -.488E-01 at 152.2 MS AXIS 1

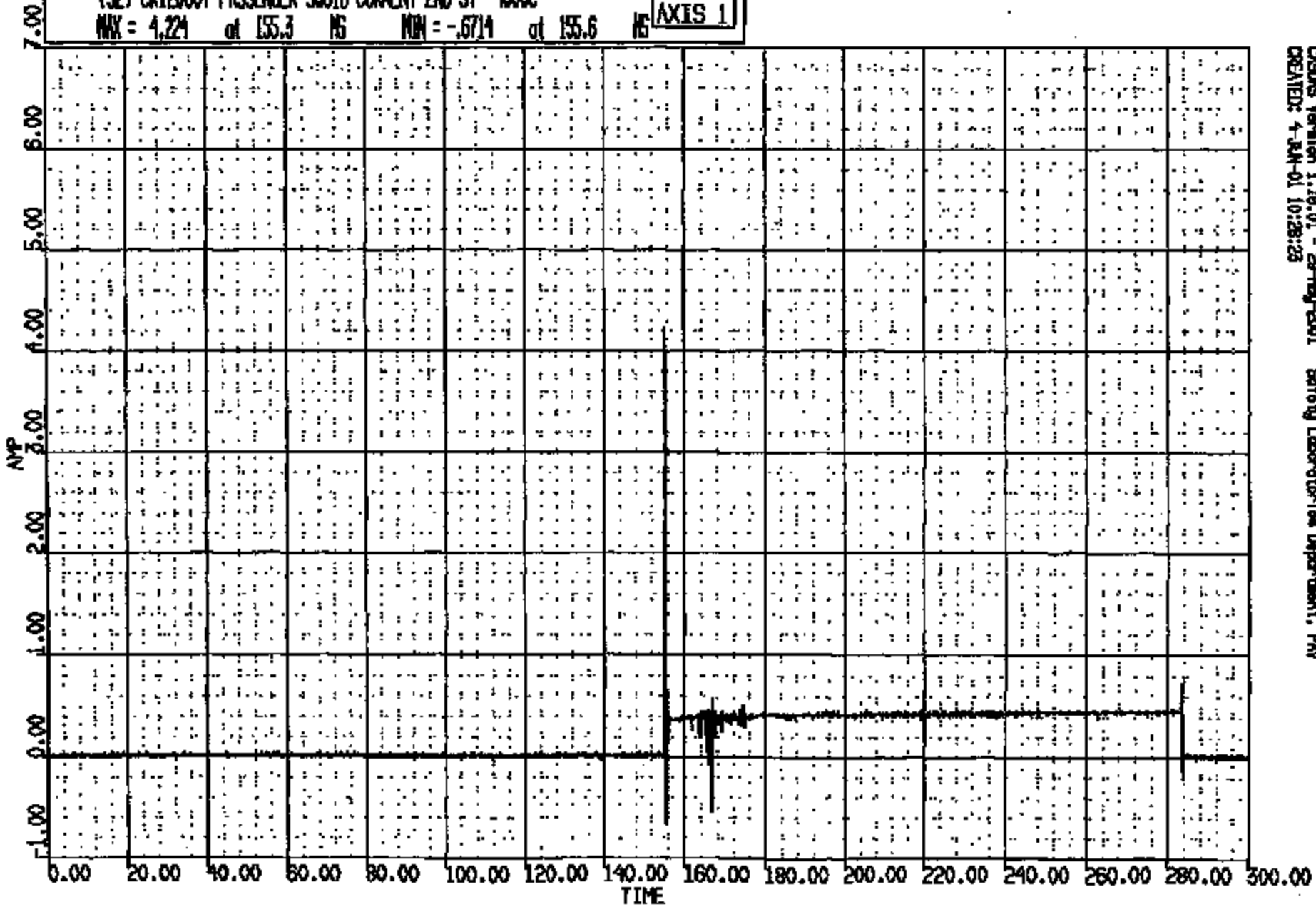


CASDS Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PAN  
CREATED: 4-JUN-01 10:29:25

CRTS 0012060

CH R: 12080 TO: TC1830 DATE: 001104 18:31:14  
2000 Digs

(52) CR120601 PASSENGER SOUTH CURRENT 2ND ST 4000C  
MAX = 4.224 at 155.3 MS MIN = -6714 at 155.6 MS **AXIS 1**



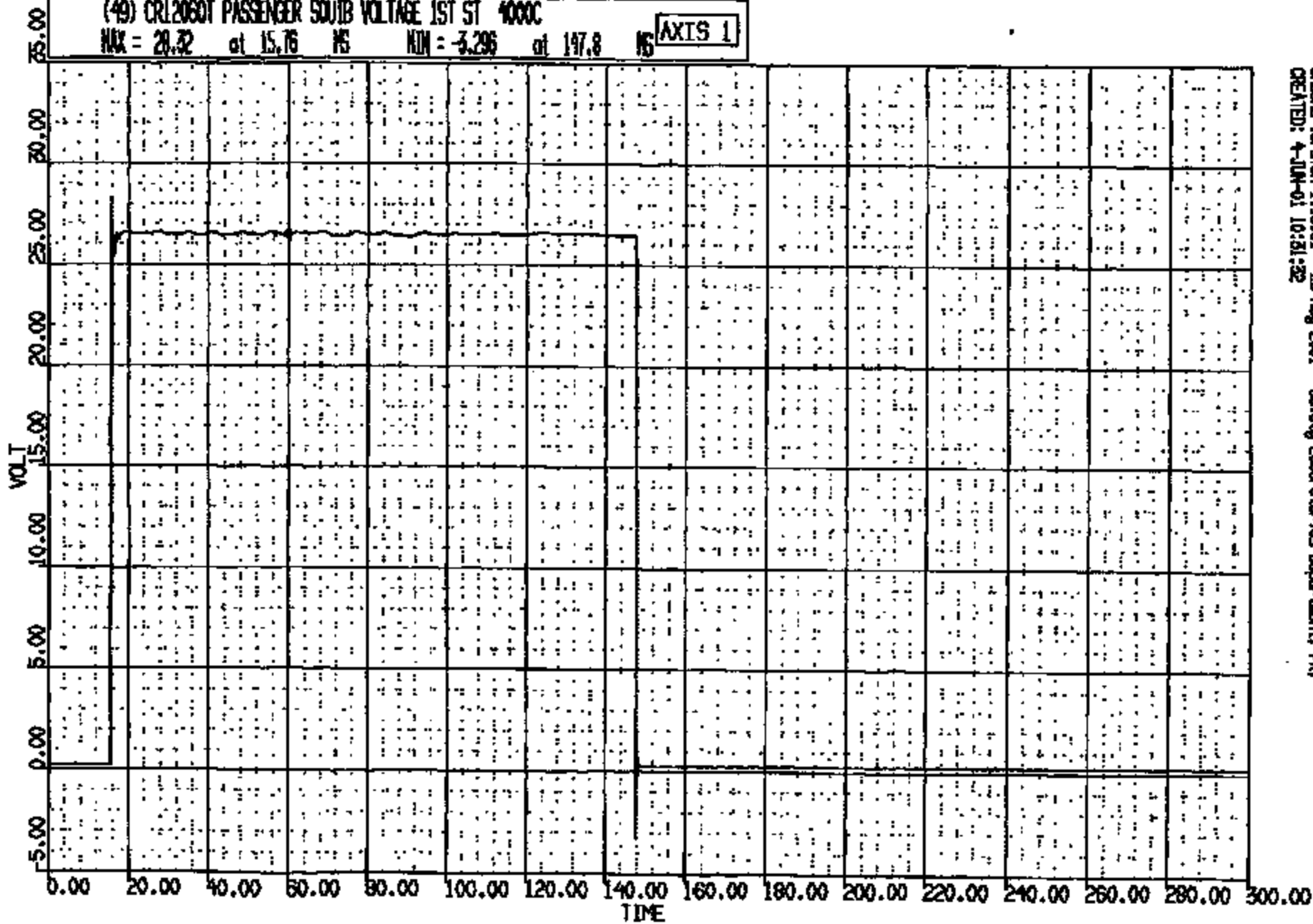
CRDS Version 1.10.01 - 29-May-2001 Safety Laboratory Department, PAW  
CREATED: 4-JUN-01 10:28:23

CRTS 0012060



CH R: 12060 TO: TC1830 DATE: 001104 28:31:14  
2000 C198

(49) CR12060T PASSENGER SQUIB VOLTAGE 1ST ST 4000C  
MAX = 28.32 at 15.76 MS MIN = -3.296 at 147.8 MS **AXIS 1**



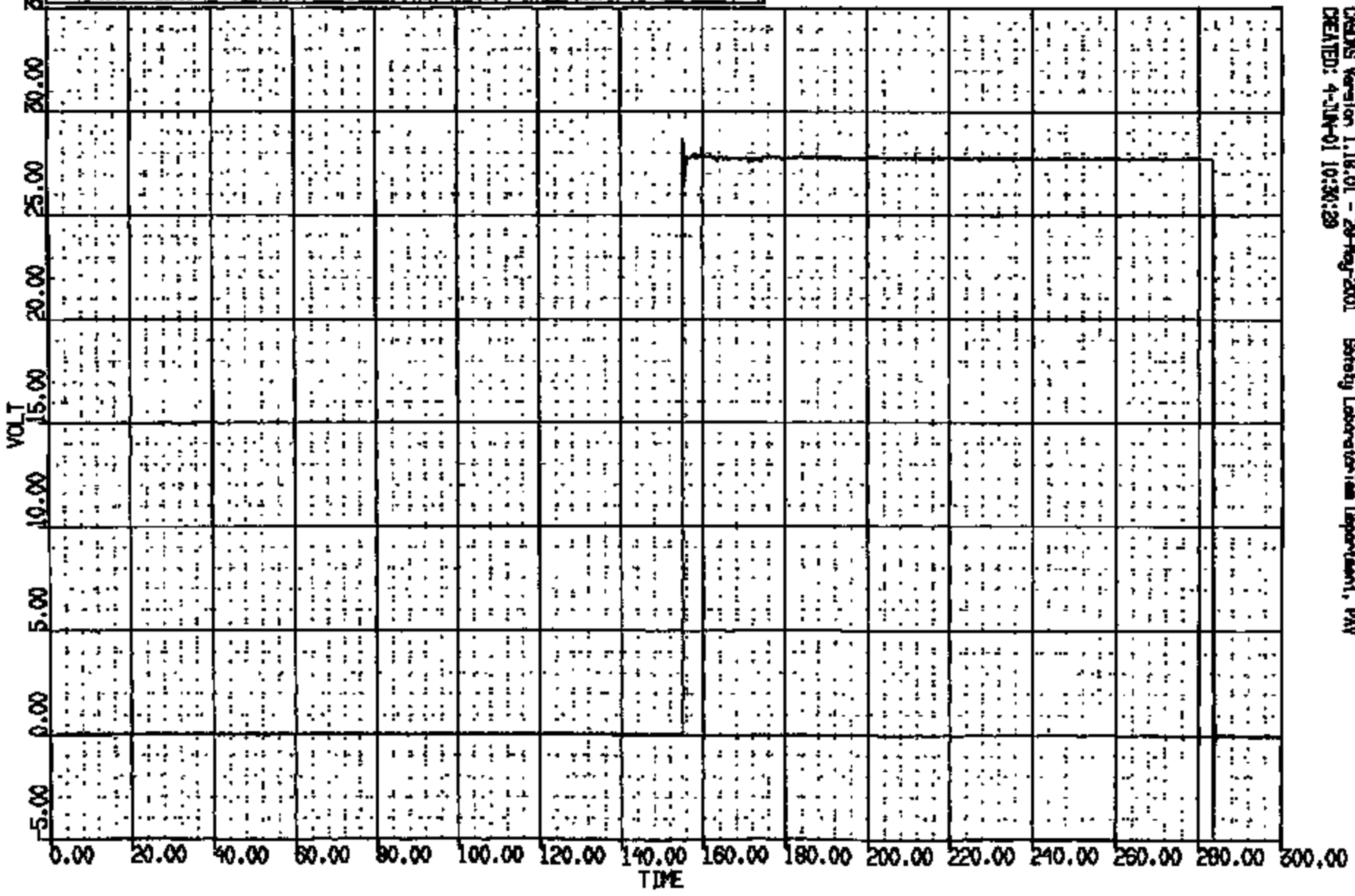
CASME Version 1.18.01 - 28-Aug-2001 Safety Laboratories Department, PAI  
CREATED: 4-JUN-01 10:31:32

CRTS 0012060

CR R: 12080 TO: TC1820 DATE: 001109 10:21:14  
2000 D188

(50) CR120601 PASSENGER SQUIB VOLTAGE 2ND ST 4000C  
MAX = 28.68 at 155.3 MS MIN = -4.834 at 283.6 MS

AXIS 1

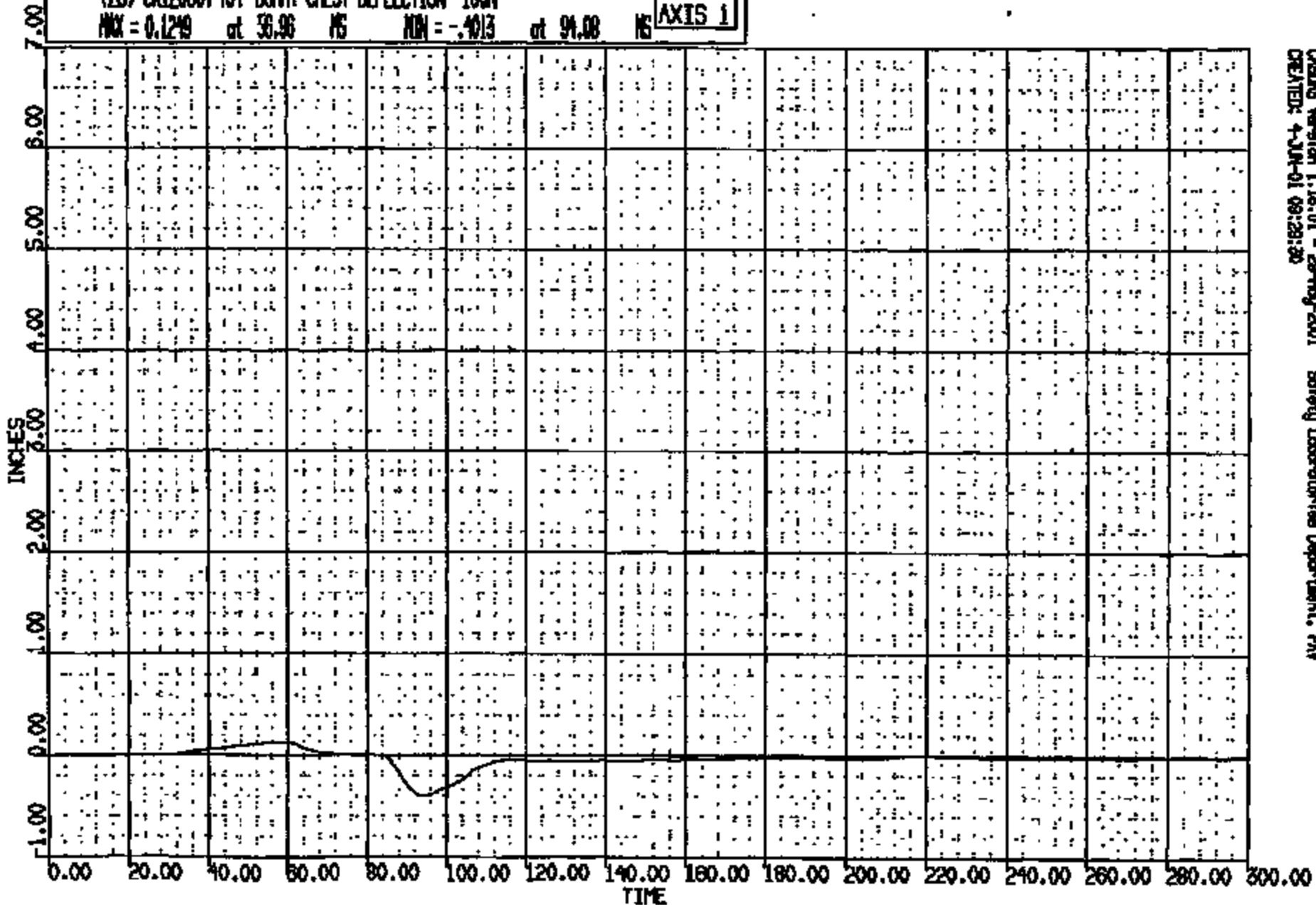


CRSIS Version 1.18.01 - 29-Aug-2001 Safety Laboratory Department, PAW  
CREATED: 4-JUN-01 10:30:29

CRIS 0012060

07 R: 12080 TO: TC1880 DATE: 001106 18:51:14  
0000 D188

(28) CR120601 R/F DUMMY CHEST DEFLECTION 180N  
MAX = 0.1249 at 36.96 MS MIN = -.4013 at 94.08 MS **AXIS 1**

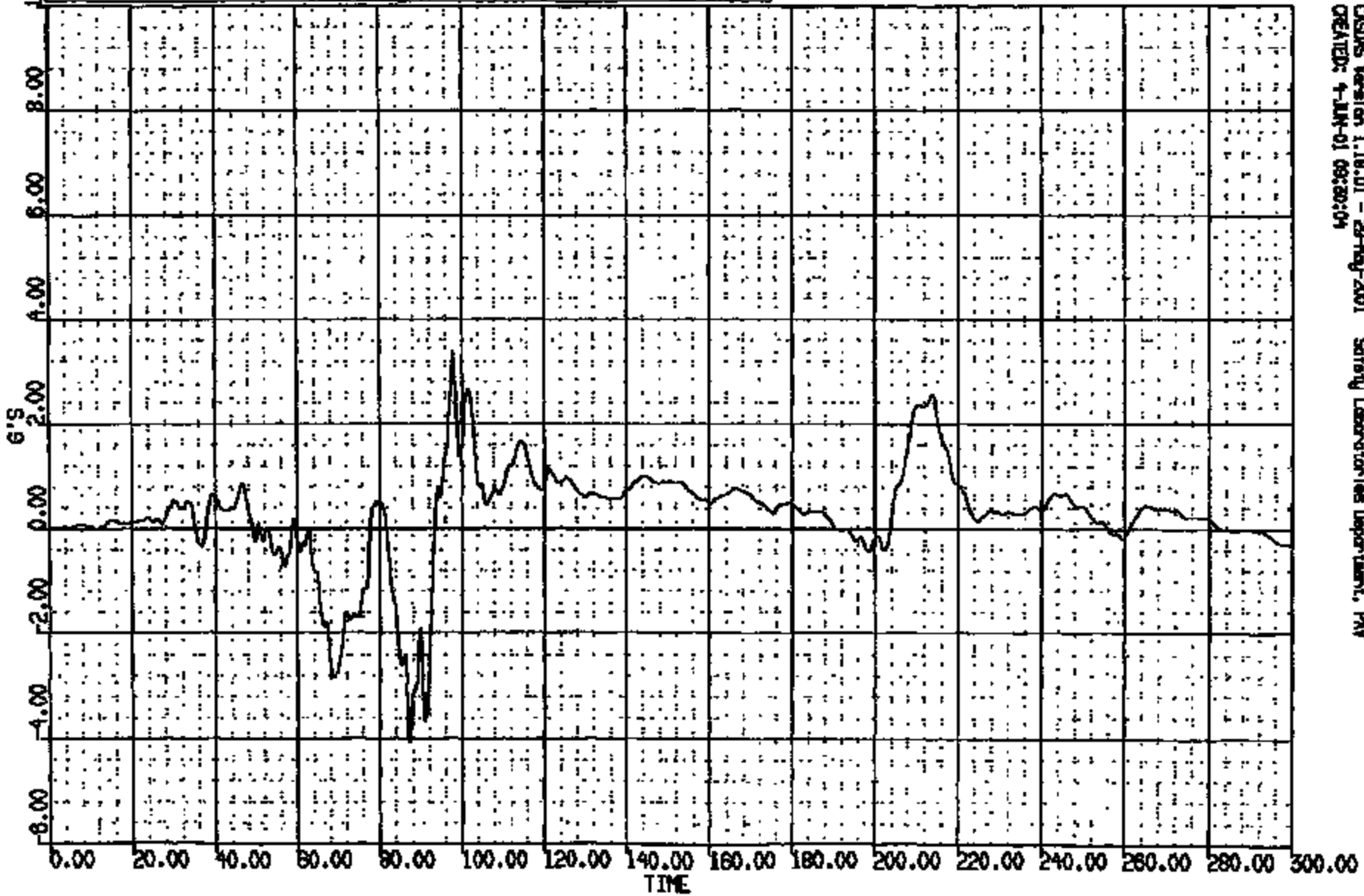


CRTS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNV  
CREATED: 4-JUN-01 09:28:30

CRTS 0012060

CR #: 12060 TD: TC1850 DATE: 00108 16:51:14  
2000 DISB

(27) CR12060T R/F DUMMY CHEST LAT 180M  
MAX = 3.370 at 97.94 MS MIN = -4.083 at 87.28 MS **AXIS 1**



CASMS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:30:04

CRTS 0012060

01 R: 12060 TO: TC1630 DATE: 001104 16:51:14  
0000 0189

(25) CR12060T R/F DUMMY CHEST LONG 180N  
MAX = 9.791 at 208.2 NS MIN = -58.89 at 90.90 NS

AXIS 1



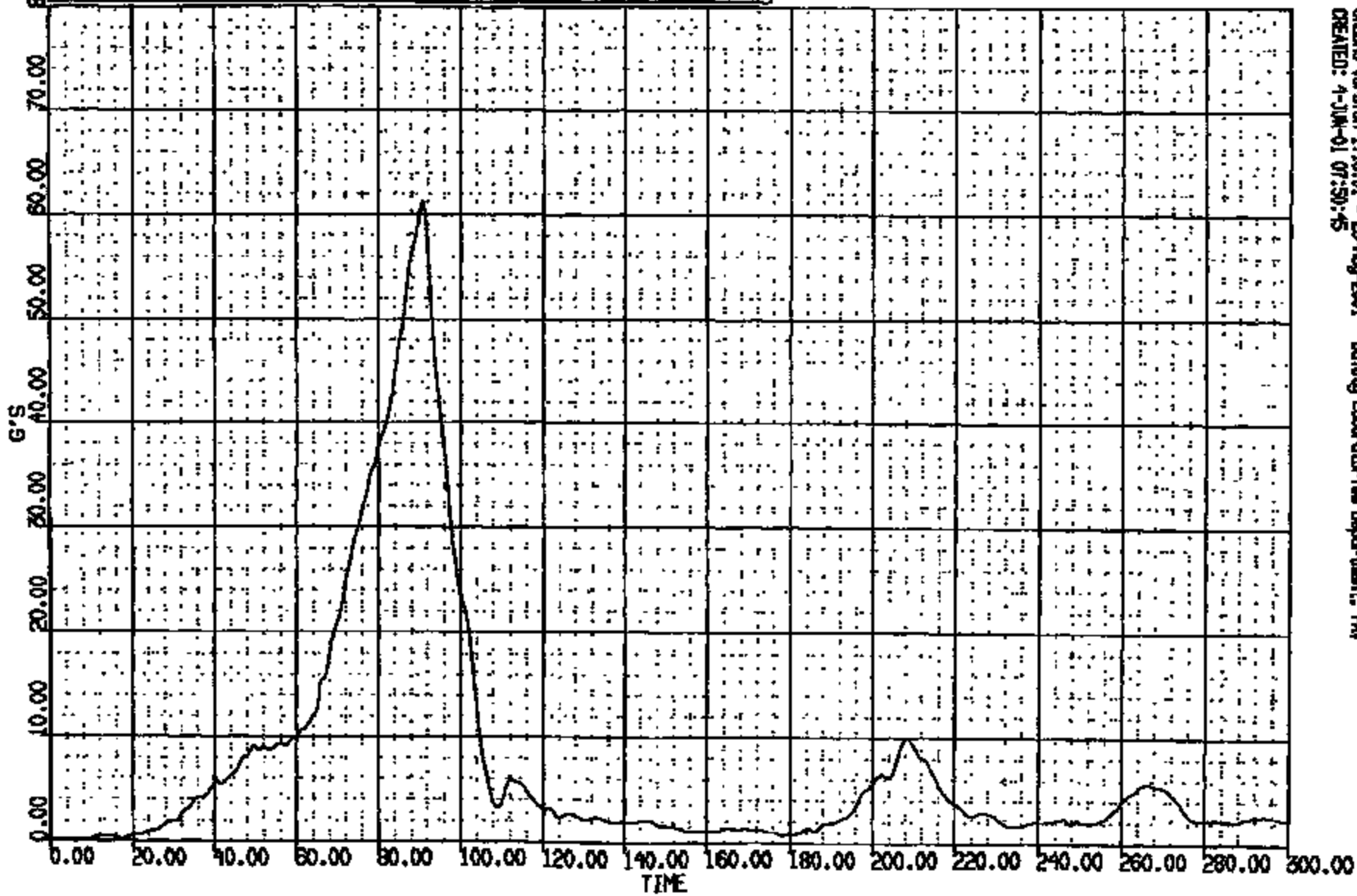
CRS06 Version 1.18.01 - 29-May-2001 Safety Laboratories Department, NAV  
CREATED: 4-JUN-01 09:21:16

CRIS 0012060

WPK R: 12060 TO: TC1850 DATE: 001106 18:31:14  
WPK D: 188  
DUMOUR = 57.481 Duration time = 2.9985

(10009) CR12060T R/F DUMMY CHEST RES 180N  
MAX = 61.33 at 90.72 NS MIN = 0.1011 at 6.400 NS

AXIS 1

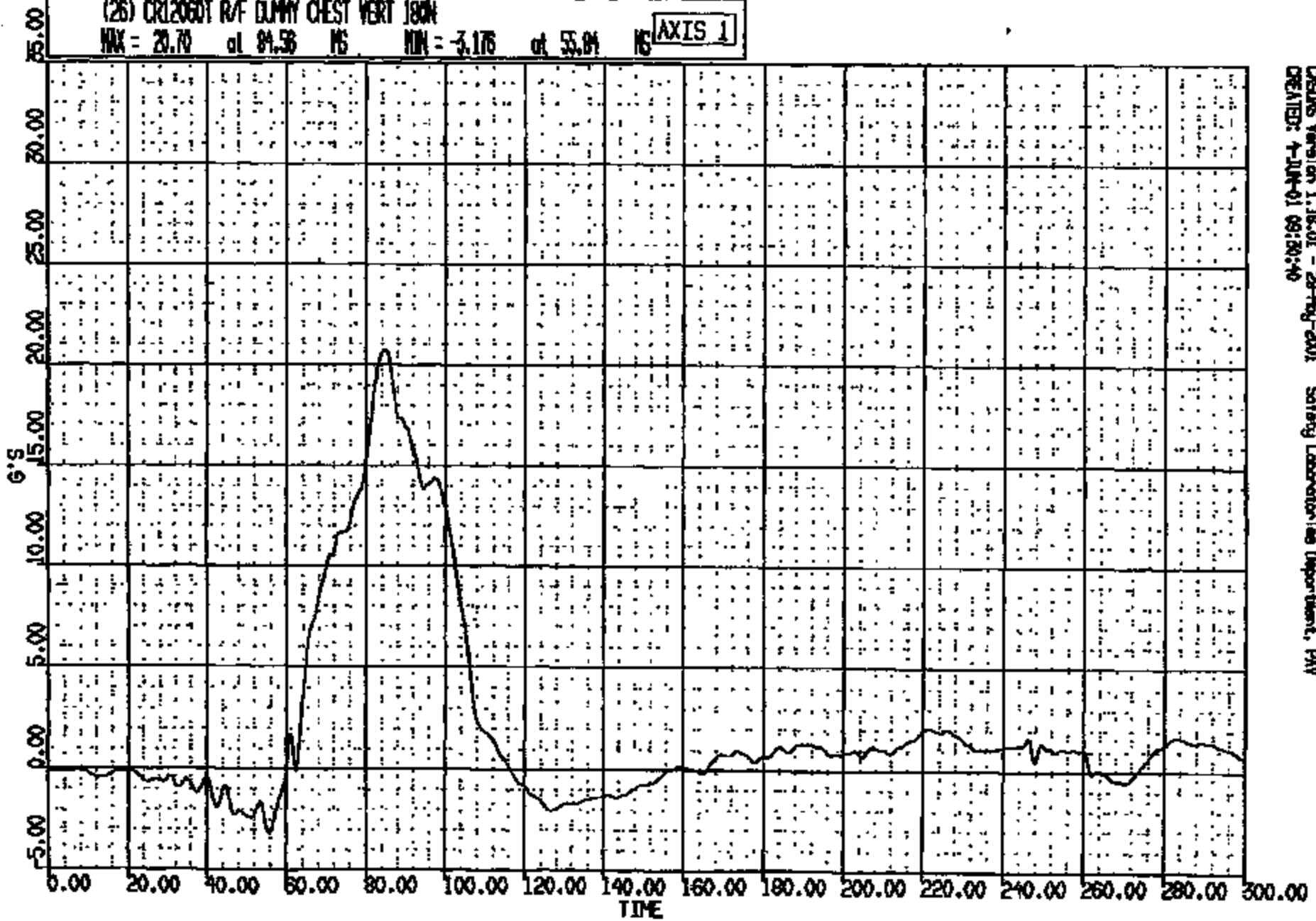


CRIS Version 1.18.01 - 29-May-2001 Safety Laboratory Test Department, PNY  
CREATED: 4-JUN-01 07:50:45

CRIS 0012060

CR R: 12050 TO: TC1850 DATE: 001106 18:31:14  
2000 DISB

(26) CR12060T R/F DUMMY CHEST VERT 180N  
MAX = 20.79 at 84.56 MS MIN = -3.176 at 55.84 MS AXIS 1



CRSUS Version 1.16.01 - 28-Feb-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:30:40

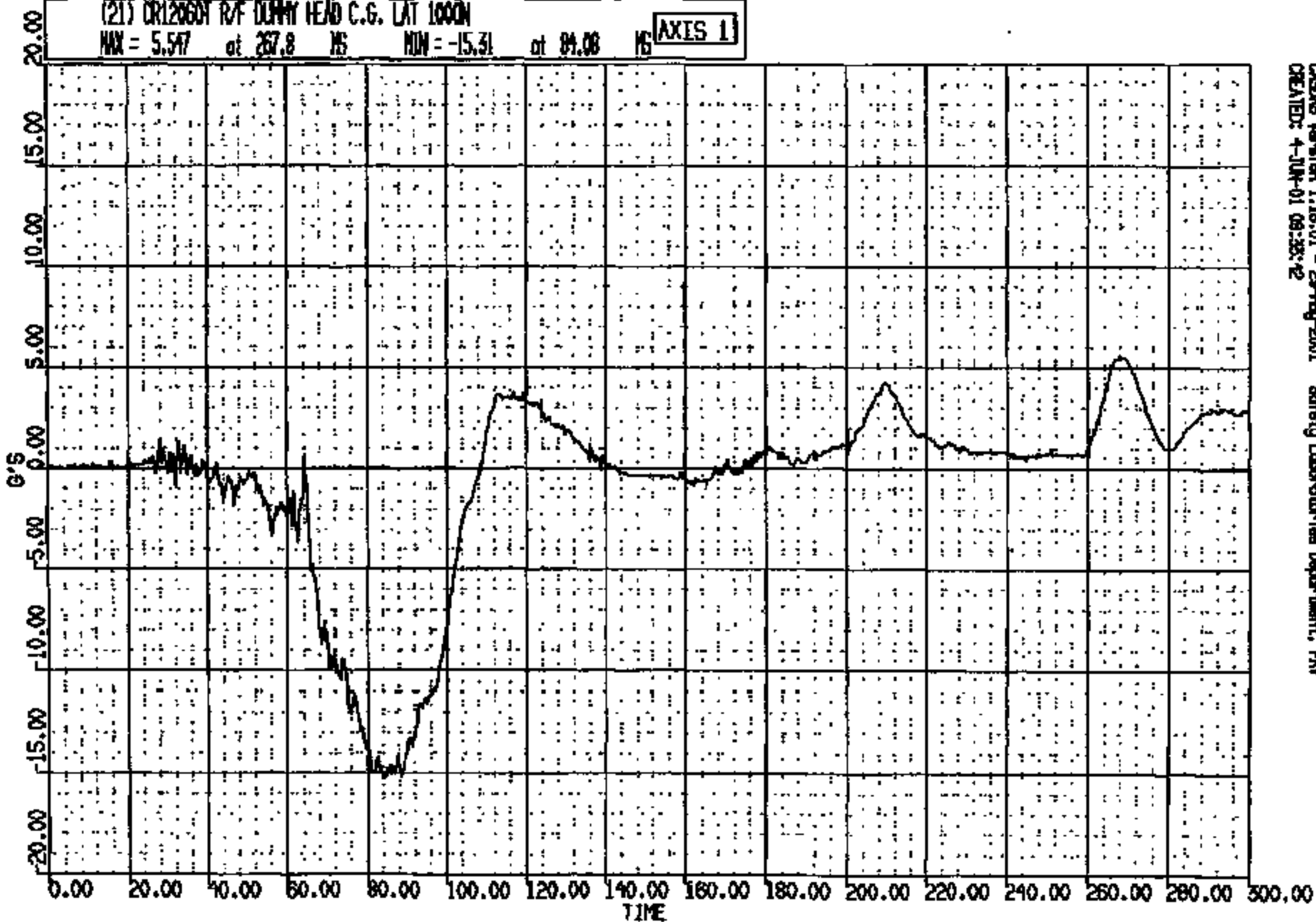
CRIS 0012060

CR R: 12060 TO: TC1230 DATE: 001106 16:31:14  
2000 0188

(21) CR12060 R/F DUMMY HEAD C.G. LAT 1000N

MAX = 5.547 at 267.8 MS MIN = -15.31 at 84.08 MS

AXIS 1



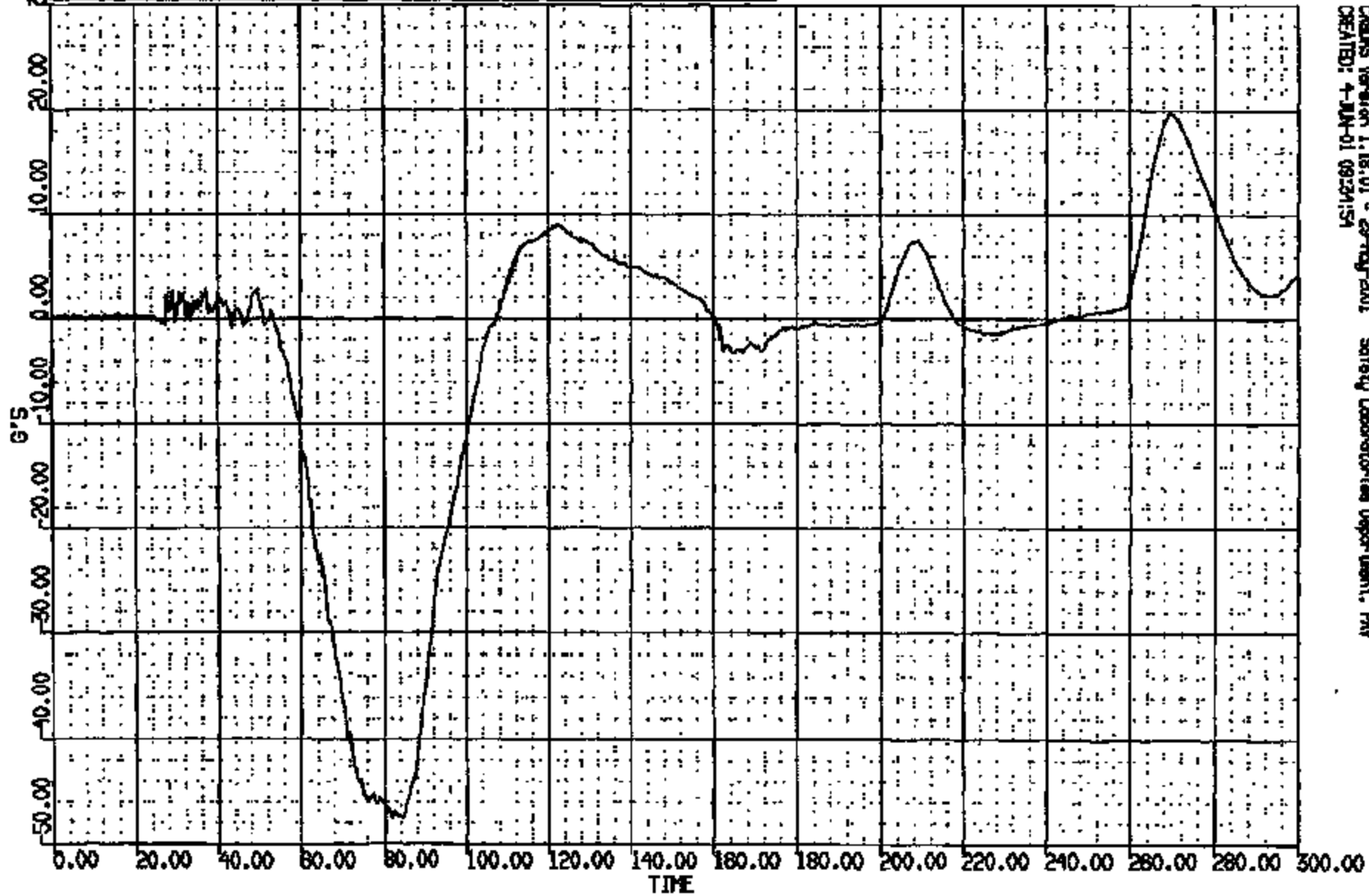
CRS06 Version 1.16.01 - 29-May-2001 Safety Laboratories Department, PNV  
CREATED: 4-JUN-01 09:38:42

CRIS 0012060



07 # : 12080 TC: TC1830 DATE: 001104 18:31:14  
0000 0188

(19) CR12080T R/F DUMMY HEAD C.G. LONG 1000N  
MAX = 19.77 at 289.5 MS MIN = -47.62 at 81.82 MS **AXIS 1**

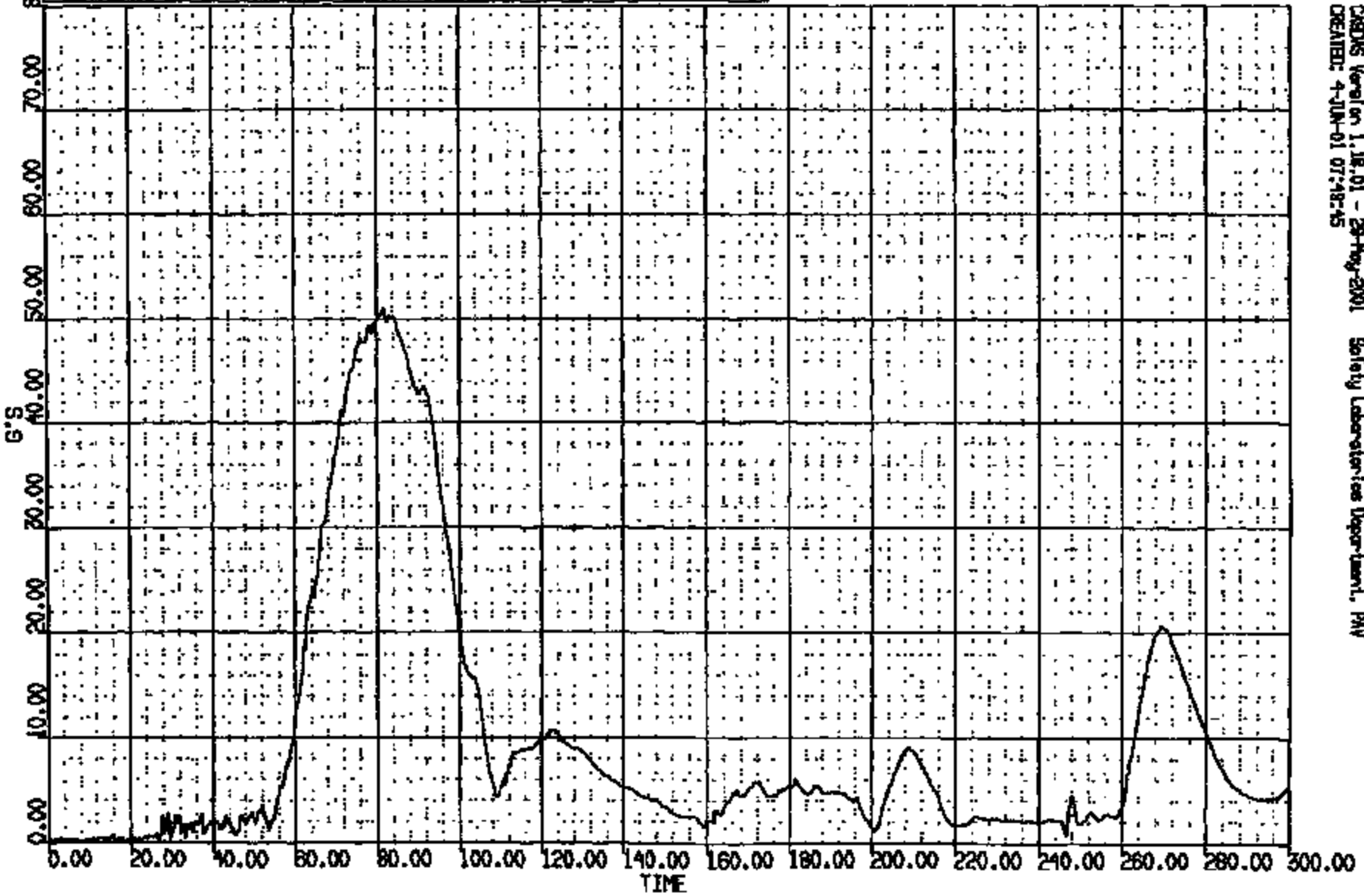


CRAMS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:24:54

CR12080T 0012060

TO: TC1850 DATE: 001106 16:31:14  
 D: 1800  
 DUR: 240.0 T1/T2: 00.4 // 00.0  
 DUR: 60.0 T1/T2: 00.4 // 00.0  
 DUR: 18.0 T1/T2: 78.8 // 00.0

(10001) CR12060 R/F DUMMY HEAD C.G. RES 1000N  
 MAX = 51.00 at 81.00 MS MIN = 0.715E-01 at 19.04 MS **AXIS 1**

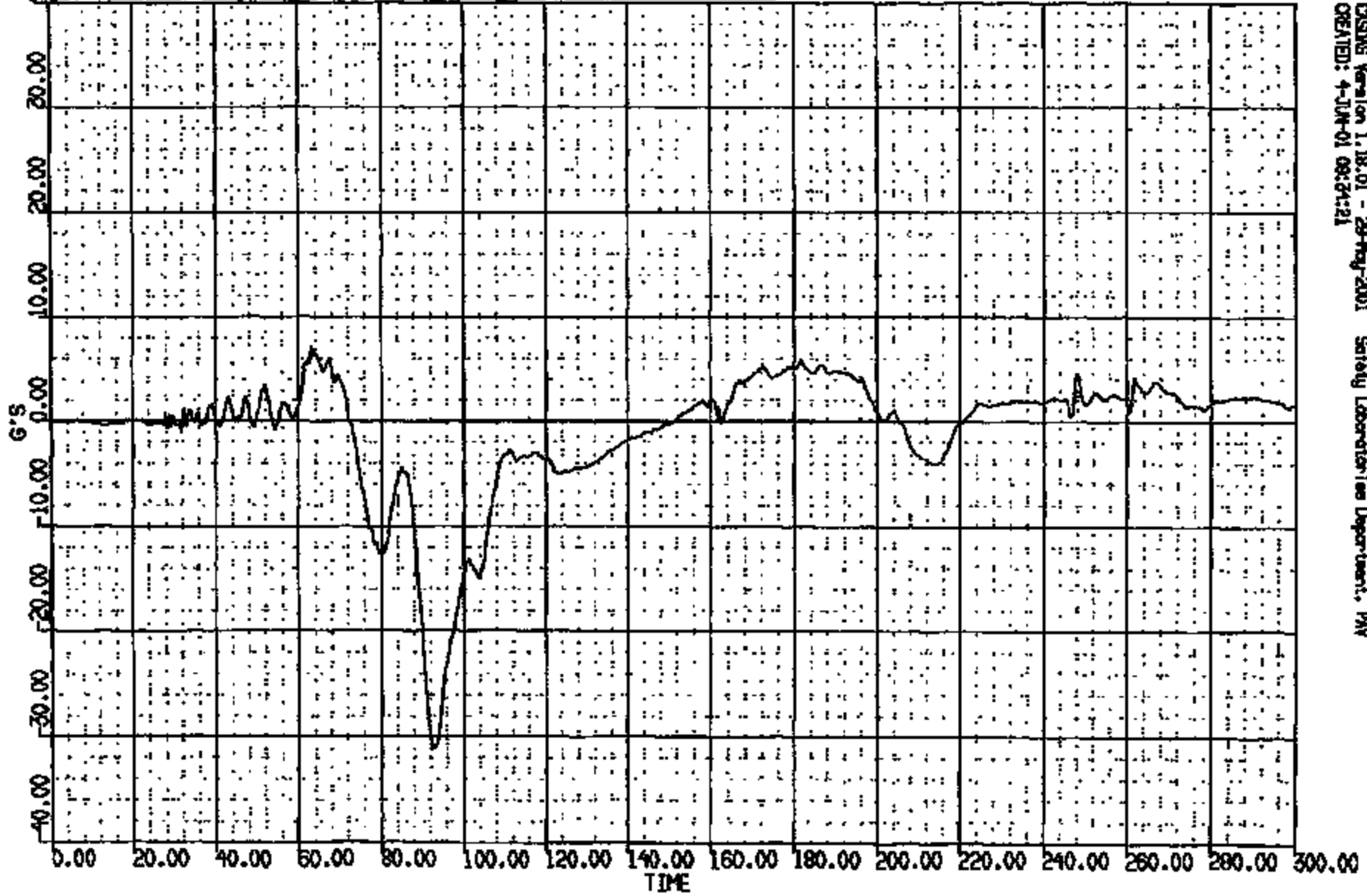


CRASH Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
 CREATED: 4-JUN-01 07:42:45

CRTS 0012060

CR R: 12060 TO: TC1830 DATE: 001106 18:31:14  
2000 D188

(20) CR12060T R/F DUMMY HEAD C.G. VERT 1000N  
MAX = 6.987 at 63.12 HS MIN = -31.19 at 92.72 HS **AXIS 1**

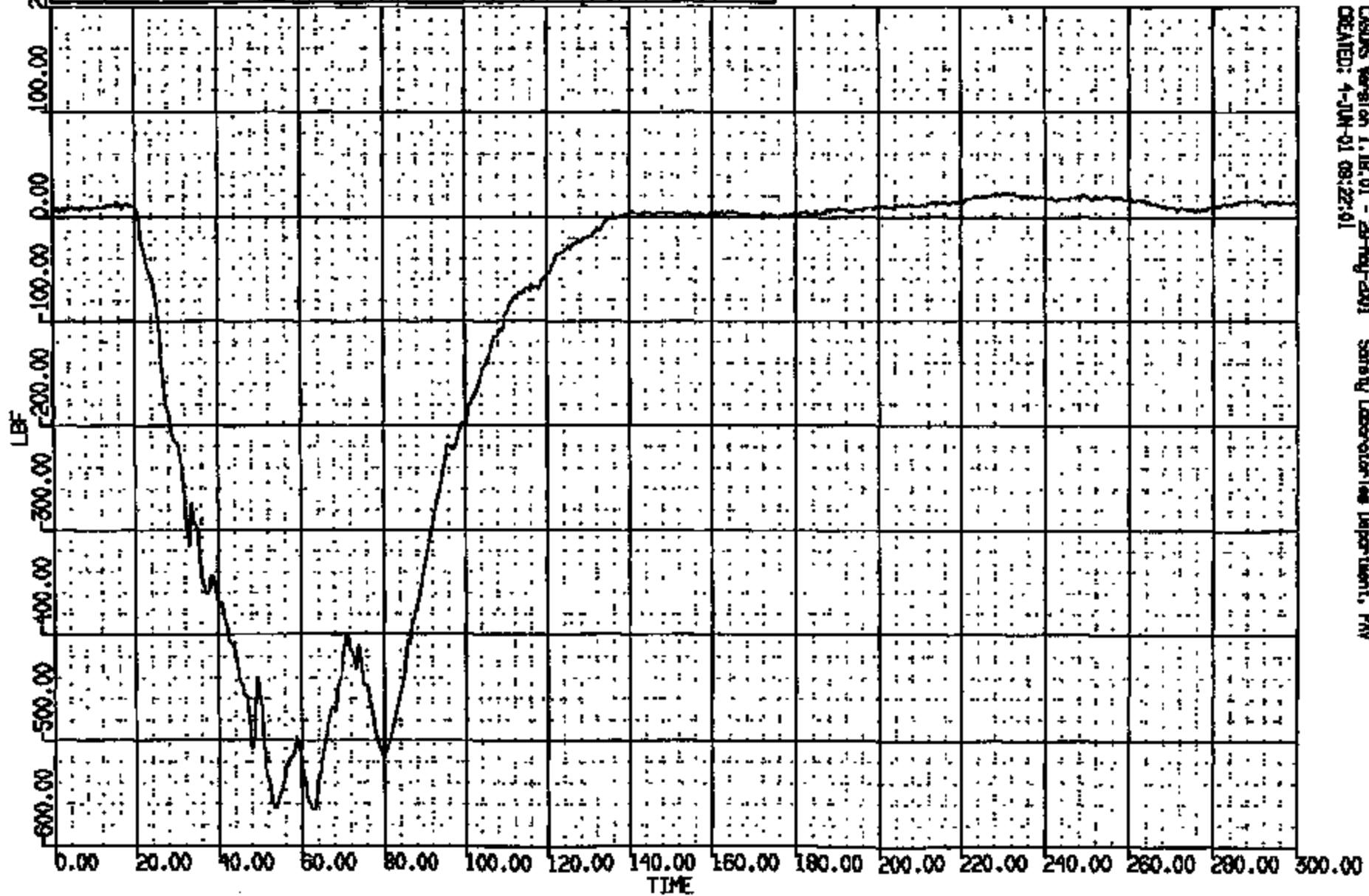


CRTS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAV  
CREATED: 4-JUN-01 08:24:21

CRTS 0012060

CR #: 12060 TO: TC1830 DATE: 001108 18:31:14  
2000 D188

(35) CR12060T R/F DUMMY LA/FEPLR LOAD FZ 600N  
MAX = 25.70 at 230.9 MS MIN = -555.6 at 82.96 MS **AXIS 1**

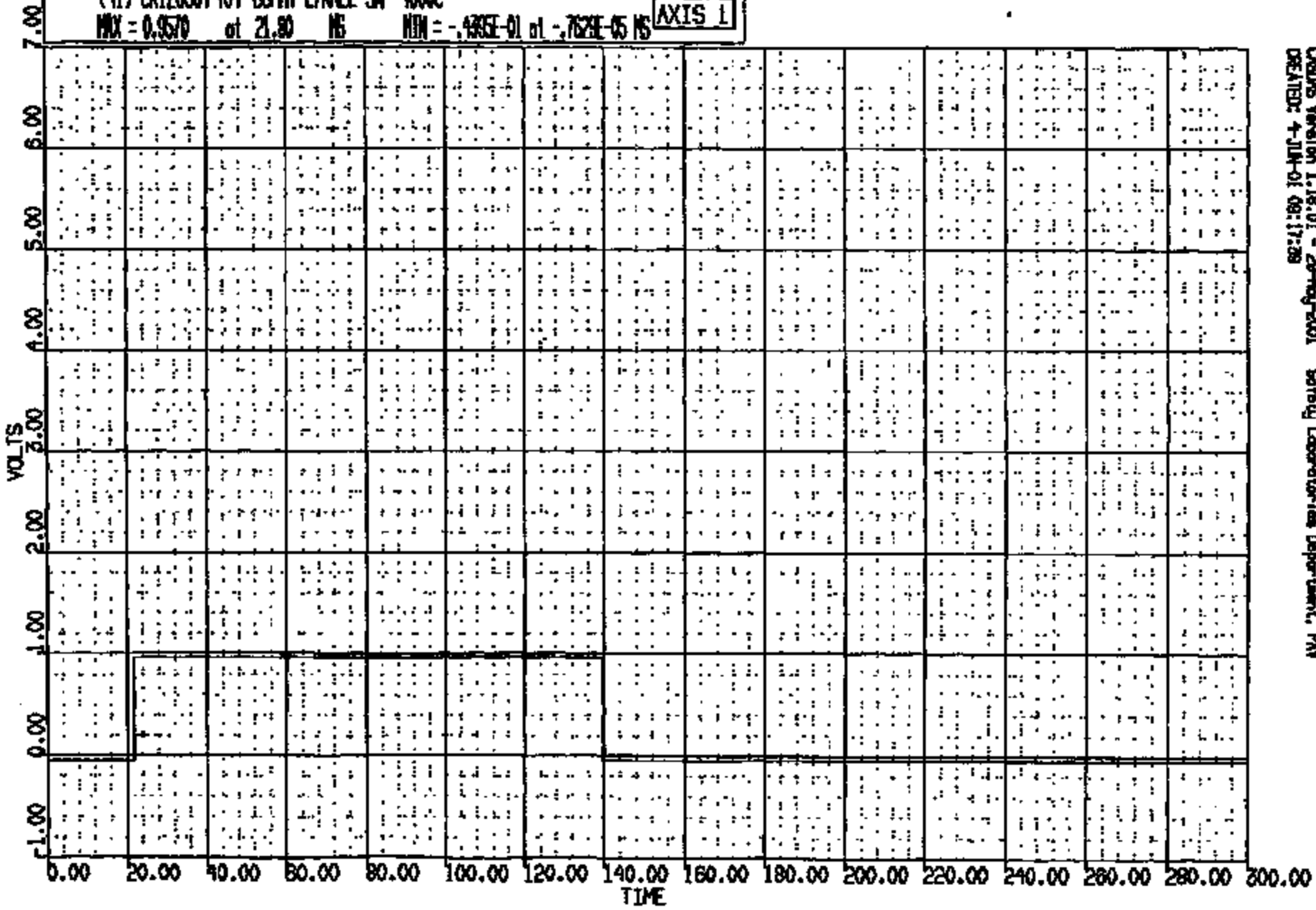


CRS05 Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:22:01

CRTS 0012060

CR #: 12060 TO: TC1650 DATE: 001102 16:51:14  
2000 D166

(41) CR120601 R/F DUMY L/KNEE SH 400C  
MAX = 0.9570 at 21.80 MS MIN = -.435E-01 at -.762E-05 MS **AXIS 1**

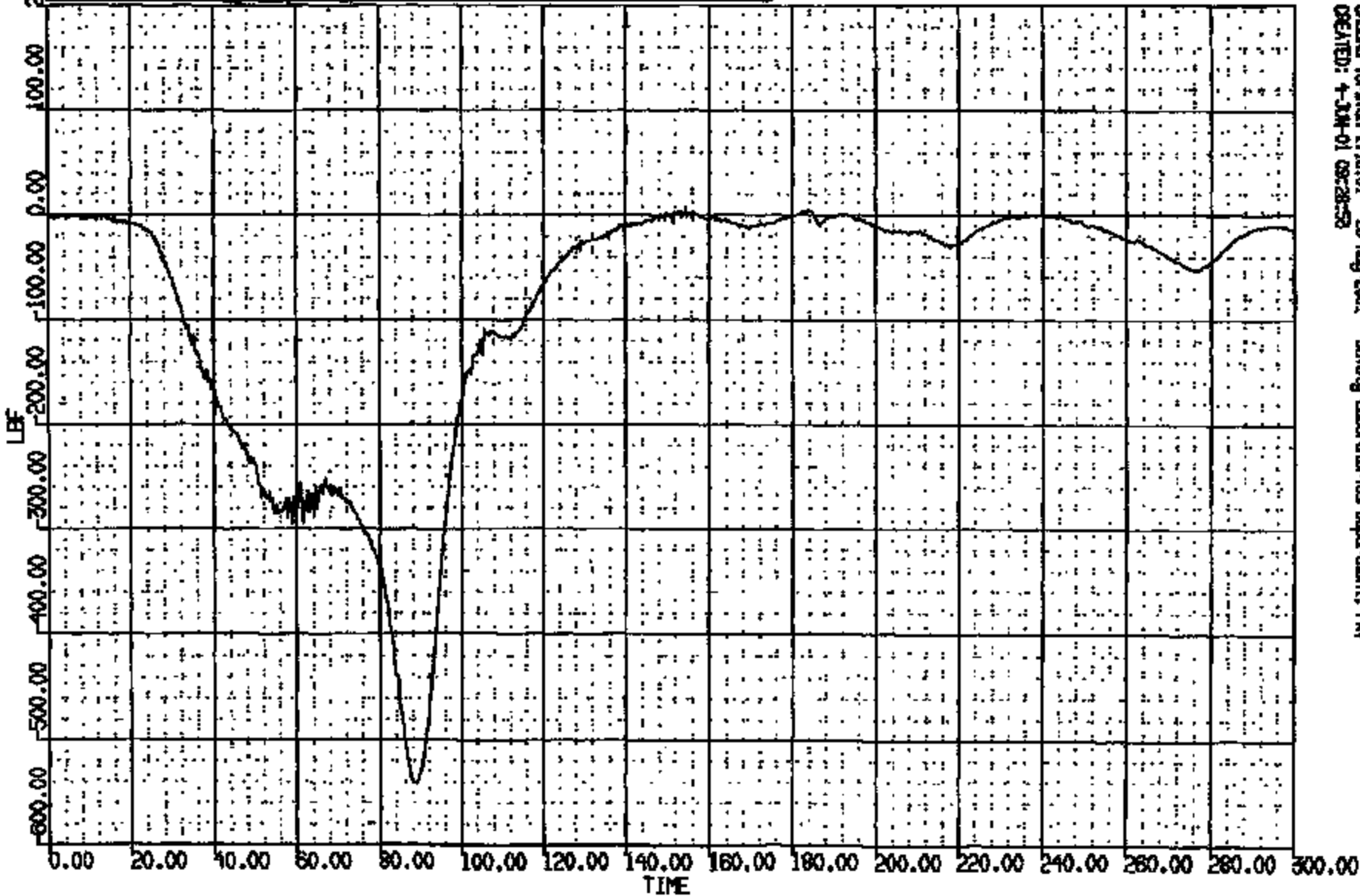


CASYS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:17:28

CRTS 0012060

CR R: 12060 TO: TC1830 DATE: 001106 18:31:14  
2000 D188

(29) CR12060T R/F DUMMY LUMBAR SPINE LOAD FX 1000N  
MAX = 7.21 at 151.4 MS MIN = -541.7 at 88.40 MS **AXIS 1**



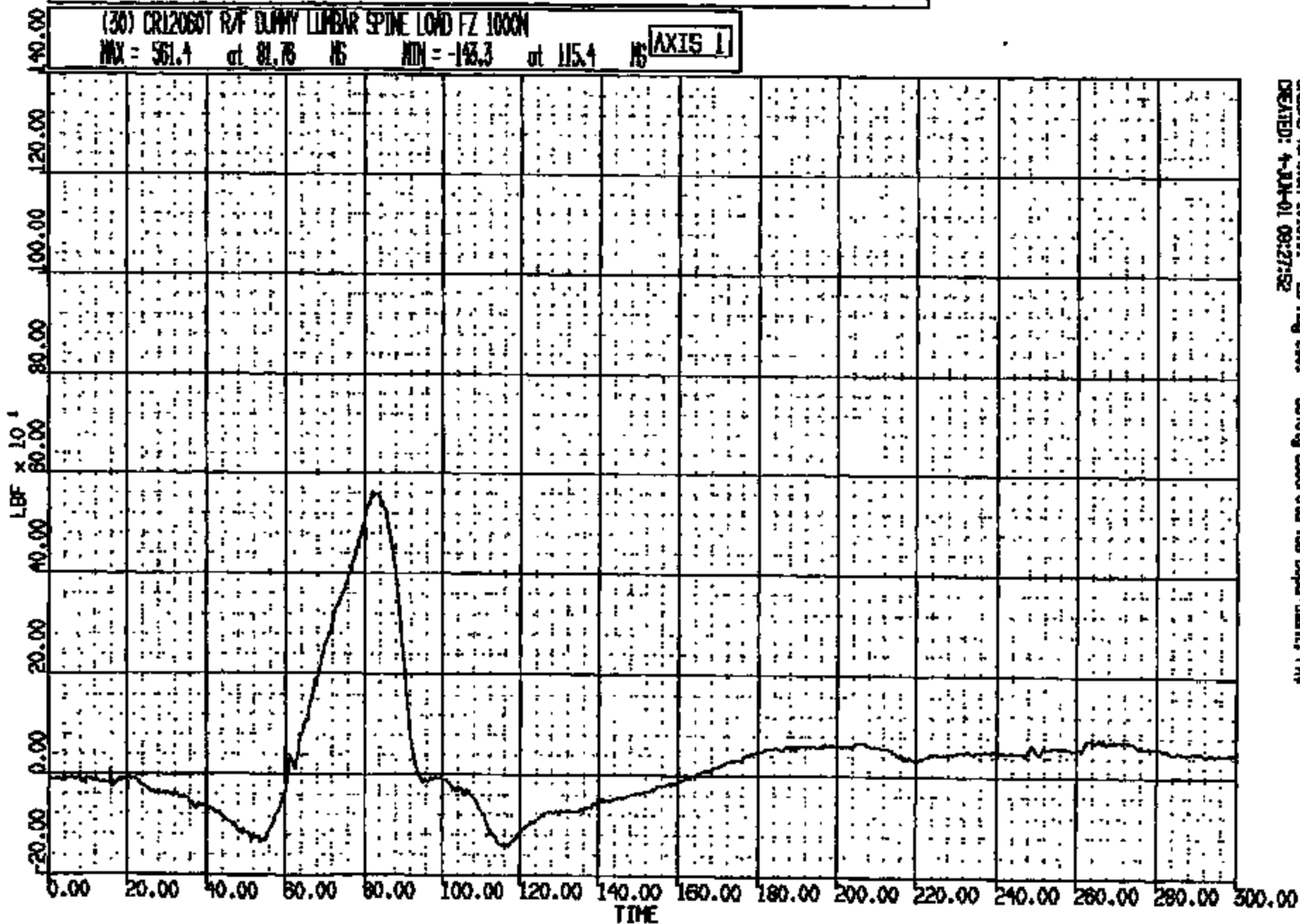
CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 08:28:53

CA #: 12060 TD: TC1830 DATE: 001106 18:31:14  
2000 D188

(30) CR12060T R/F DUMMY LINEAR SPINE LOAD FZ 1000N

MAX = 561.4 at 81.76 MS MIN = -193.3 at 115.4 MS

AXIS 1

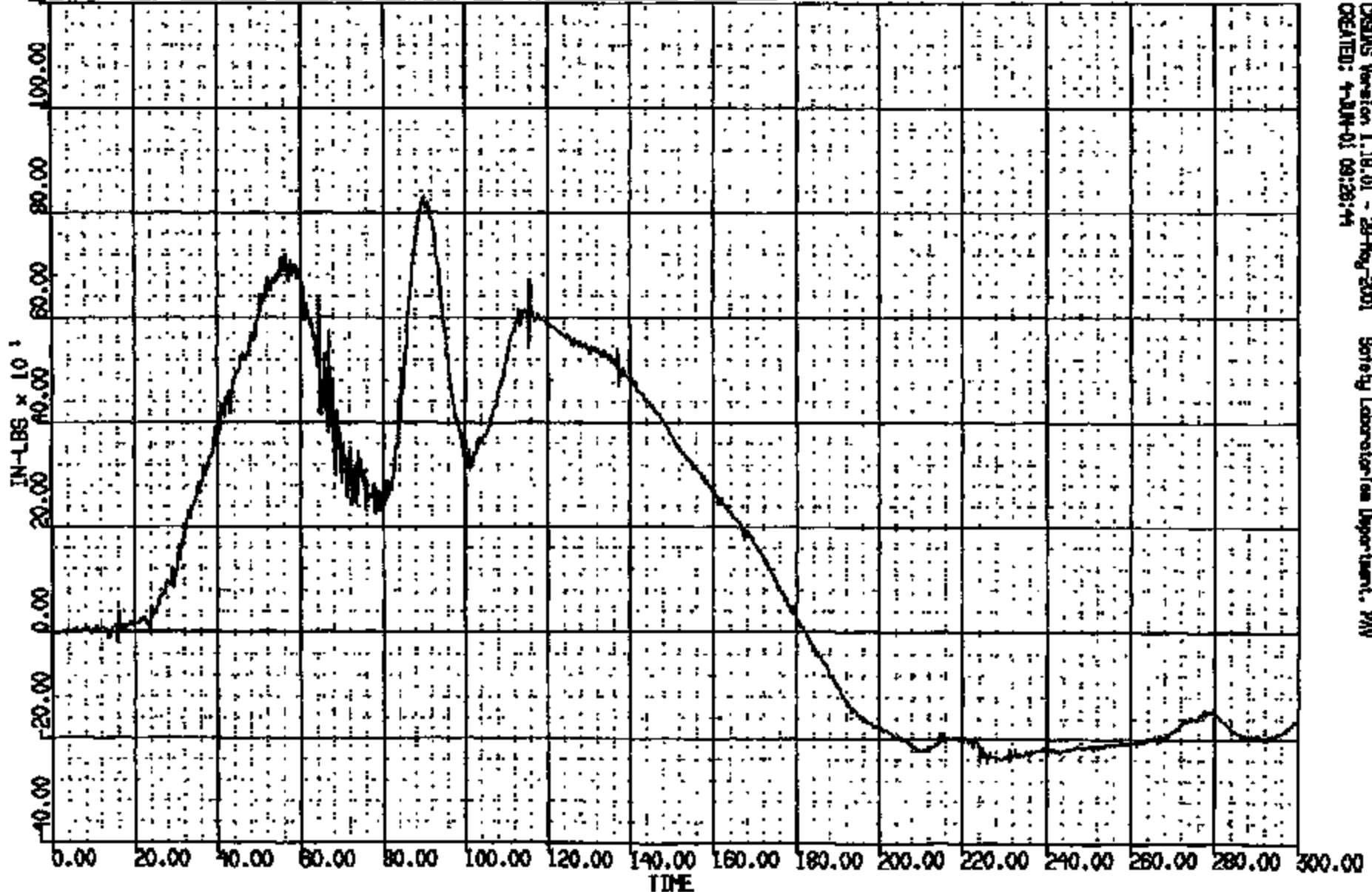


CRSIS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PMW  
CREATED: 4-JUN-01 09:27:52

CRIS 0012060

Q7 R: 12080 TO: TC1830 DATE: 001106 16:31:14  
2000 Digs

(31) CR12060T R/F DUMMY LUMBAR SPINE LOAD MY 1000N  
MAX = 850.0 at 90.00 MS MIN = -244.5 at 225.9 MS **AXIS 1**



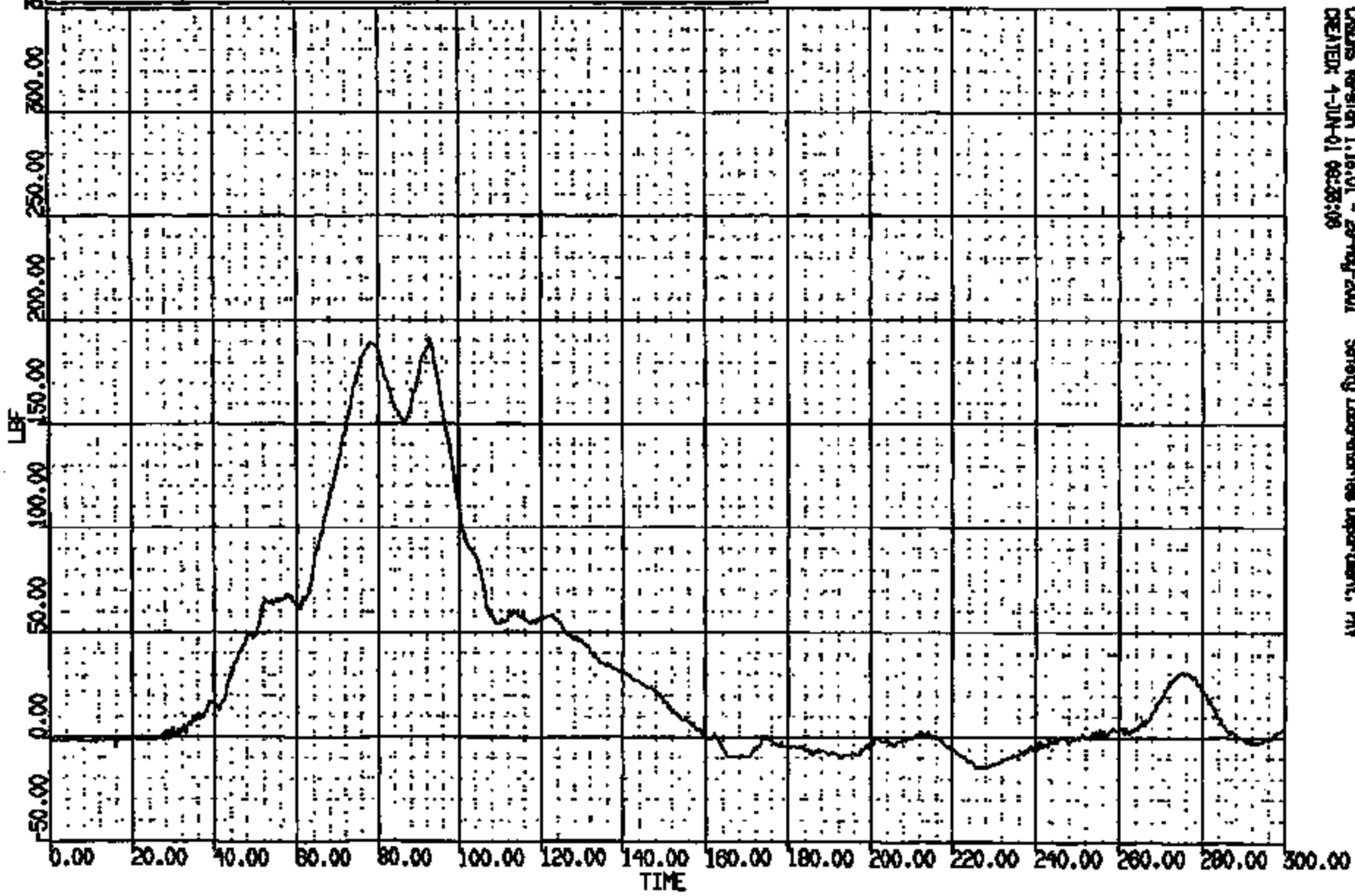
CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PIV  
CREATED: 4-JUN-01 09:28:44

CRTS 0012060



CA R: 12080 TO: TC1830 DATE: 001106 16:31:14  
2000 D188

(22) CR120601 R/F DUMMY NECK UPPER LOAD FX 1000N  
MAX = 191.0 at 92.96 MS MIN = -15.06 at 227.1 MS **AXIS 1**

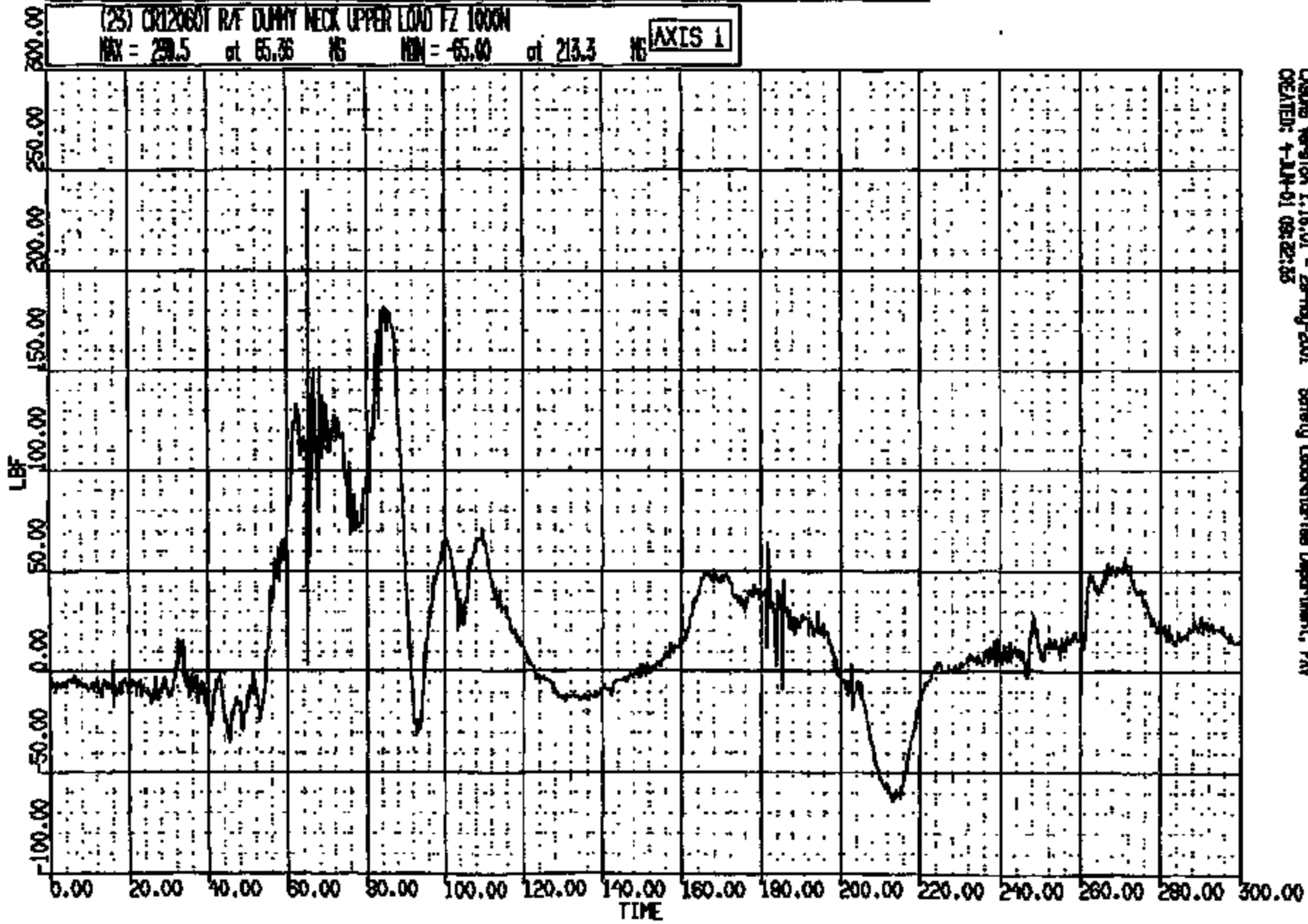


CRSIS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PIY  
CREATED: 4-JUN-01 09:28:09

CRIS 0012060

CA R: 12060 TO: TC1830 DATE: 001108 16:51:14  
2000 DISB

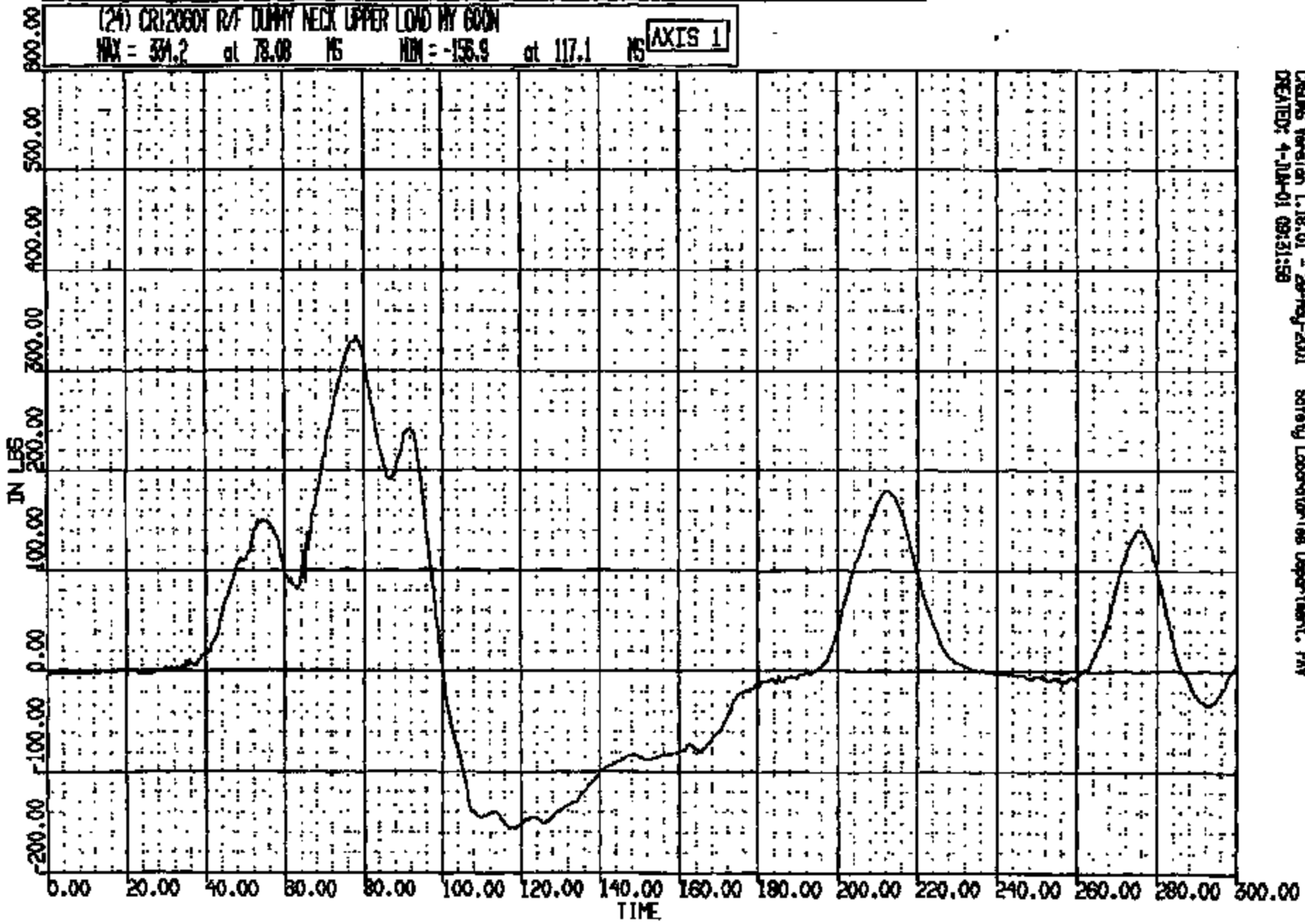
(25) CR020601 R/F DUMMY NECK UPPER LOAD FZ 1000N  
MAX = 230.5 at 65.36 MS MIN = -65.00 at 213.3 MS **AXIS 1**



CASYS Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 08:22:35

CRTS 0012060

IN R: 12060 TO: TC1830 DATE: 00110L 18:31:14  
3000 DISB

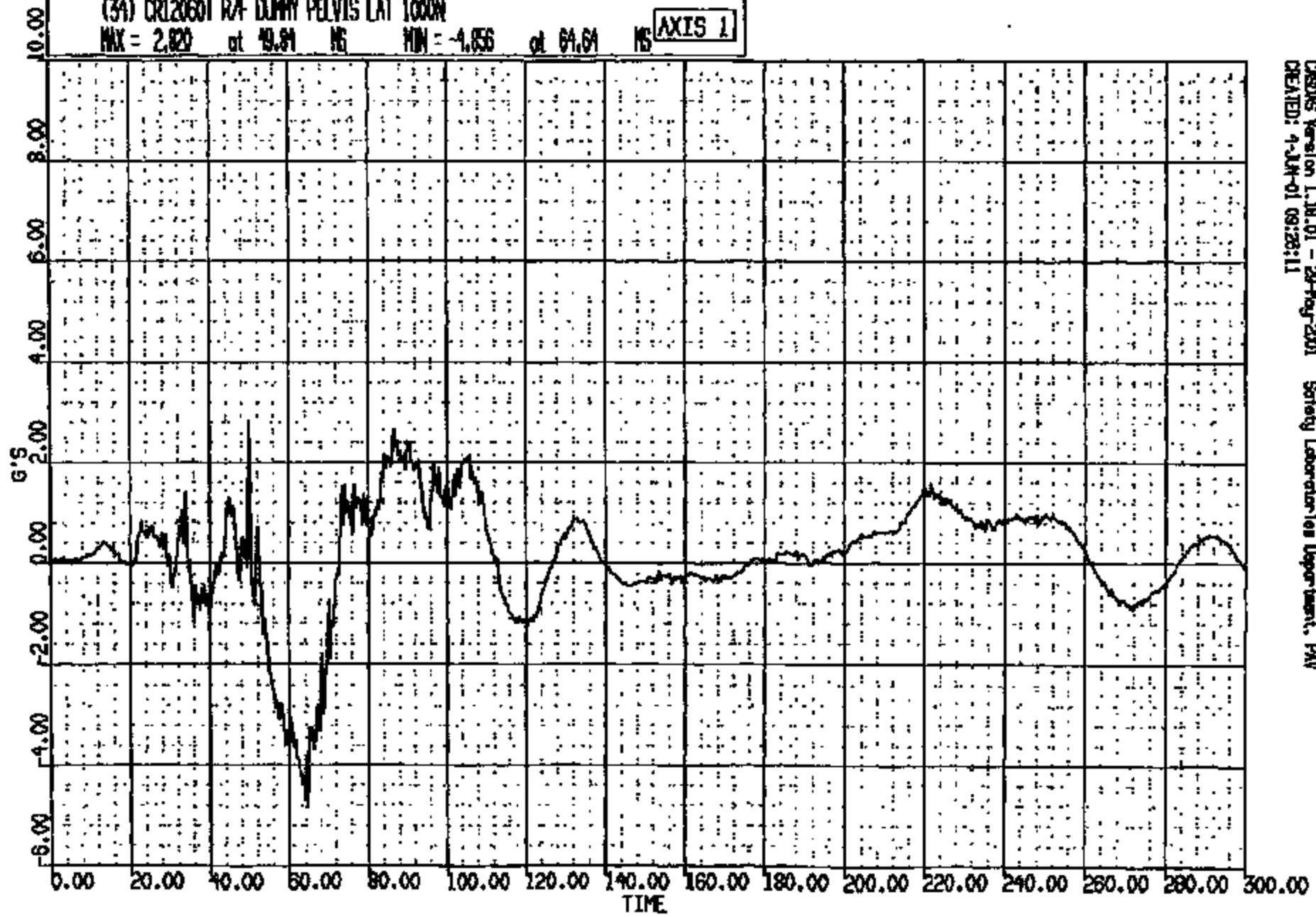


CADMS Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:31:58

CRTS 0012060

CH R: 12060 TO: TC1850 DATE: 001102 18:51:14  
2000 D188

(34) CR120601 R/F DUMMY PELVIS LAT 1000N  
MAX = 2.829 at 49.64 MS MIN = -4.856 at 64.64 MS **AXIS 1**

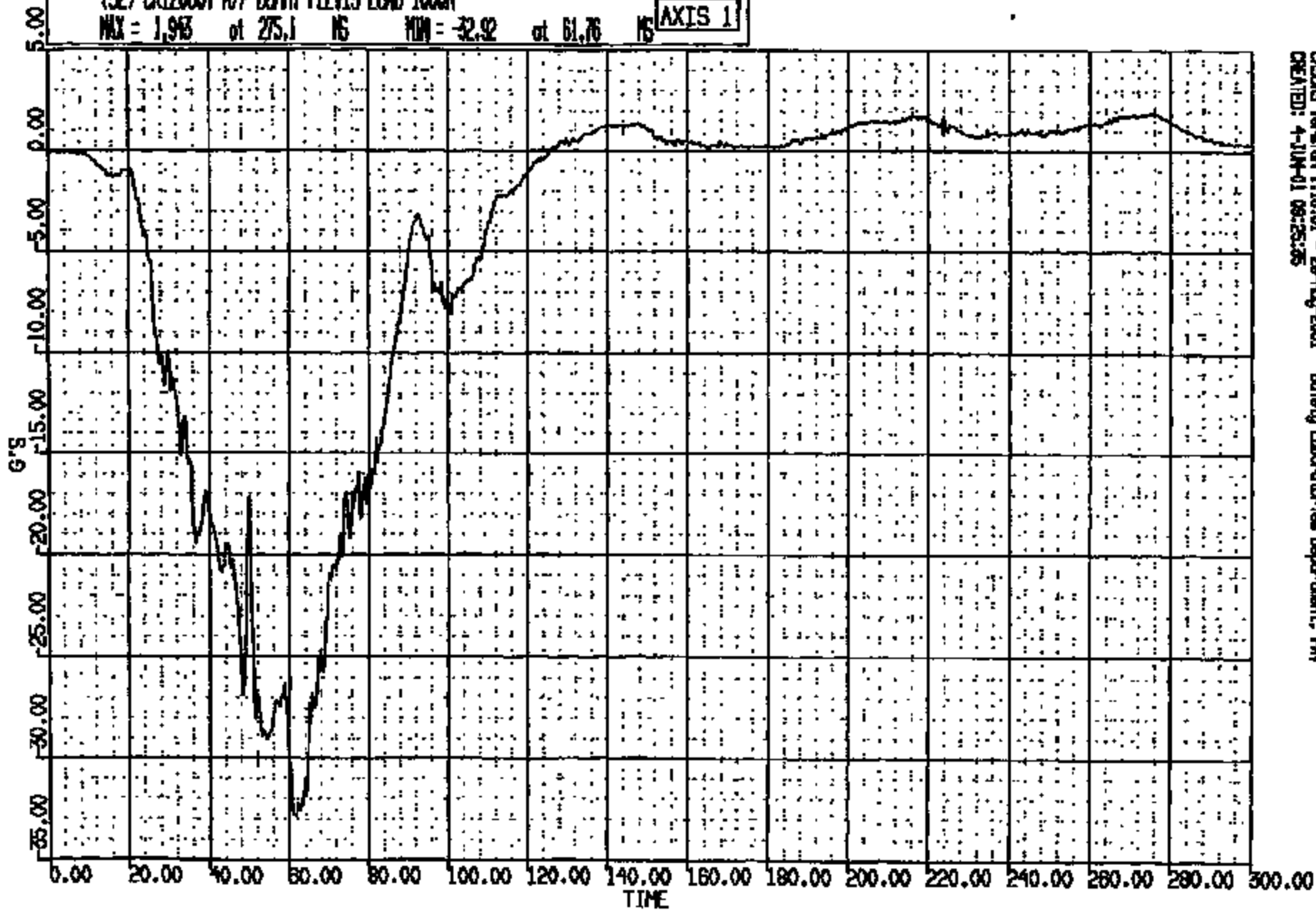


CHSOS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:28:11

CRTS 0012060

CH. R: 12060 TO: TC1830 DATE: 001104 18:31:14  
2000 D188

(32) CR120601 R/F DUMMY PELVIS LONG 1000H  
MAX = 1.93 at 275.1 MS MIN = -32.92 at 61.76 MS **AXIS 1**

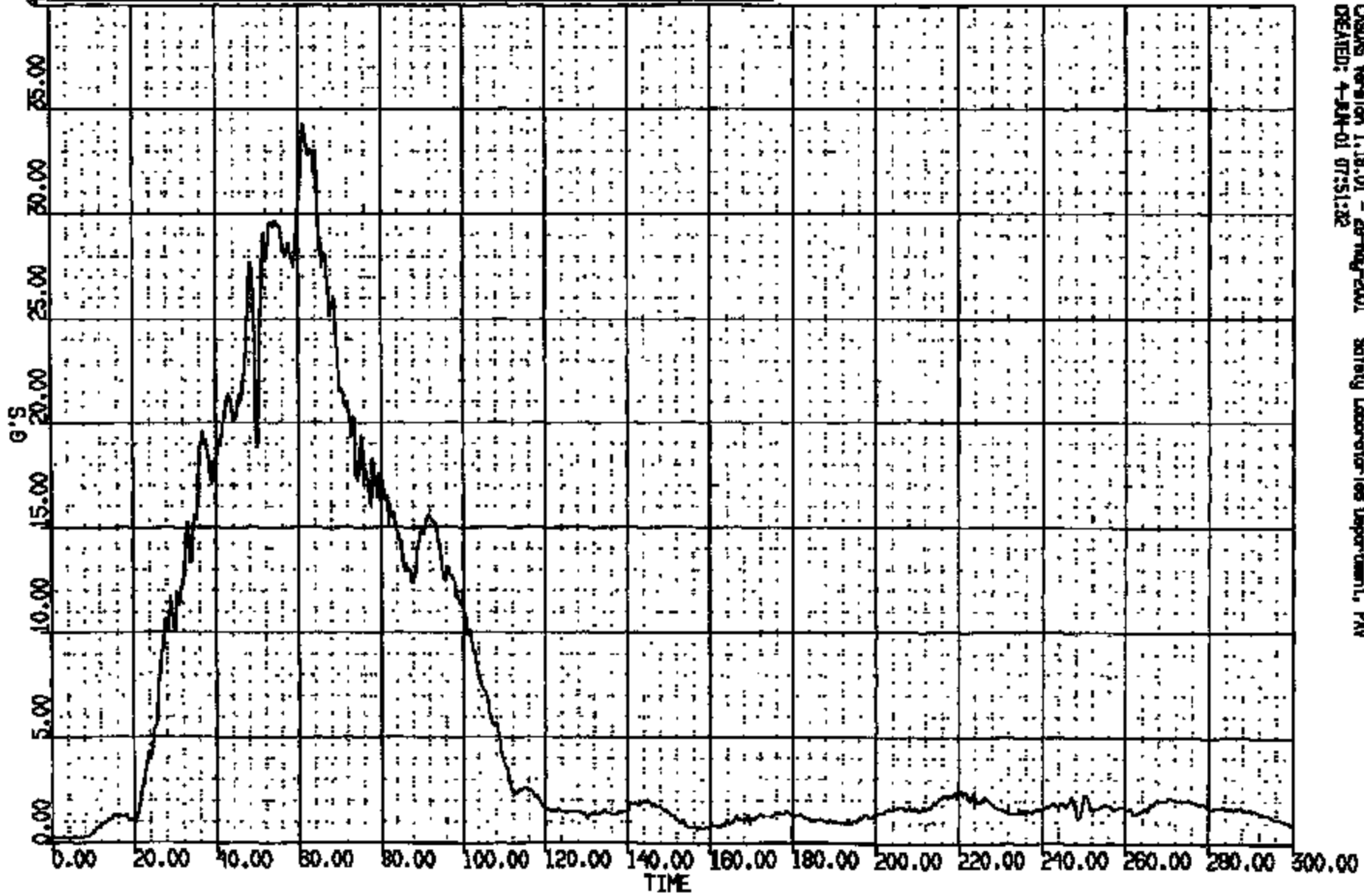


CRSIS Version 1.18.01 - 28-May-2001 Briefly Laboratories Department, PAW  
CREATED: 4-JUN-01 08:25:26

CRIS 0012060

CR R: 12060 TO: TC1630 DATE: 001106 18:51:14  
2000 D198

(10013) CR12060T R/F DUMMY PELVIS RES 1000N  
MAX = 34.25 at 61.20 MS MIN = 0.1701 at 6.400 MS **AXIS 1**

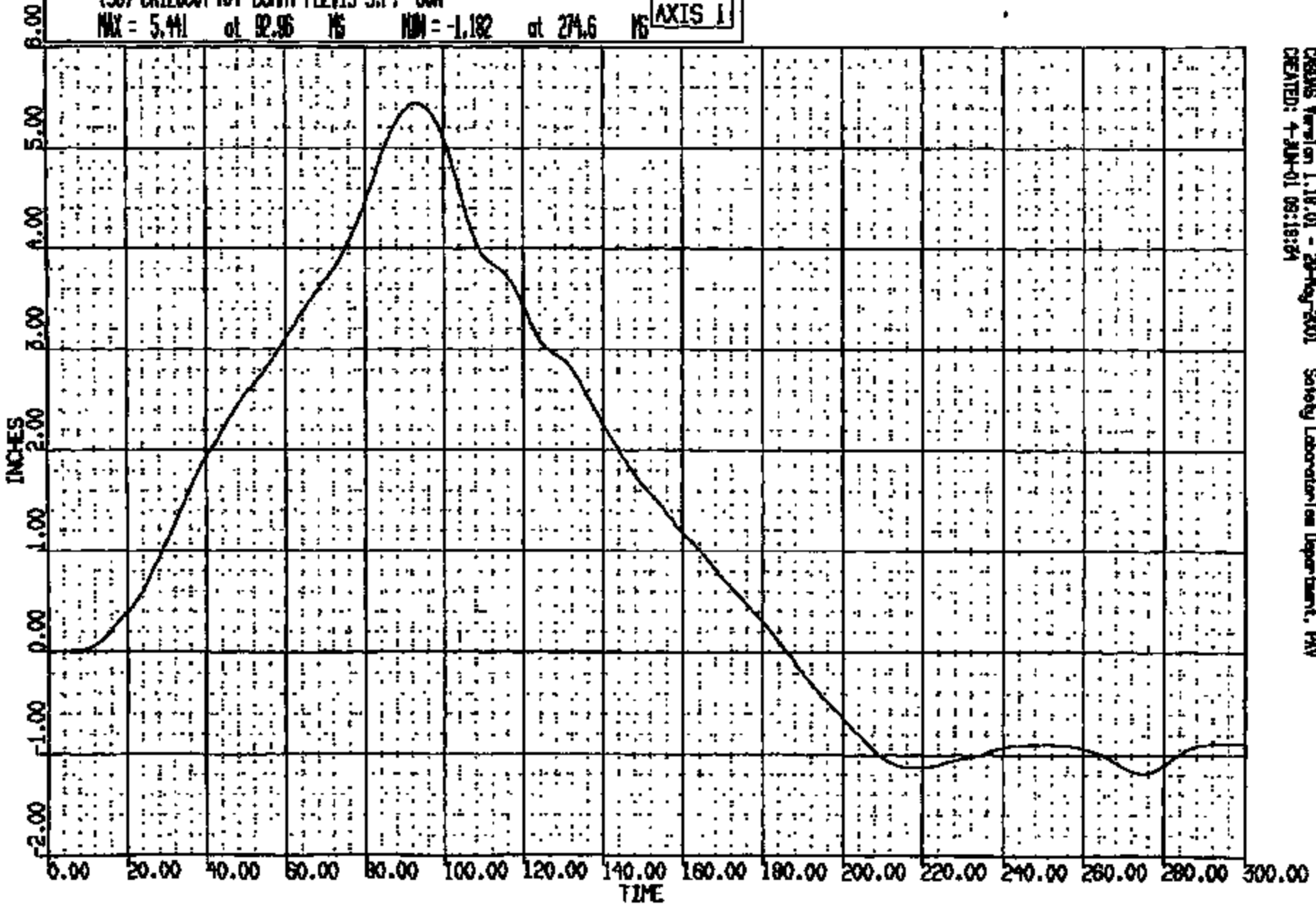


CRSNGS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 07:51:32

CRTS 0012060

CR R: 12060 TC: TC1830 DATE: 001106 18:51:14  
2000 D188

(38) CR12060T R/F DUMMY PELVIS S.P. 60N  
MAX = 5.41 at 92.95 MS MIN = -1.182 at 274.6 MS **AXIS 1**

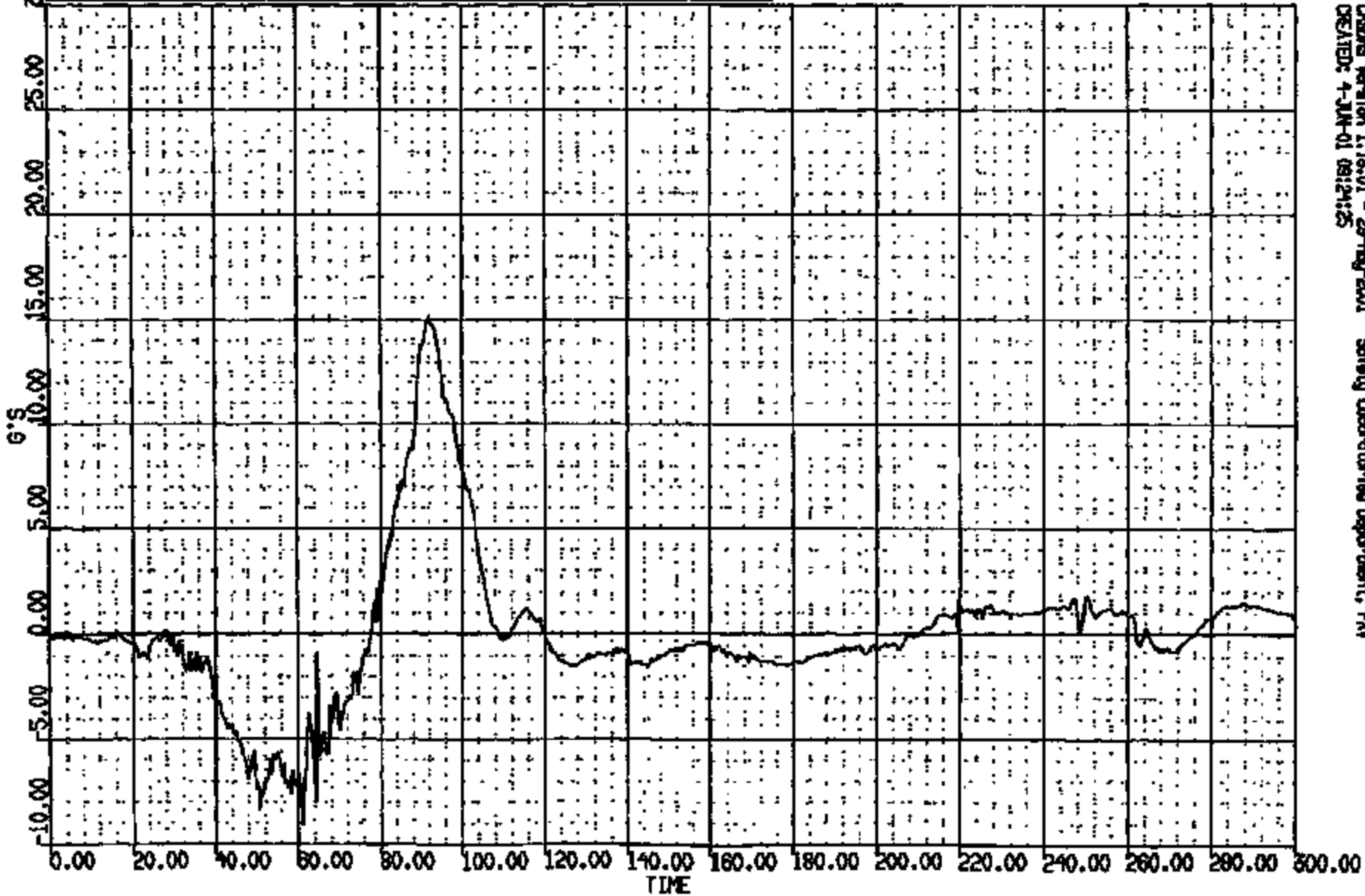


CREDS Version 1.18.01 - 29-May-2001 Safety Laboratory Department, PAW  
CREATED: 4-JUN-01 09:18:24

CRIS 0012060

R: 12060 TO: TC1850 DATE: 001106 18:51:14  
2000 DISB

(33) CR12060T R/F DUMMY PELVIS VERT 10XON  
MAX = 15.01 at 92.08 MS MIN = -9.058 at 61.20 MS **AXIS 1**



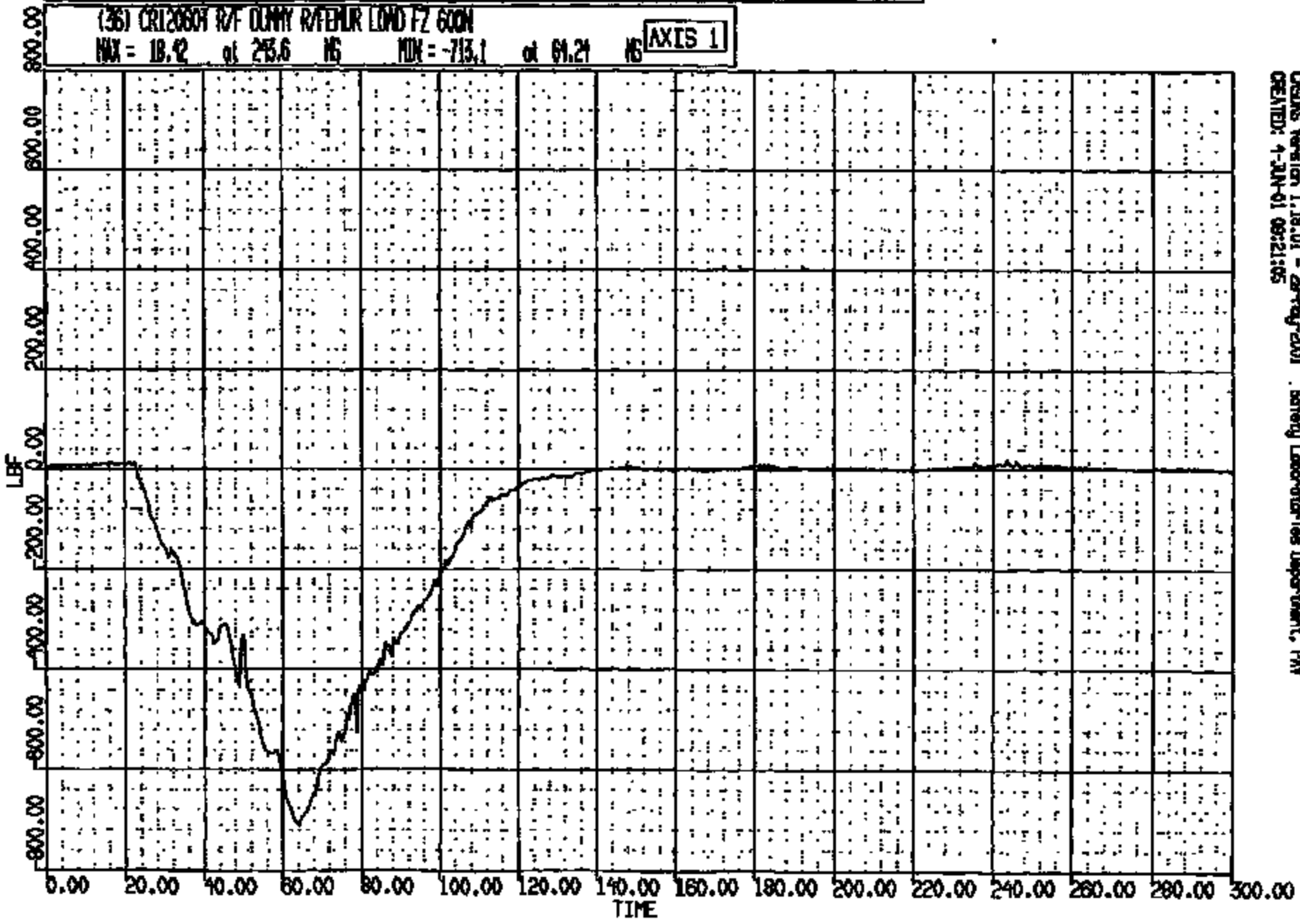
CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PW  
CREATED: 4-JUN-01 08:24:25

CRIS 0012060



CP, R: 12000 TD: TC1850 DATE: 00110L 18:51:14  
8000 0188

(36) CRT20604 RZ DUNNY R/FENR LOND FZ 600N  
MAX = 18.2 at 235.6 MS MIN = -713.1 at 61.21 MS **AXIS 1**



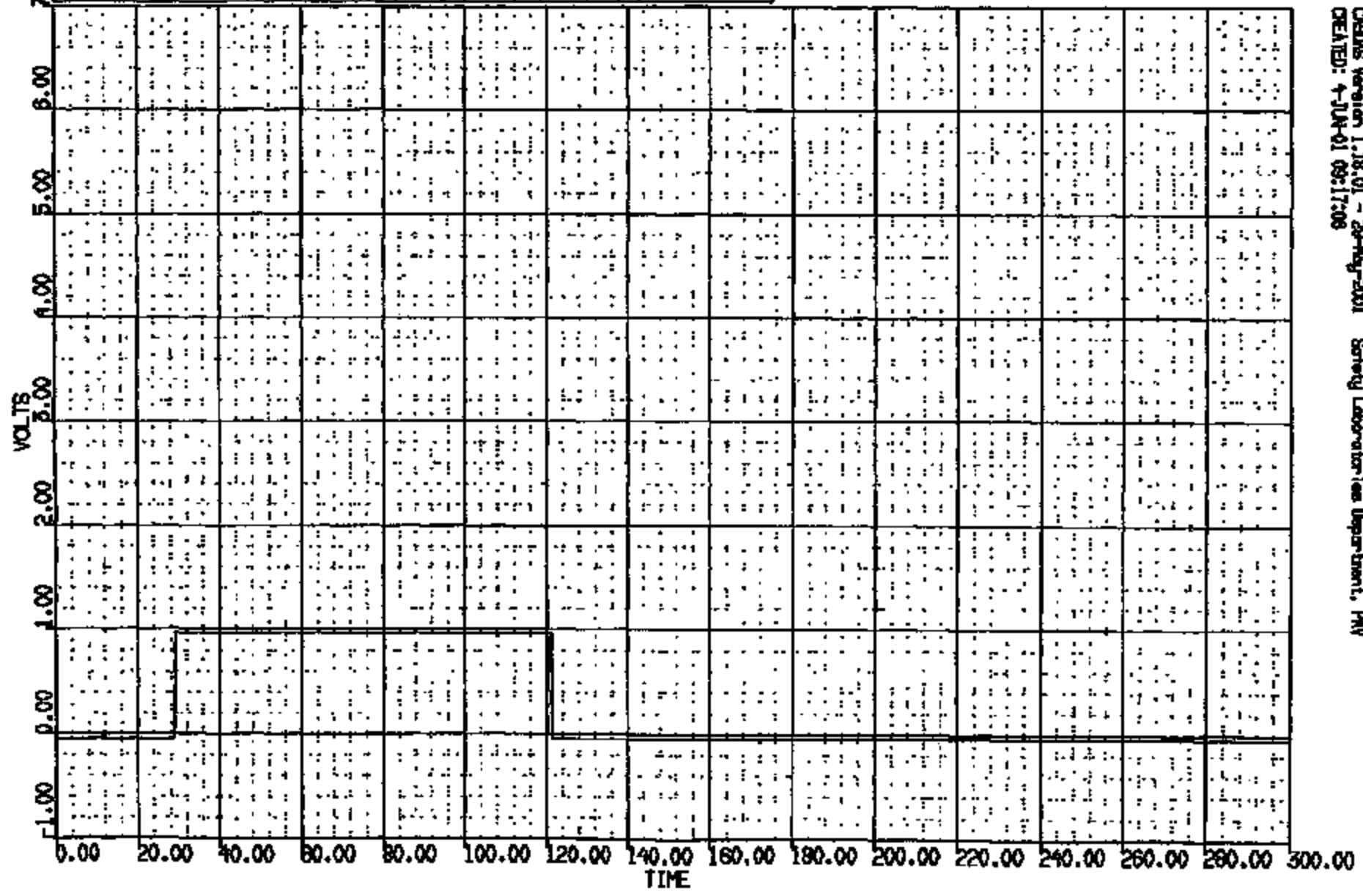
OSGMS Version 1.18.01 - 28-Aug-2001 Safety Laboratories Department, PHV  
CREATED: 4-JAN-01 09:21:05

CRTS 0012060

CA R: 12060 TO: TC1850 DATE: 001106 18:31:14  
2000 D188

(42) CR12060 R/F DUMMY R/ONE SH 4000C  
MAX = 0.9570 at 29.20 NS MIN = -.485E-01 at -.762E-05 NS

AXIS 1

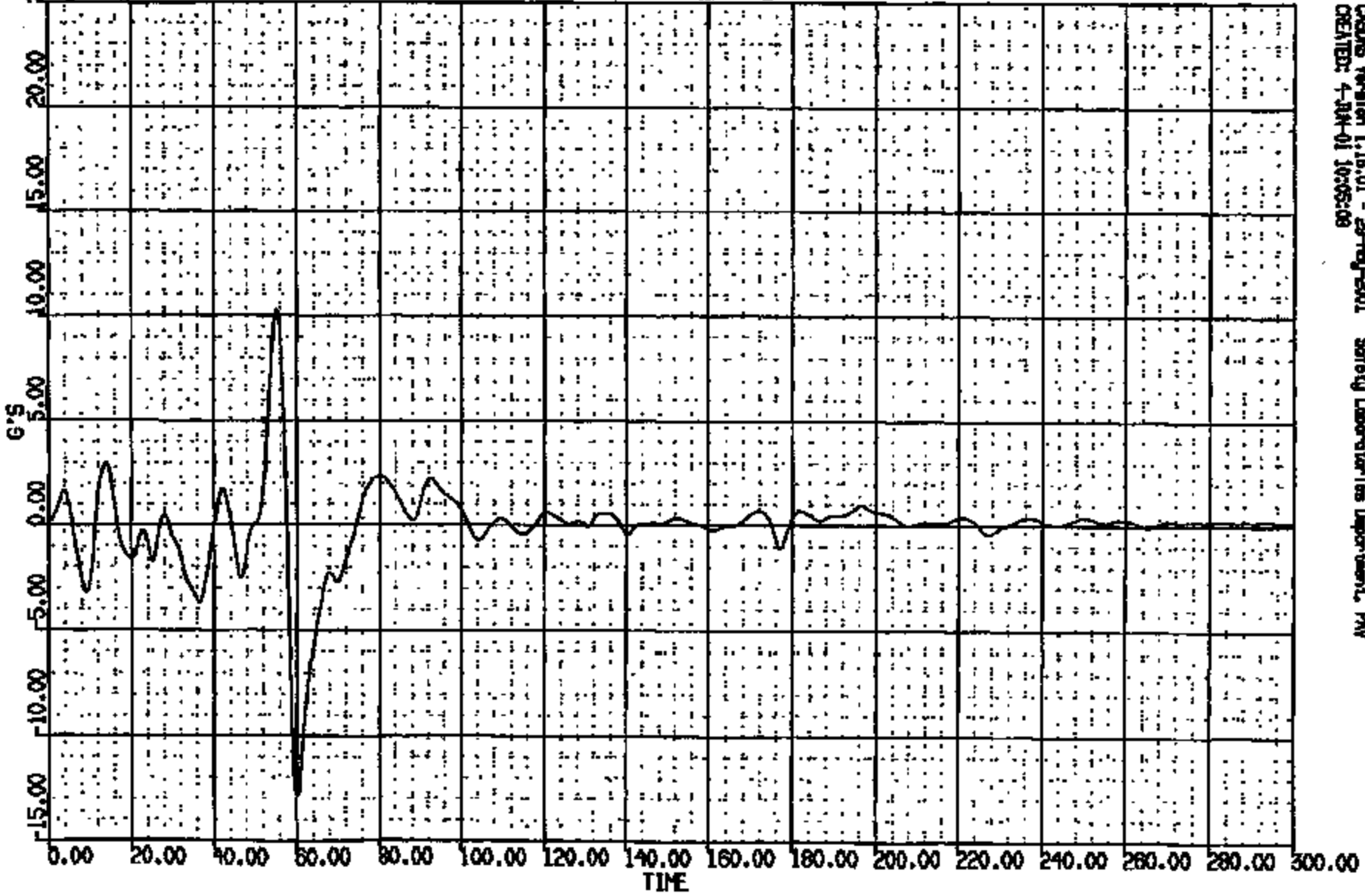


CRSIS Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:17:08

CRIS 0012060

CP R: 12060 TO: TC1850 DATE: 001106 16:51:14  
2000 D186

(74) CR12060T R/F FLR PWD #24PBR CTR SN #4 LAT 60N  
MAX = 10.27 at 55.28 MS MIN = -12.89 at 60.08 MS **AXIS 1**

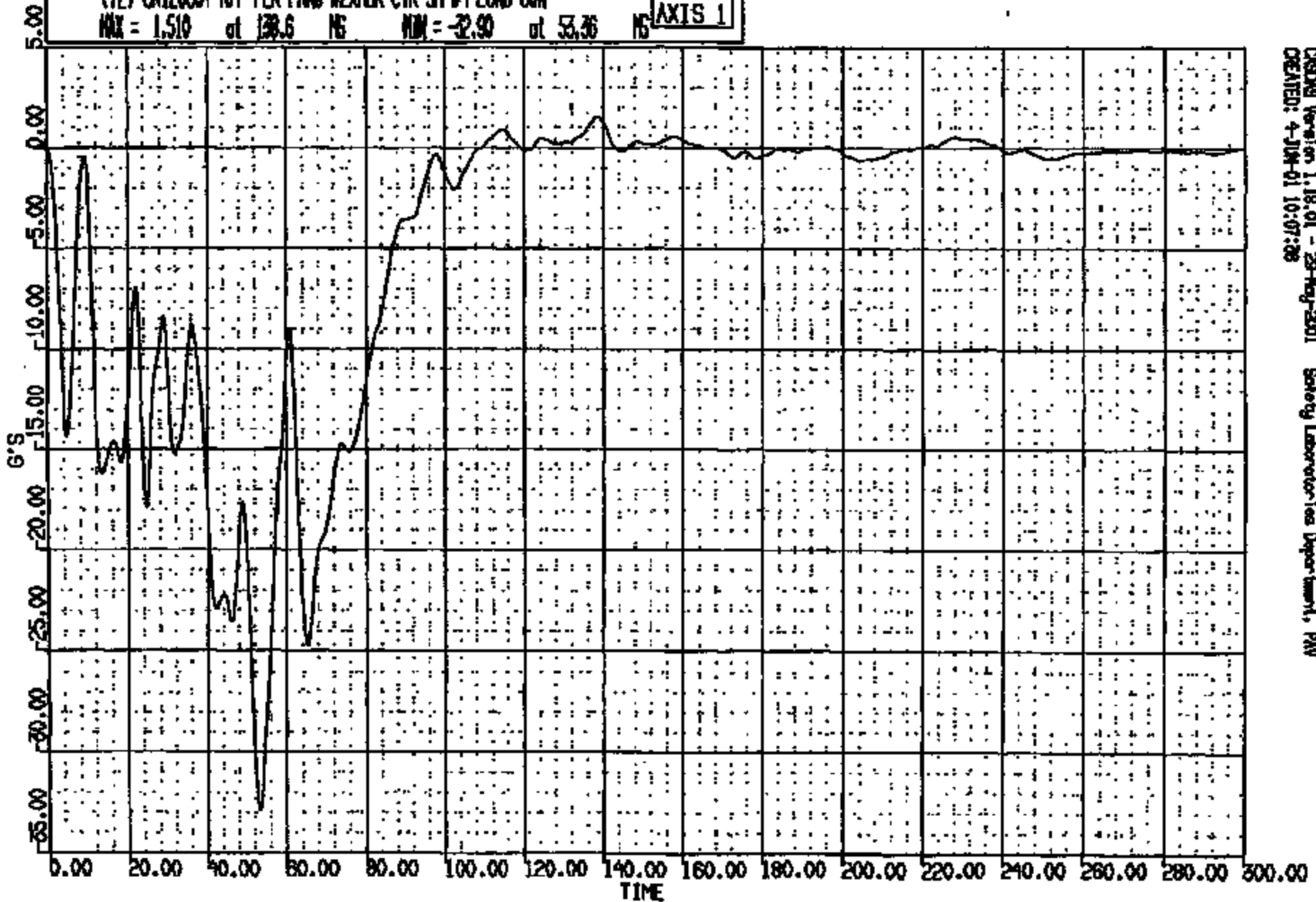


CASINS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNW  
CREATED: 4-RM-01 10:05:08

CRTS 0012060

CR #: 12060 TO: TC1830 DATE: 001108 16:31:14  
2000 D188

(72) CR12060T R/F FLR PWD #201ER CTR SH #4 LONG 60M  
MAX = 1.510 at 138.6 MS MIN = -2.90 at 53.36 MS **AXIS 1**

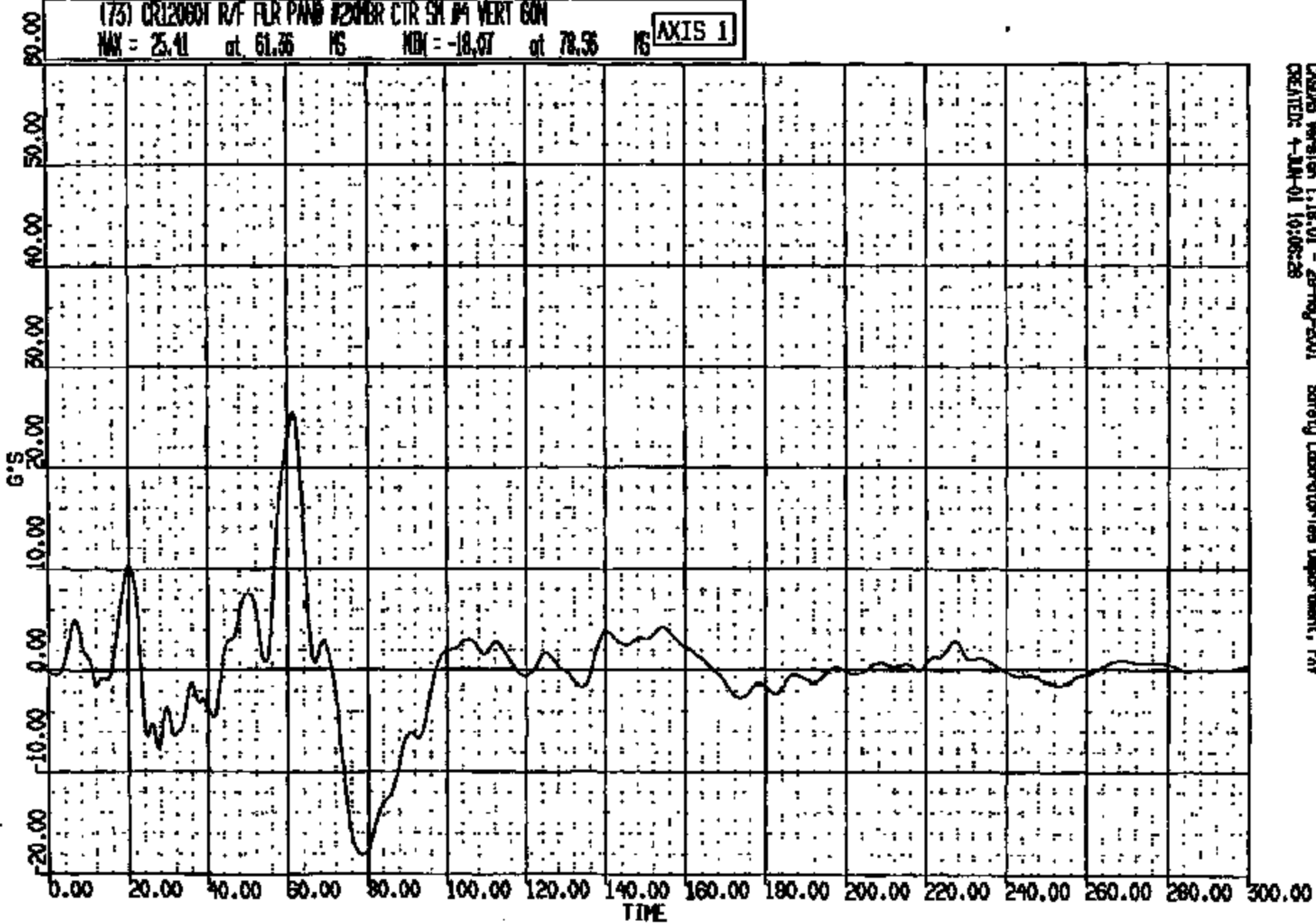


CRS09 Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAN  
CREATED: 4-JUN-01 10:07:28

CRIS 0012060

CR R: 12060 TO: TC1850 DATE: 001108 16:31:14  
2000 D188

(73) CR120601 R/F FOR PAND #20MR CTR SN #4 VERT GON  
MAX = 25.41 at 61.36 MS MIN = -18.07 at 78.36 MS **AXIS 1**



CASYS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAN  
CREATED: 4-JUN-01 10:08:28

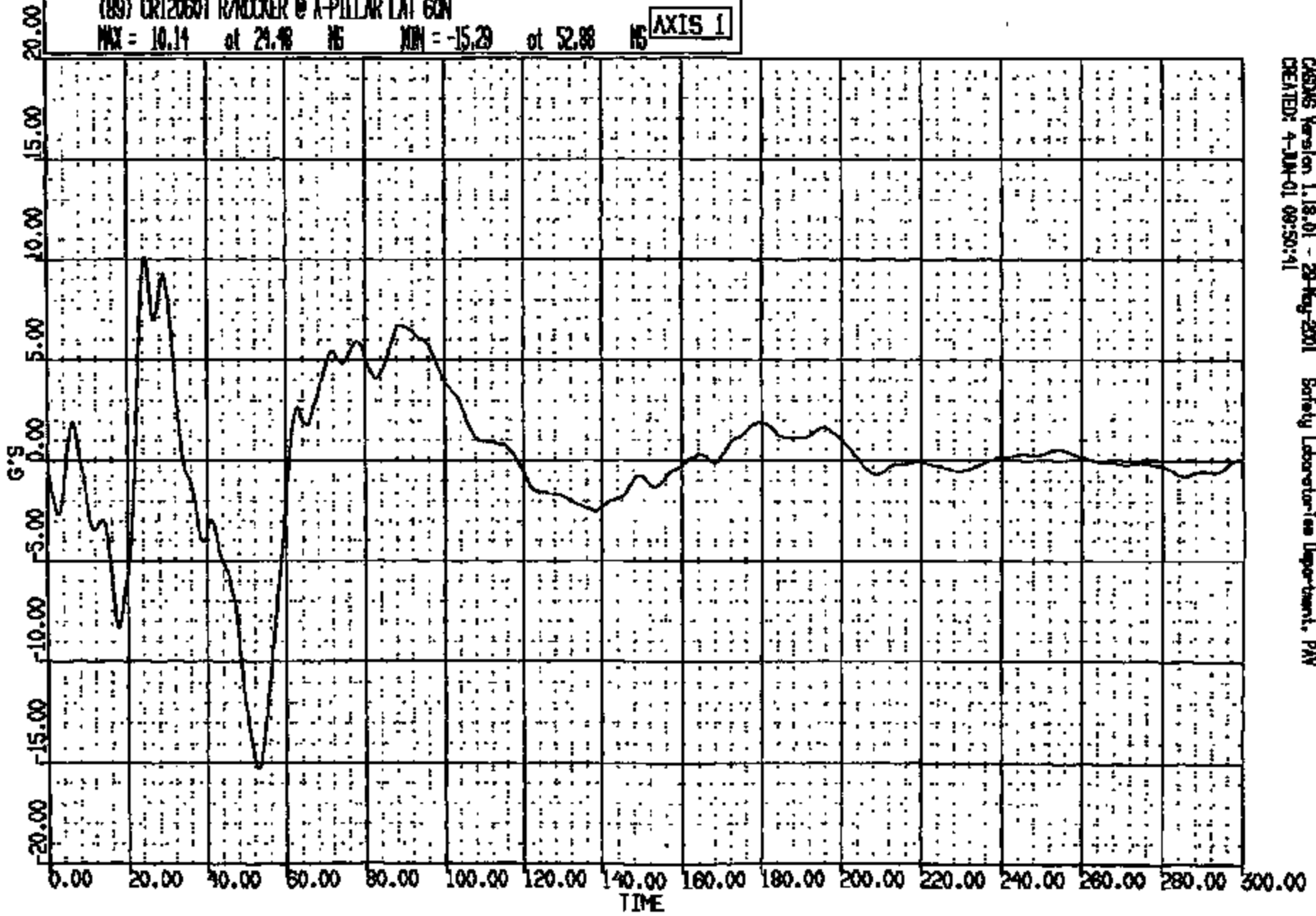
CRTS 0012060

CT R: 1200 TO: TC1830 DATE: 001106 19:31:14  
2000 D188

(89) CR120607 R/ROCKER @ A-PILLAR LAT 60N

MAX = 10.14 at 29.48 HS MIN = -15.29 at 52.88 HS

AXIS 1

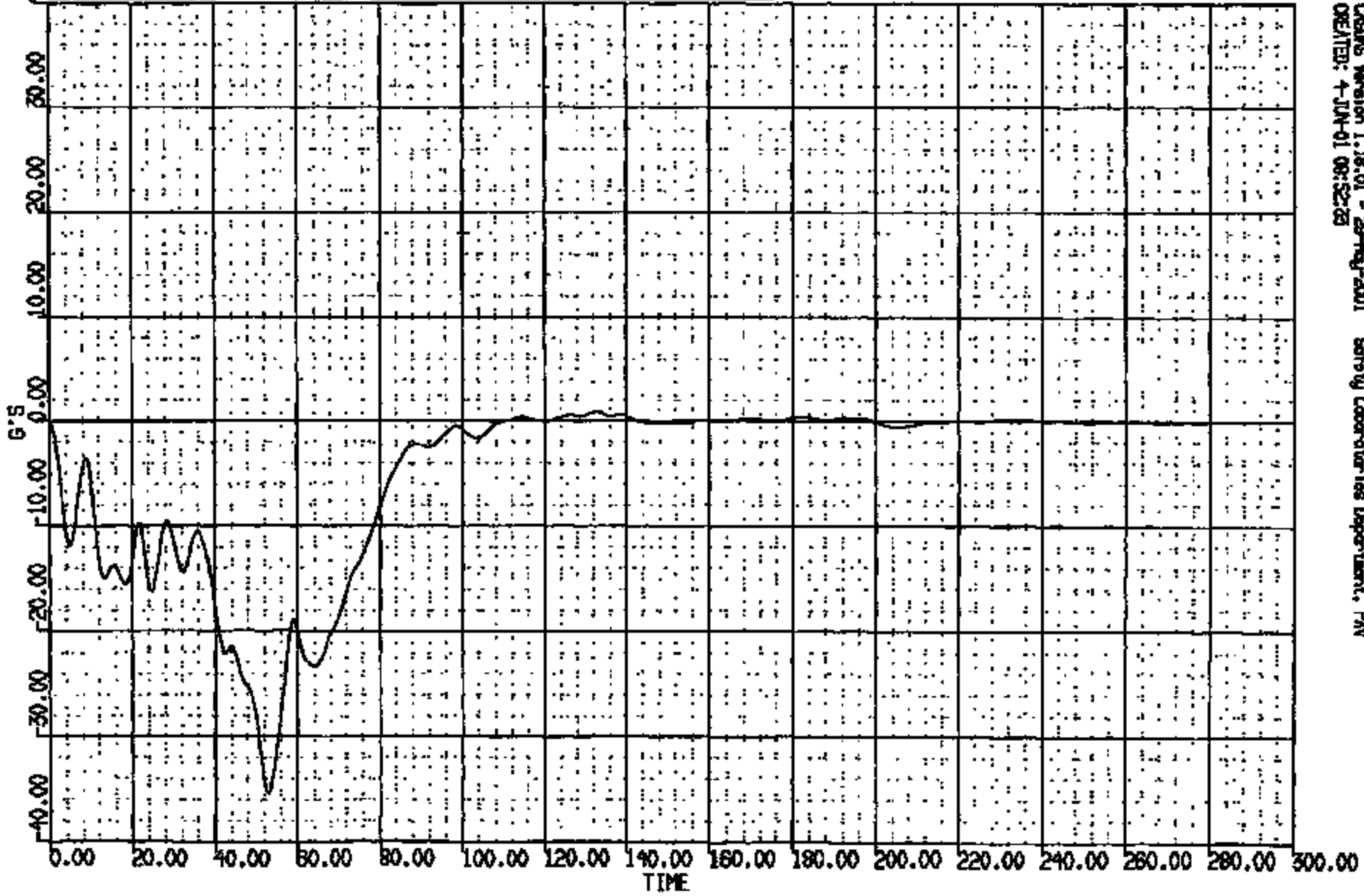


CASMS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PAN  
CREATED: 4-JUN-01 09:50:41

CRTS 0012060

Q. R: 12060 TO: TC1830 DATE: 001104 18:31:14  
2000 0188

(87) CR12060T R/ROCKER @ A-PILLAR LONG 60N  
MAX = 0.8760 at 135.0 MS MIN = -35.35 at 52.96 MS **AXIS 1**

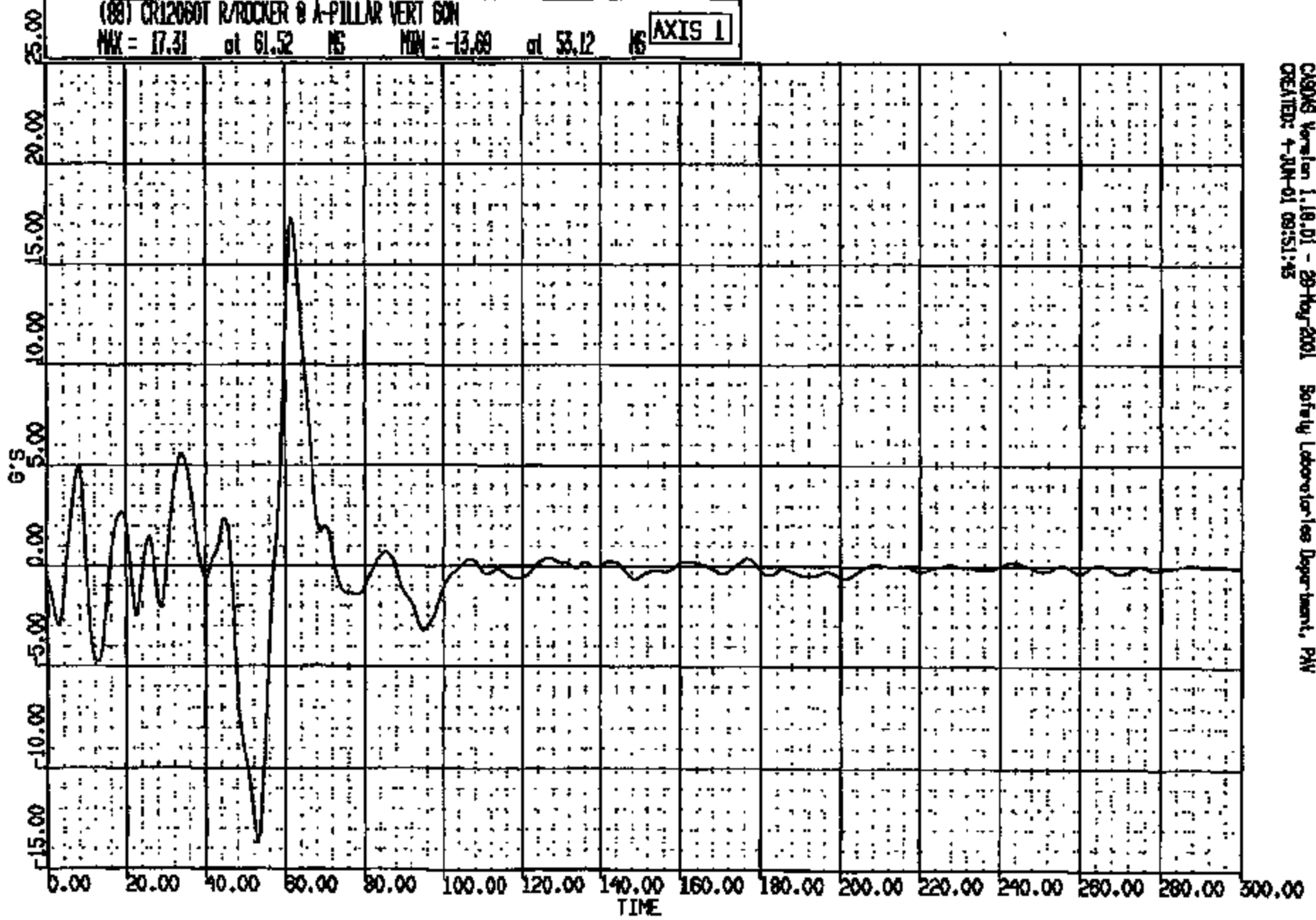


CRSWS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAN  
CREATED: 4 JUN 01 08:52:28

CRIS 0012060

CR: 12060 TO: TC1650 DATE: 001106 16:51:14  
2000 DISB

(88) CR12060T R/ROCKER @ A-PILLAR VERT GON  
MAX = 17.31 at 61.52 MS MIN = -13.69 at 53.12 MS **AXIS 1**



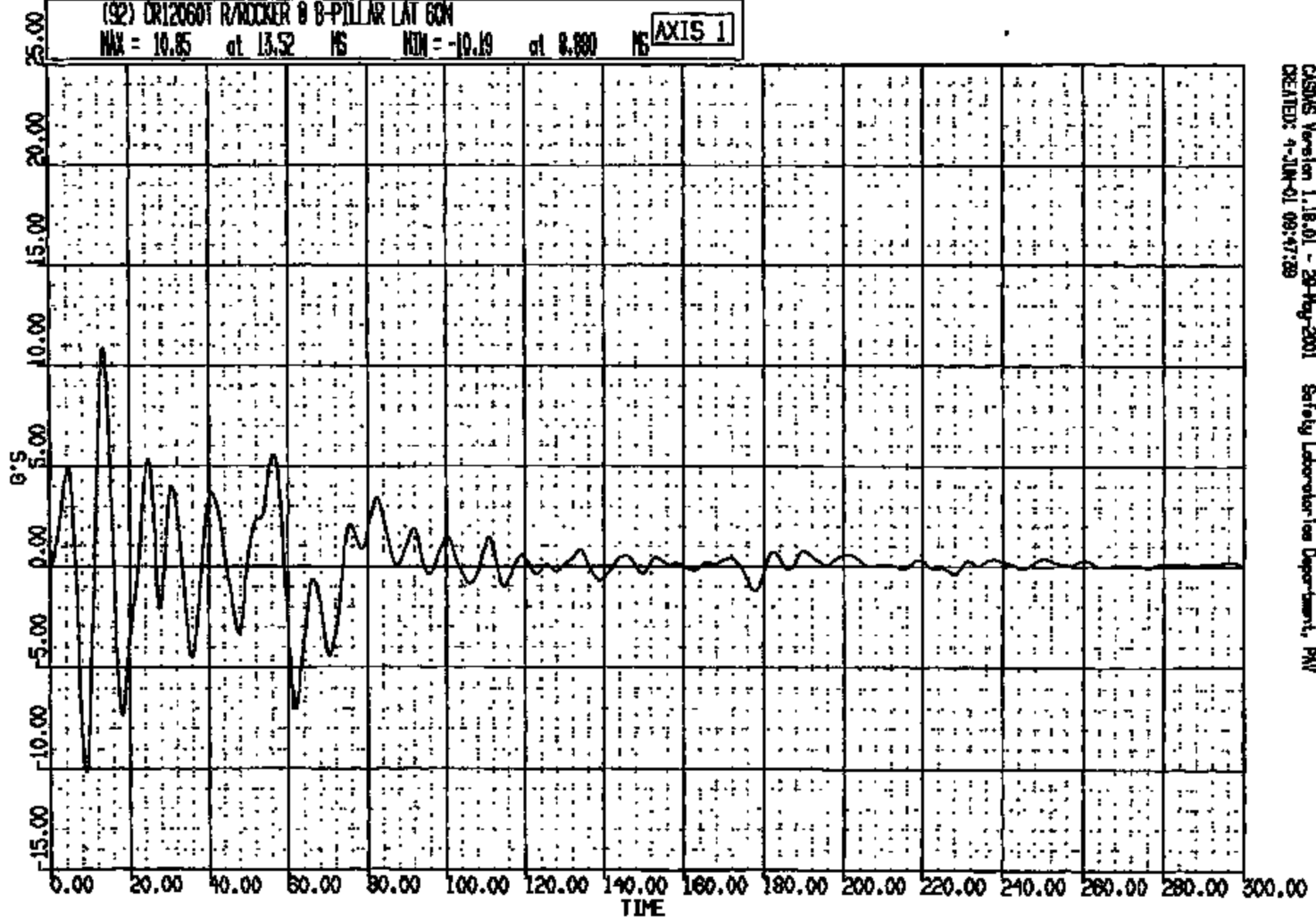
CRS06S Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:51:45

CRIS 0012060



CR R: 12080 TO: TC1850 DATE: 001106 18:51:14  
2000 D188

(92) CR12060T R/ROCKER 8 B-PILLAR LAT 60N  
MAX = 10.85 at 13.52 MS MIN = -10.19 at 8.880 MS **AXIS 1**



CASMS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PNI  
CREATED: 4-JUN-01 09:47:28

CRTS 0012060

CP. R: 12060 TO: TC1830 DATE: 001106 16:51:14  
2000 Digs

(90) CR12060T R/ROCKER @ B-PILLAR LONG 60N  
MAX = 5.314 at 52.88 NS MIN = -5.495 at 9.40 NS **AXIS 1**

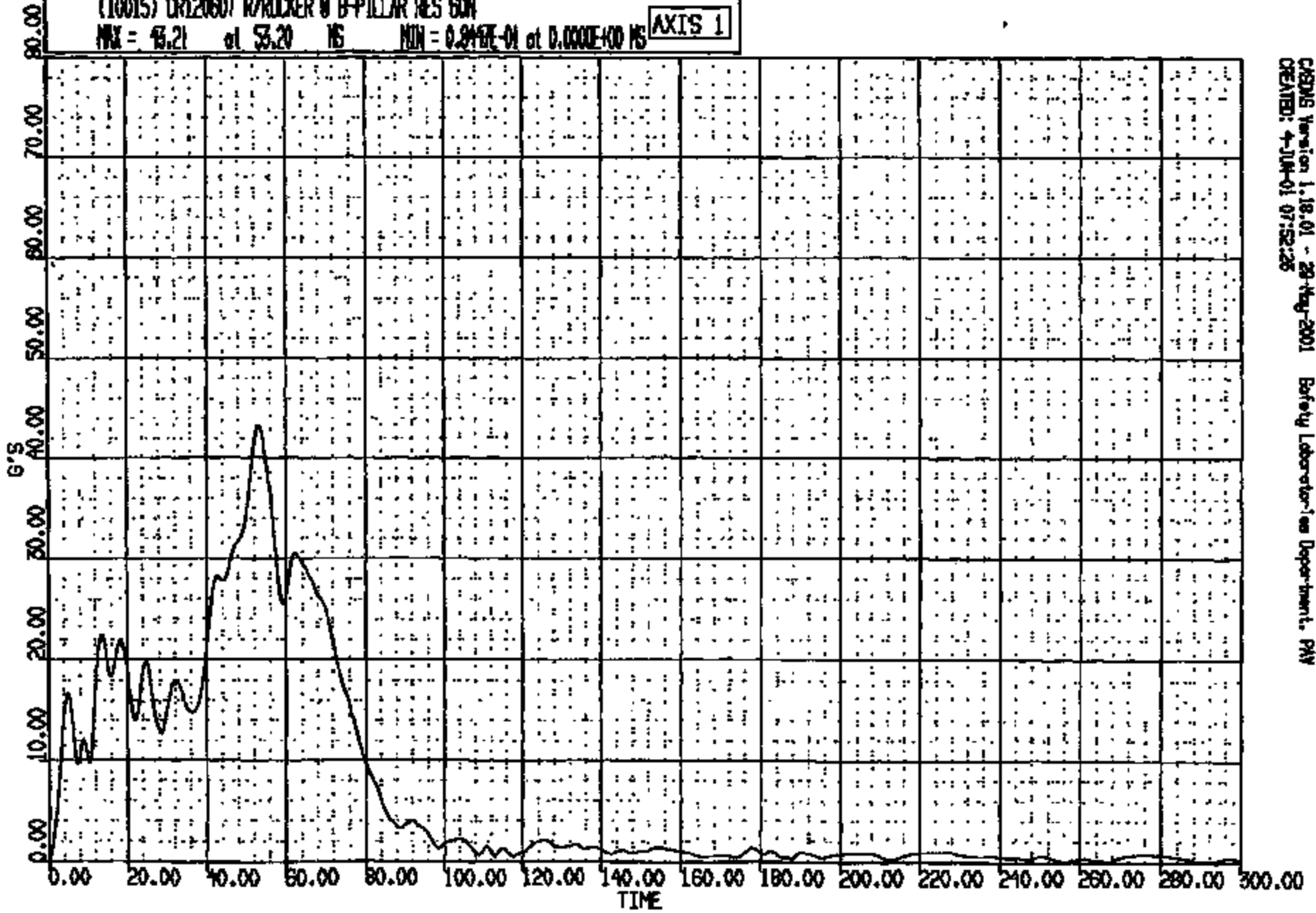


CASUS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 09:49:28

CRIS 0012060

CR R: 12080 TC: TC1850 DATE: 001106 16:51:17  
2000 D188

(10015) CR120607 R/ROCKER @ B-PILLAR RES 60N  
MAX = 45.21 at 53.20 MS MIN = 0.044E-01 at 0.000E+00 MS **AXIS 1**

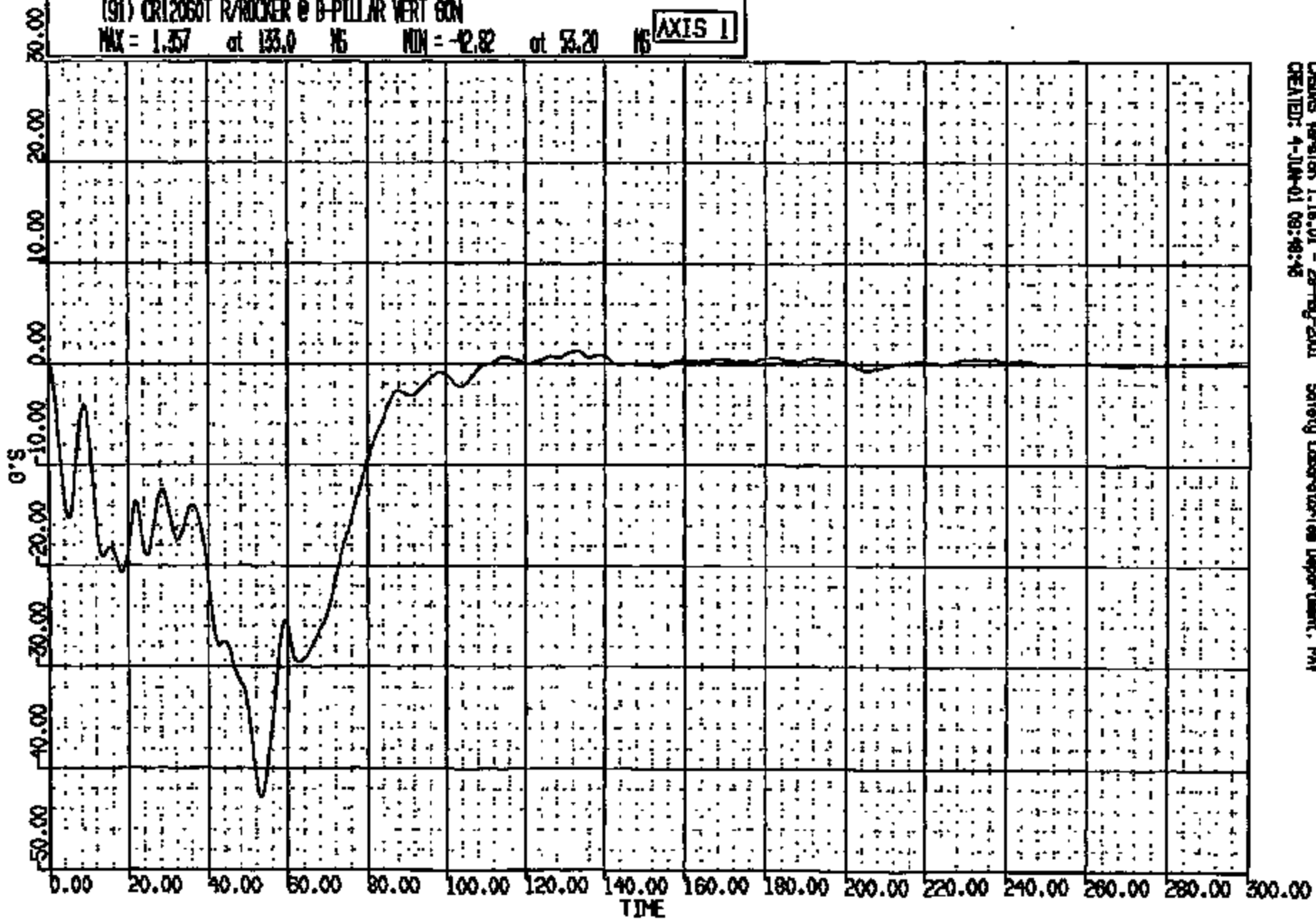


CRS015 Version 1.18.01 - 28 Aug 2001 Safety Laboratory Department, PAW  
CREATED: 4-JUN-01 07:52:25

CRIS 0012060

CR R: 12000 TC: TC1830 DATE: 001106 18:31:14  
2000 D188

(91) CRT2060T R/ROCKER @ B-PILLAR VERT 60N  
MAX = 1.37 at 133.0 MS MIN = -12.82 at 53.20 MS **AXIS 1**



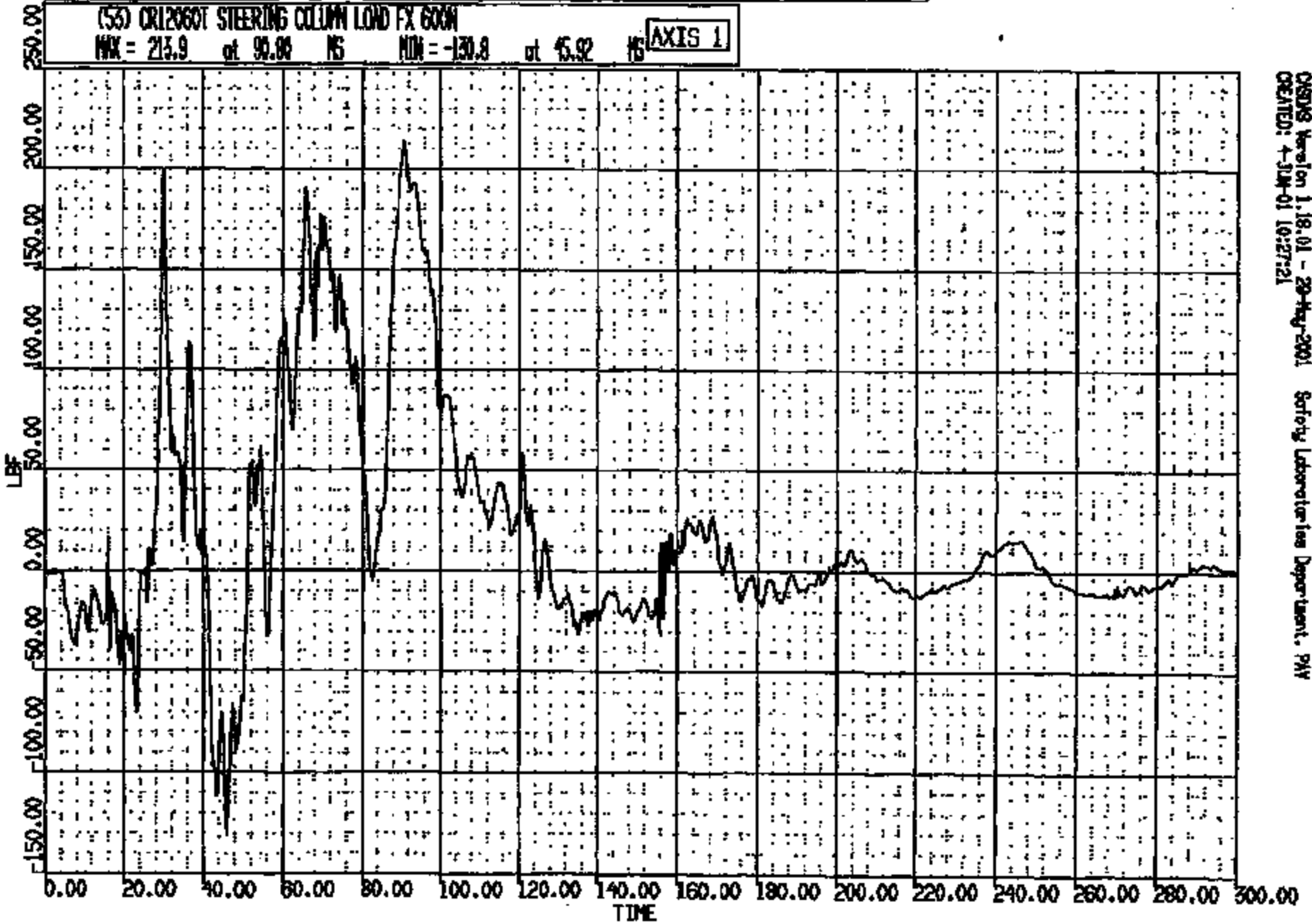
CHSWS Version 1.18-01 - 28-May-2001 Safety Laboratories Department, PMV  
CREATED: 4-JUN-01 09:48:45

CRTS 0012060

CR: R: 12060 TO: TC1830 DATE: 001104 16:51:14  
2000 D188

(55) CR12060T STEERING COLUMN LOAD FX 600N

MAX = 215.9 at 95.05 NS MIN = -130.8 at 45.92 NS **AXIS 1**



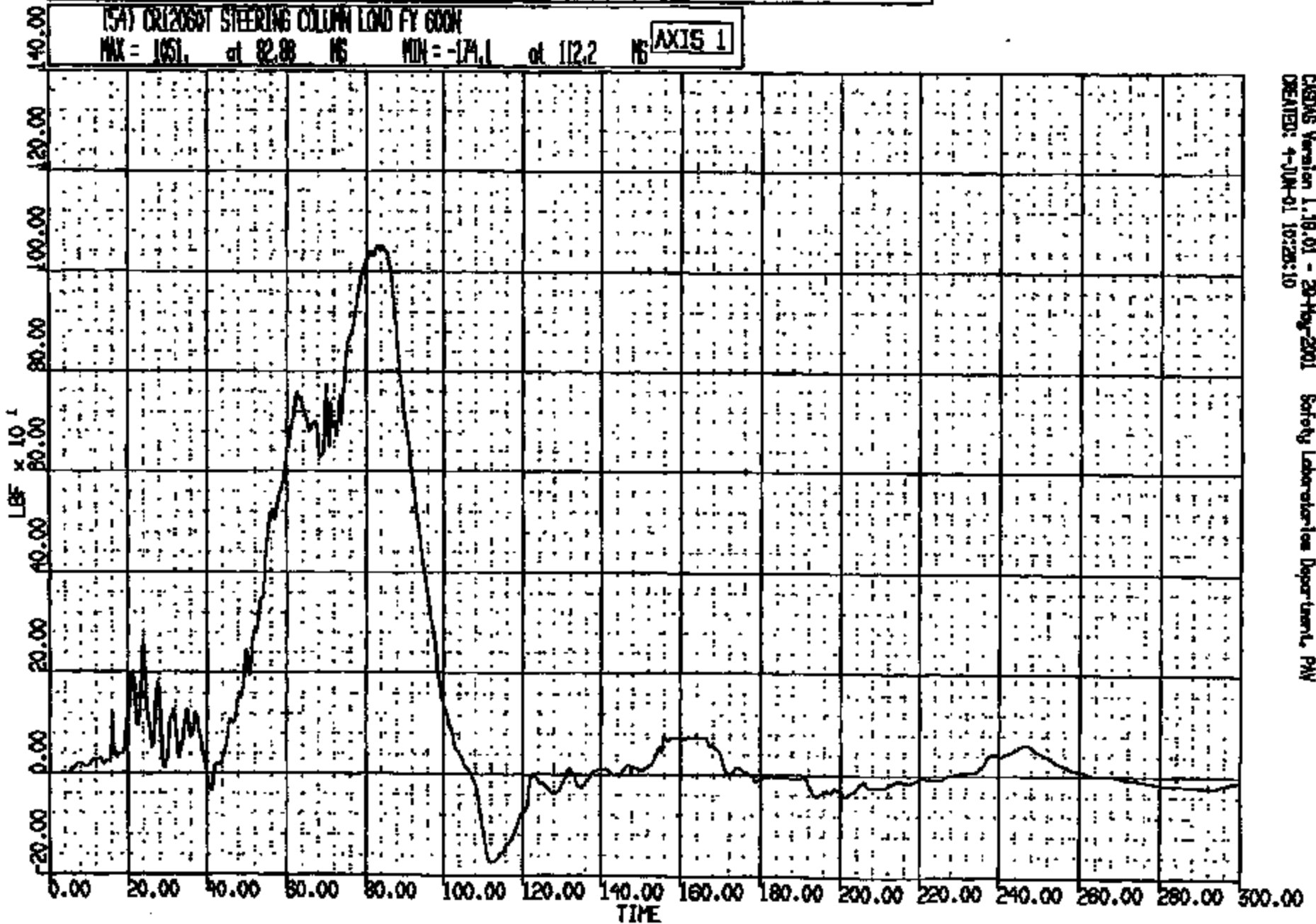
CRSNG Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 16:27:21

CRIS 0012060

CR R: 12060 TO: TC1850 DATE: 001108 16:51:14  
2000 D188

154) CR12060T STEERING COLUMN LOAD FY 600K

MAX = 105.1 at 82.88 MS MIN = -174.1 at 112.2 MS **AXIS 1**

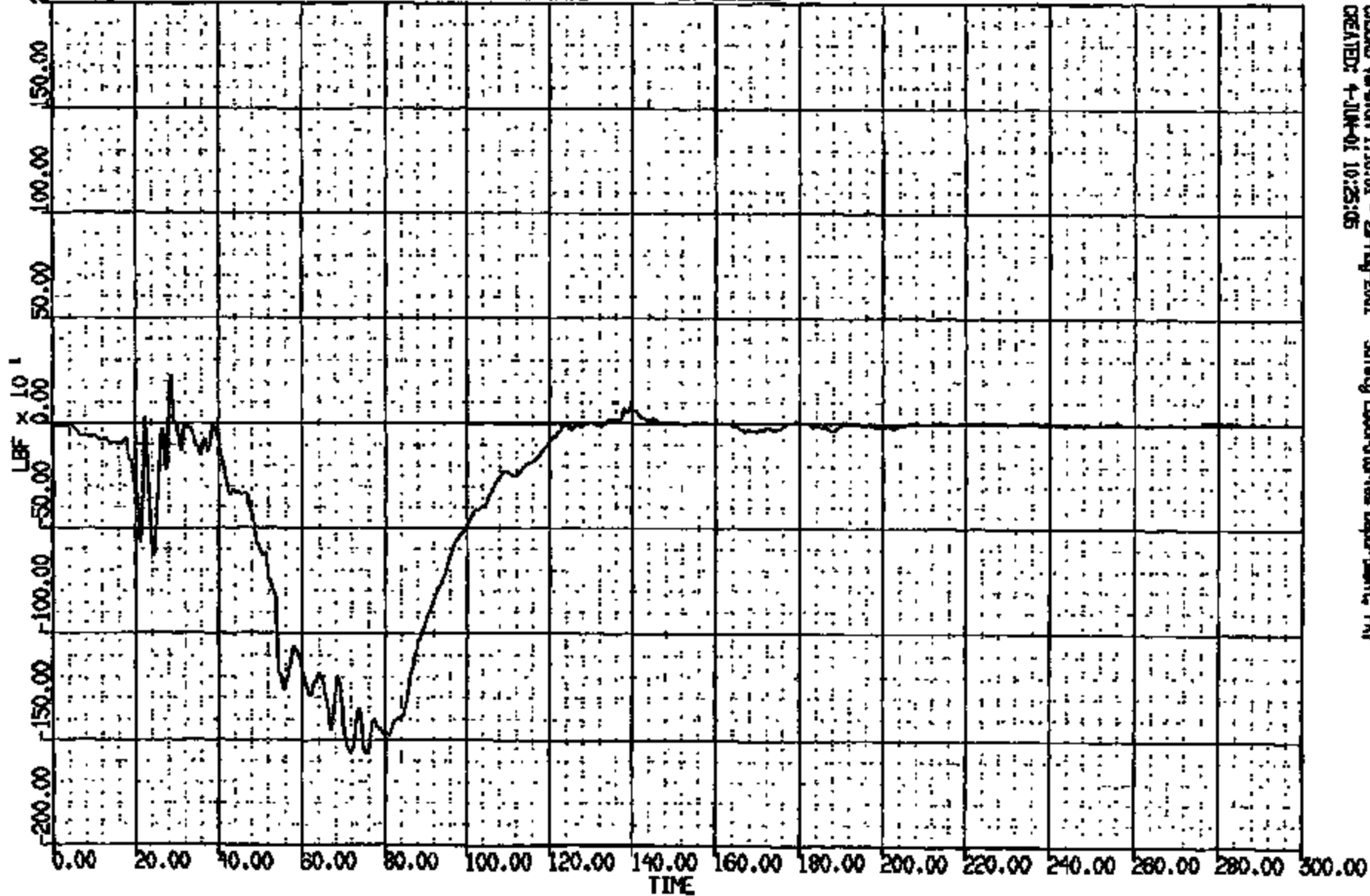


CASINS Version 1.18.01 - 20-Feb-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:28:10

CRTS 0012060

CR R: 12060 TO: TC1850 DATE: 001108 16:31:14  
2000 D186

(55) CR12060T STEERING COLUMN LOAD FZ 60XN  
MAX = 220.1 at 28.56 MS MIN = -156.5 at 75.80 MS **AXIS 1**

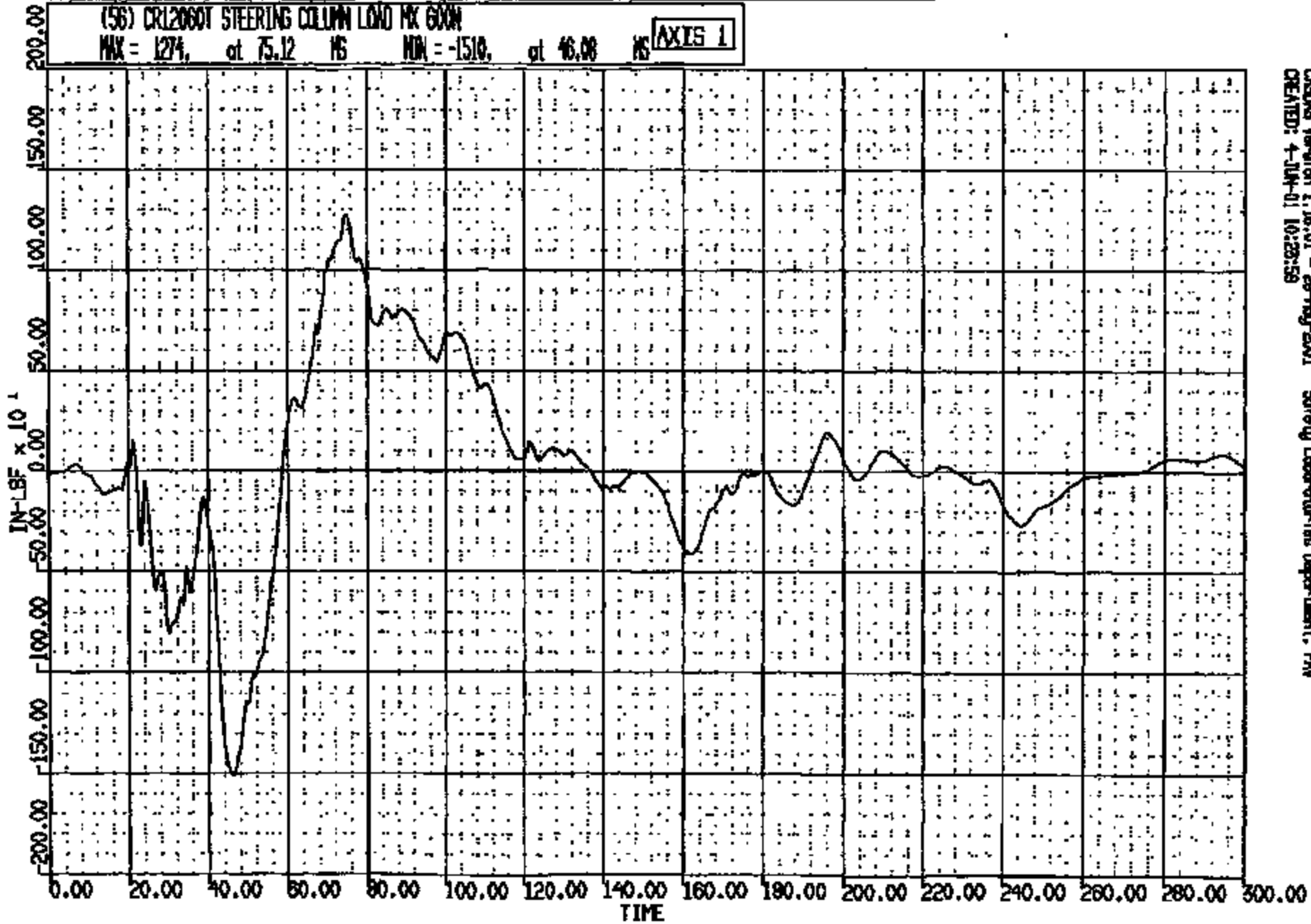


CASUS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:25:05

CRTS 0012060

NO: 12080 TO: TC1880 DATE: 00110L 18:51:14  
NO00 D188

(56) CRL2060T STEERING COLUMN LOAD PK GRW  
MAX = 1274, at 75.12 MS MIN = -1510, at 46.08 MS **AXIS 1**



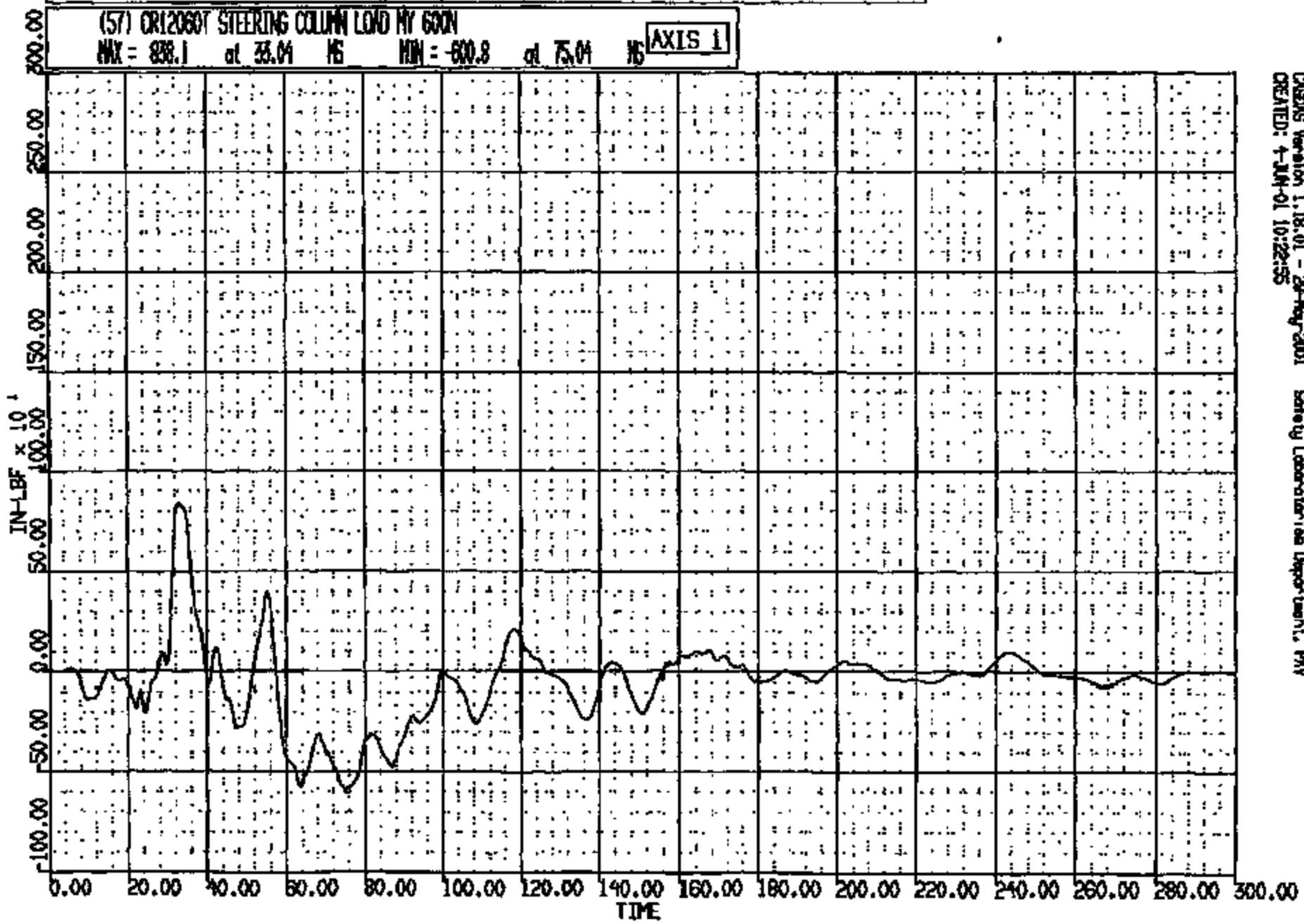
CASDAQ Version 1.18.01 - 28-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:23:58

CRTS 0012060



CR R: 12060 TO: TC1630 DATE: 001106 16:21:14  
2000 0188

(57) CR12060T STEERING COLUMN LOAD MY 600N  
MAX = 888.1 at 33.04 MS MIN = -600.8 at 75.04 MS **AXIS 1**

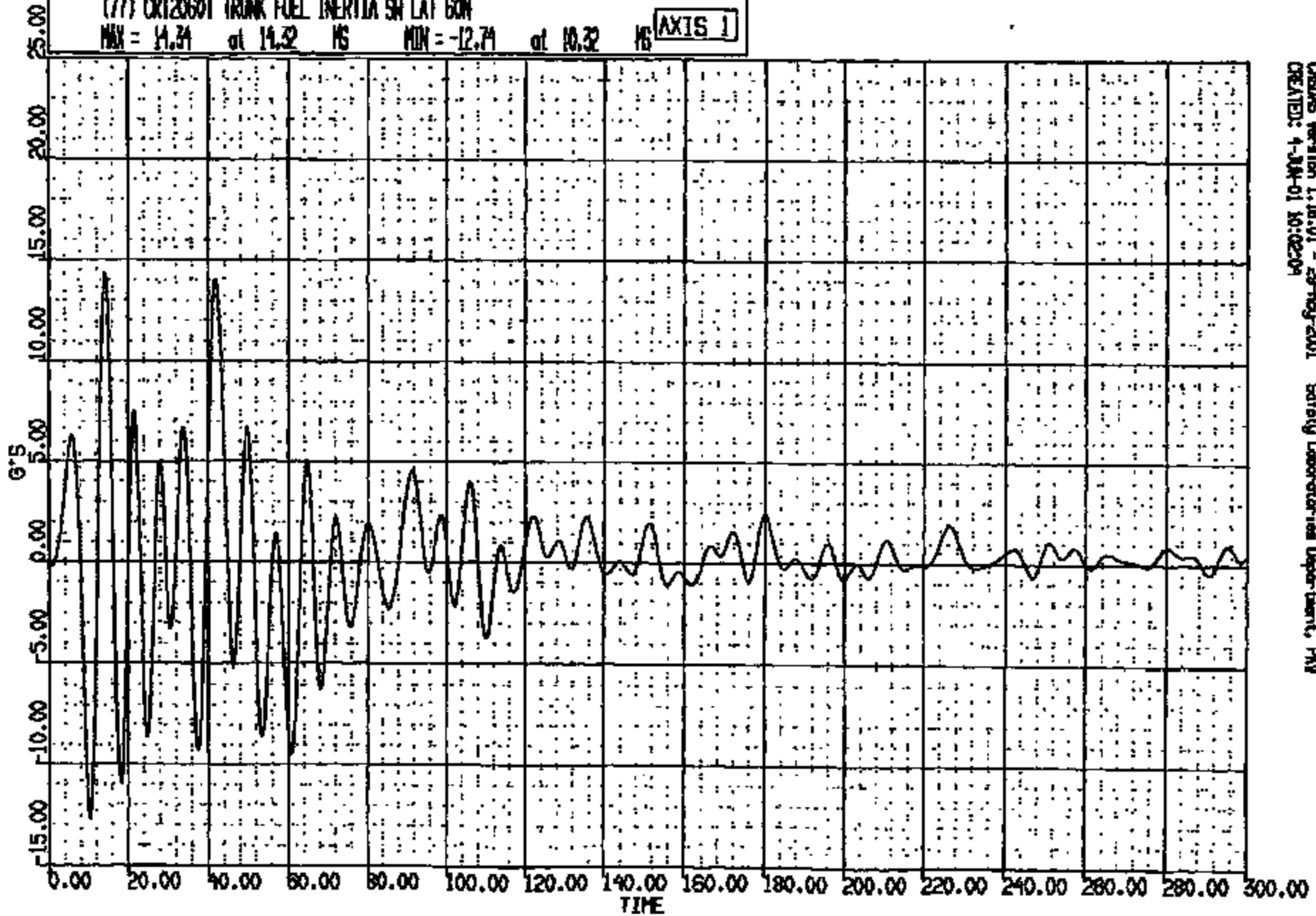


CRSAS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAV  
CREATED: 4-JUN-01 10:22:55

CRTS 0012060

CA R: 12080 TO: TC1830 DATE: 001106 18:31:14  
2000 DISB

(77) CR12060T TRANK FUEL INERTIA SH LAT 60H  
MAX = 14.34 at 14.32 MS MIN = -12.74 at 10.32 MS **AXIS 1**



CASDAS Version 1.18.01 - 29 May 2001 Safety Laboratories Department, PNV  
CREATED: 4-MAY-01 10:02:09

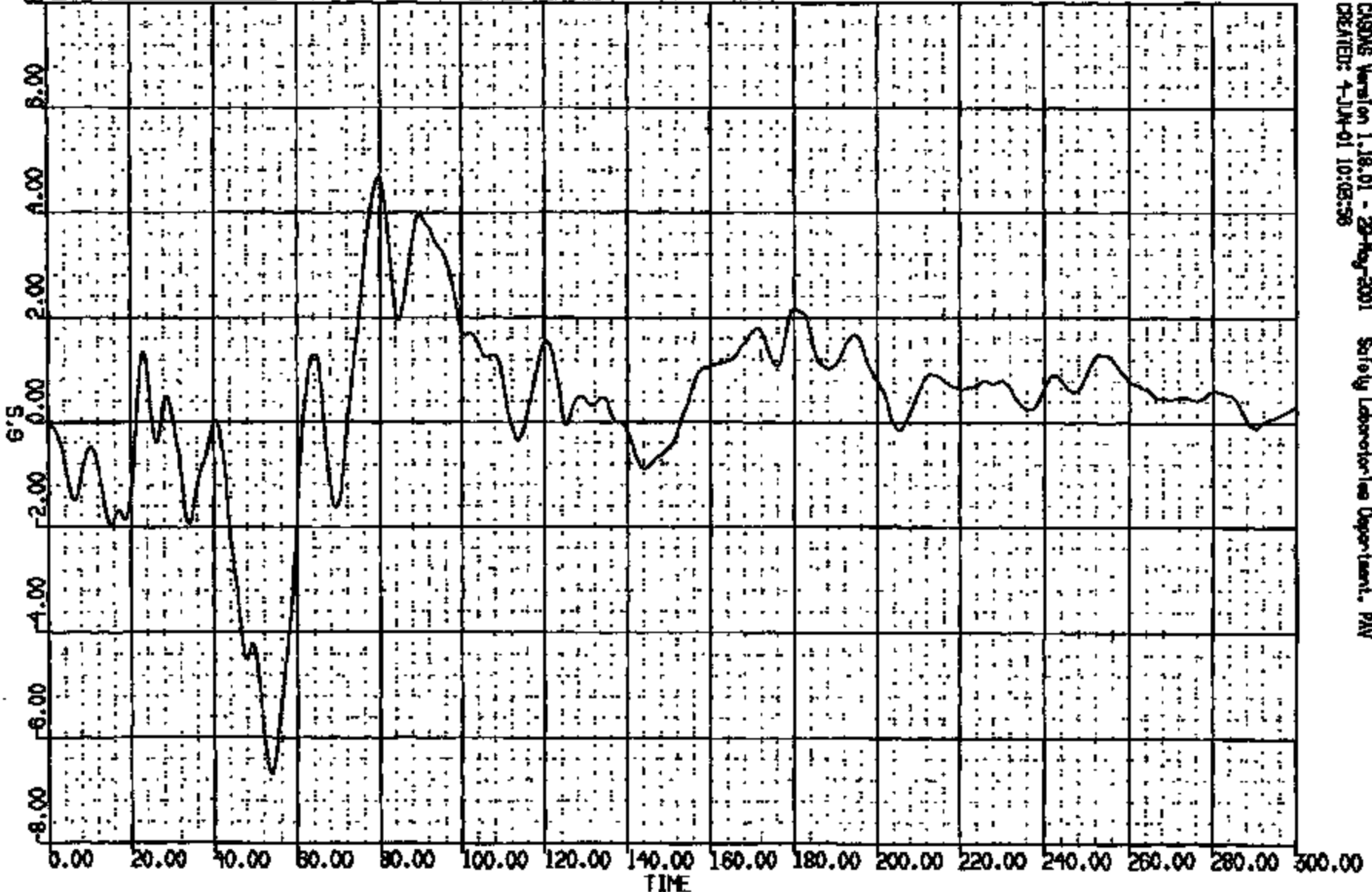
CRTS 0012060

CR R: 12060 TO: TC1830 DATE: 001102 18:31:14  
2000 D186

(75) CR120601 TRUNK FUEL INERTIA SH LONG 60N

MAX = 4.688 at 73.00 NS MIN = -6.695 at 53.76 NS

AXIS 1

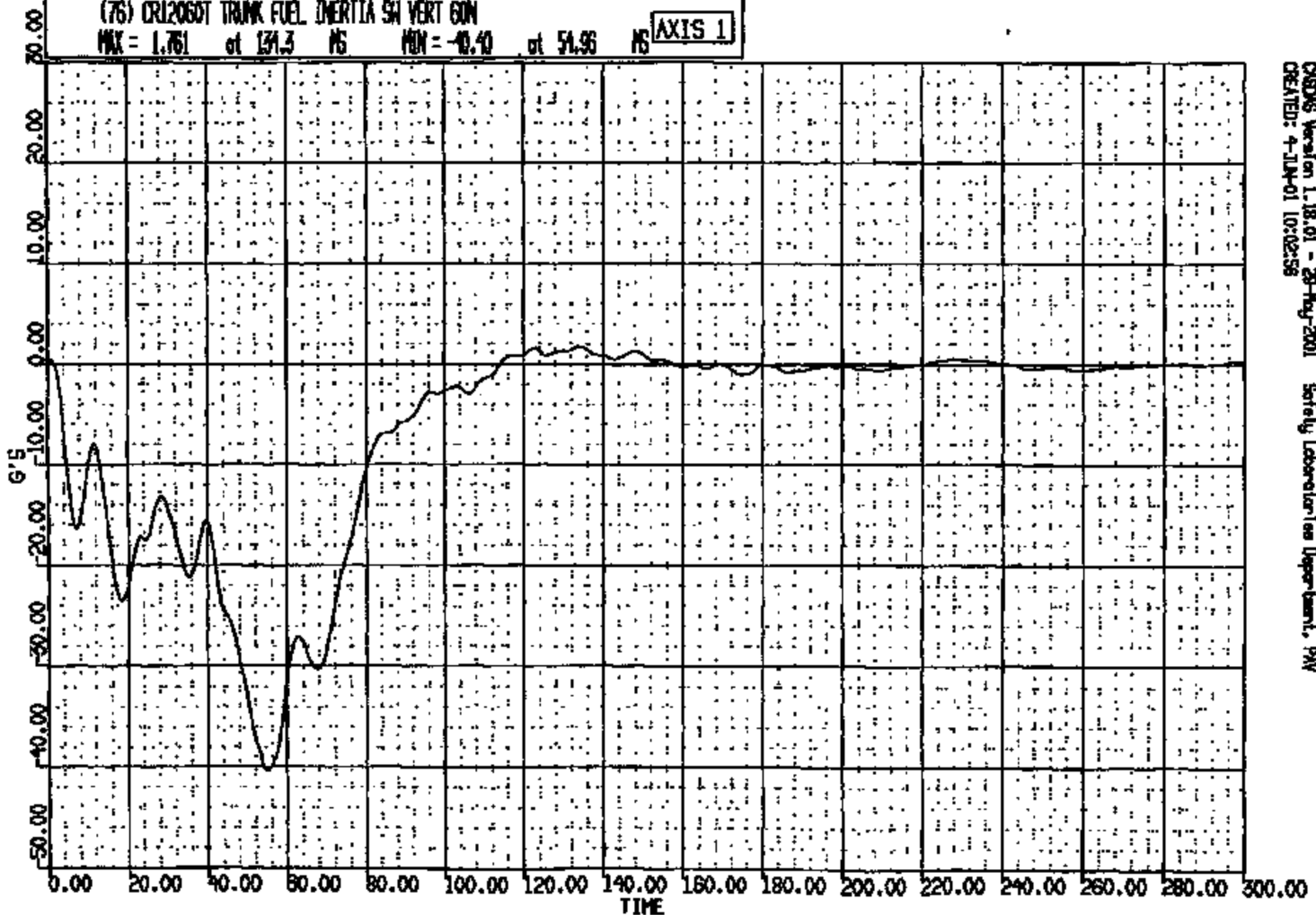


CASINS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAN  
CREATED: 4-JUN-01 10:03:38

CRTS 0012060

CR #: 12060 TO: TC1850 DATE: 001106 16:31:14  
2000 D188

(76) CR12060T TRUNK FUEL INERTIA SH VERT GON  
MAX = 1.761 at 131.3 MS MIN = -10.40 at 51.96 MS **AXIS 1**

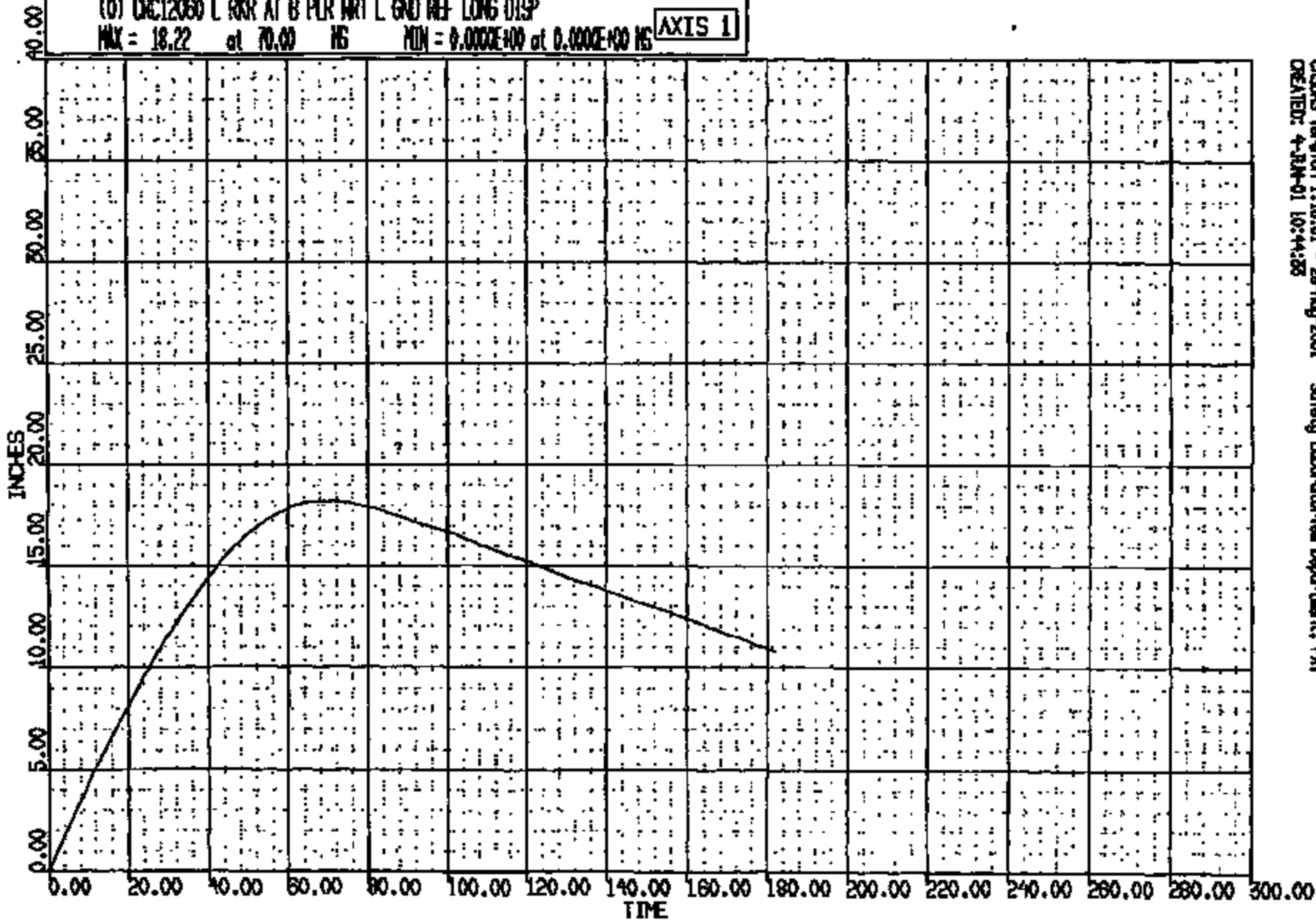


CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PAW  
CREATED: 4-JUN-01 10:02:58

CRIS 0012060

CR R: 12060 TO: TC1850 DATE: 001104 18:31:14  
2000 DISB

(0) CR12060 L RKR AT B PLR WRT L GND REF LONG DISP  
MAX = 18.22 at 70.00 HS MIN = 0.0000E+00 at 0.0000E+00 HS **AXIS 1**

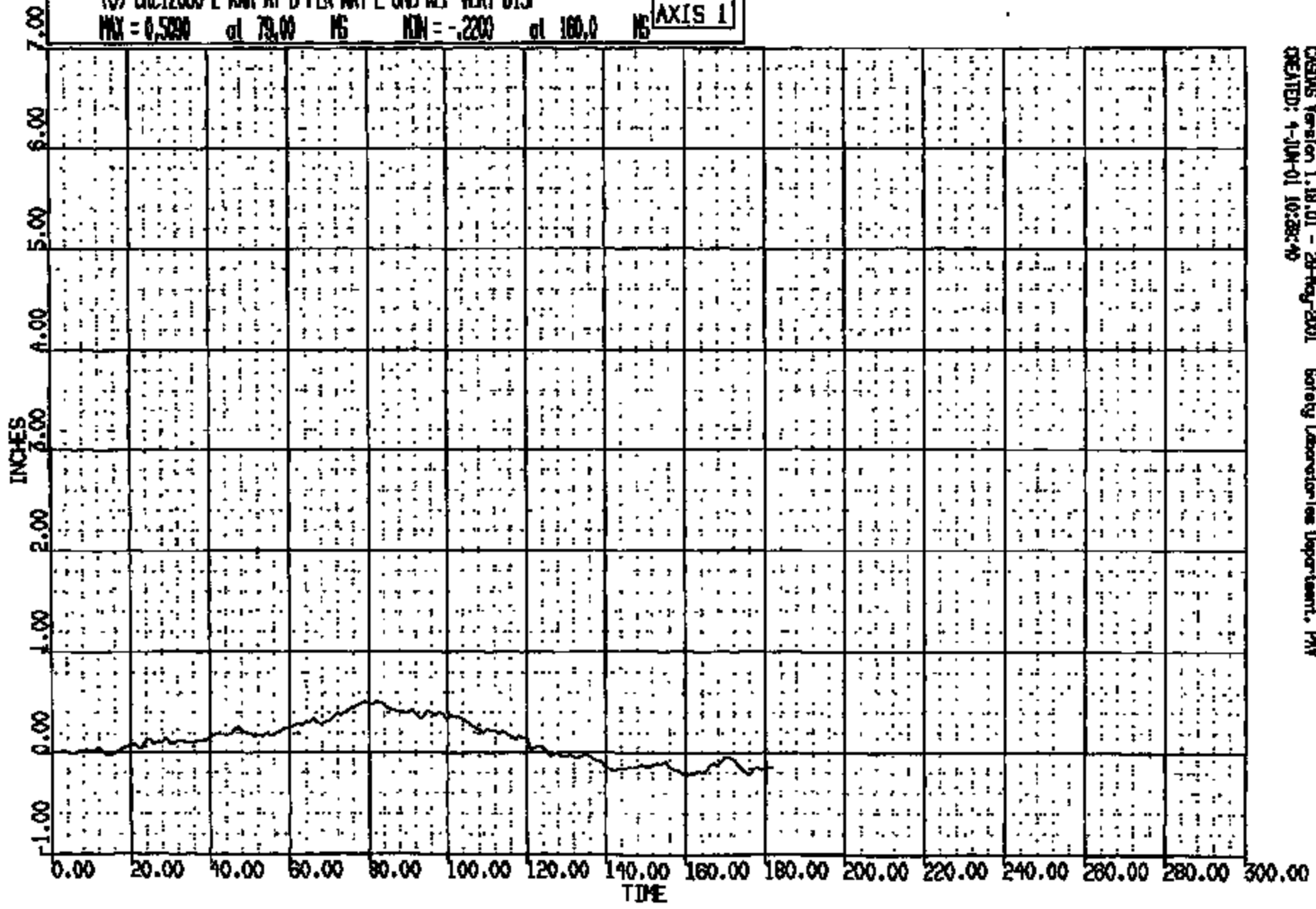


CADDS Version 1.18.01 - 29-Aug-2001 Safety Laboratory Department, PAW  
CREATED: 4-JUN-01 10:44:35

CRIS 0012060

CR #: 12060 TO: TC1830 DATE: 001106 15:51:14  
2000 D188

(0) CR12060 L RNR AT B PLR NRT L GND REF VERT DISP  
MAX = 0.5800 at 79.00 MS MIN = -.2200 at 160.0 MS **AXIS 1**

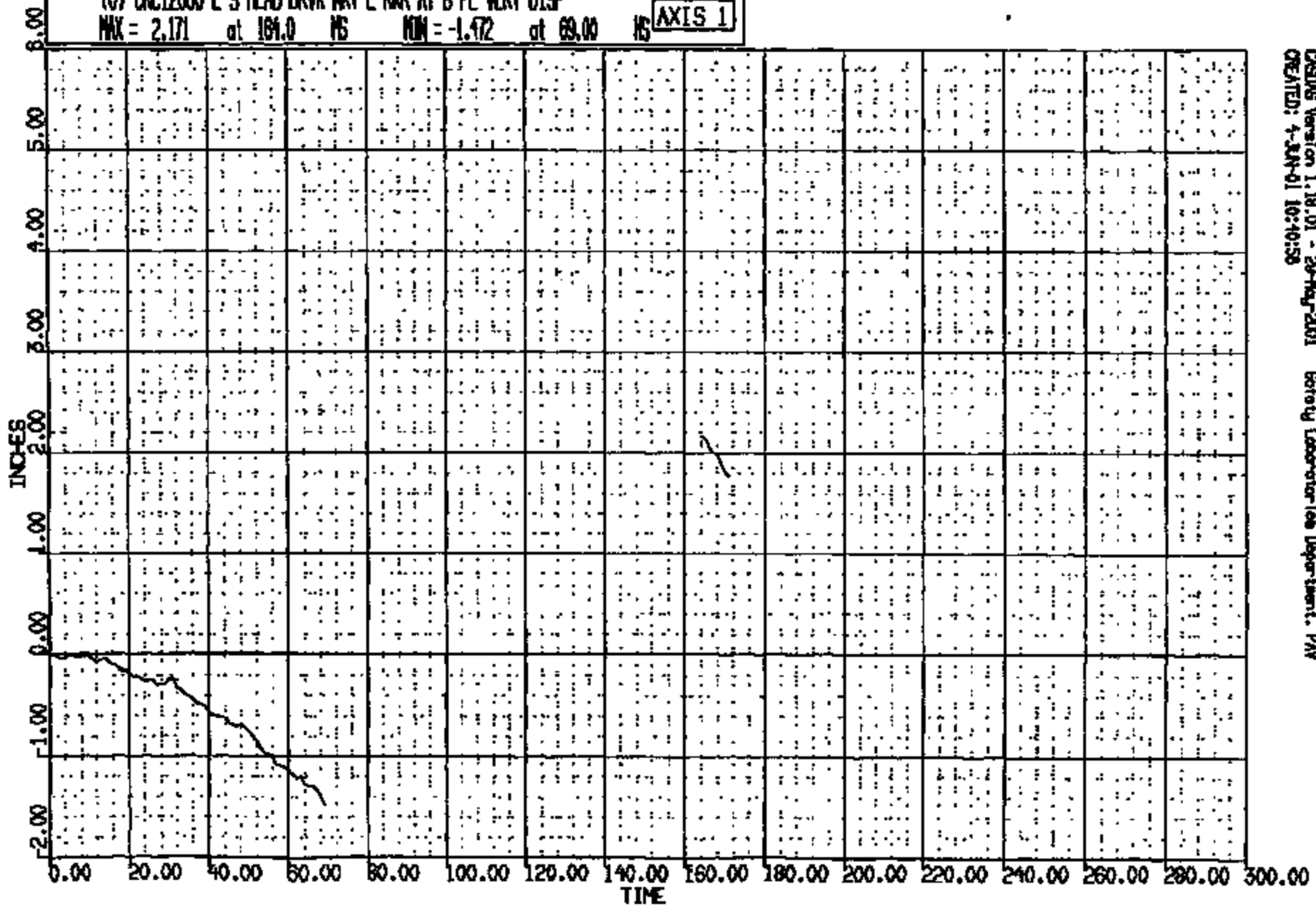


CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratories Department, PNW  
CREATED: 4-JUN-01 10:38:49

CRIS 0012060

NO: R: 12060 TO: TC1830 DATE: 001104 18:51:14  
2000 DISC

(0) CRC12060 L S HEAD DRVR WRT L RGR AT B PL VERT DISP  
MAX = 2.171 at 161.0 MS MIN = -1.472 at 69.00 MS **AXIS 1**

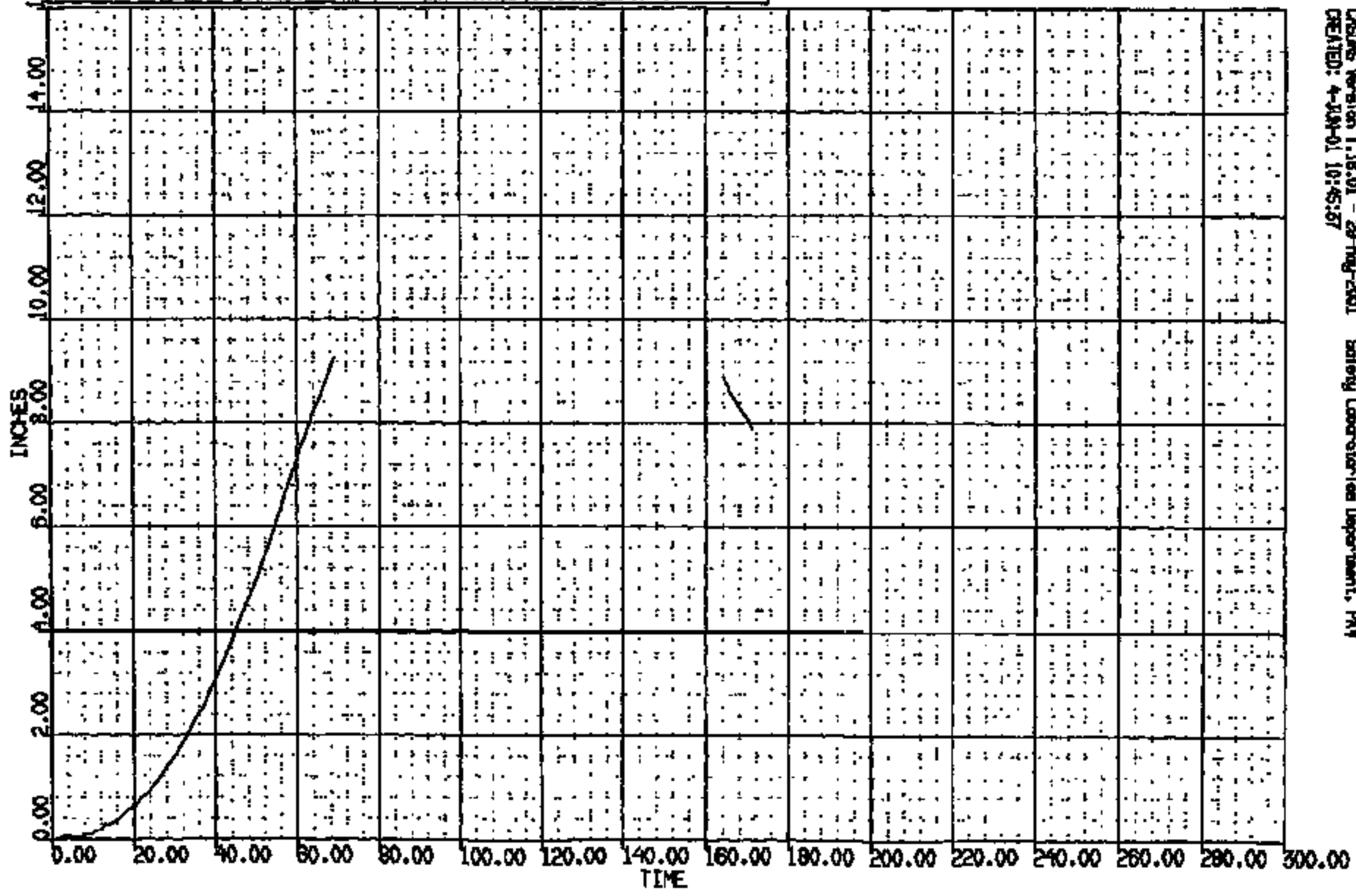


CRSIS Version 1.18.01 - 29-May-2001 Safety Laboratory Department, PAW  
CREATED: 4-JUN-01 10:10:58

CRTS 0012060

CR R: 12060 TO: TC1850 DATE: 001108 18:51:14  
2000 D188

(0) CR12060 L S HEAD DRVR WRT L RKR AT B PL LONG DISP  
MAX = 9.283 at 68.00 MS MIN = 0.000E+00 at 0.000E+00 MS **AXIS 1**



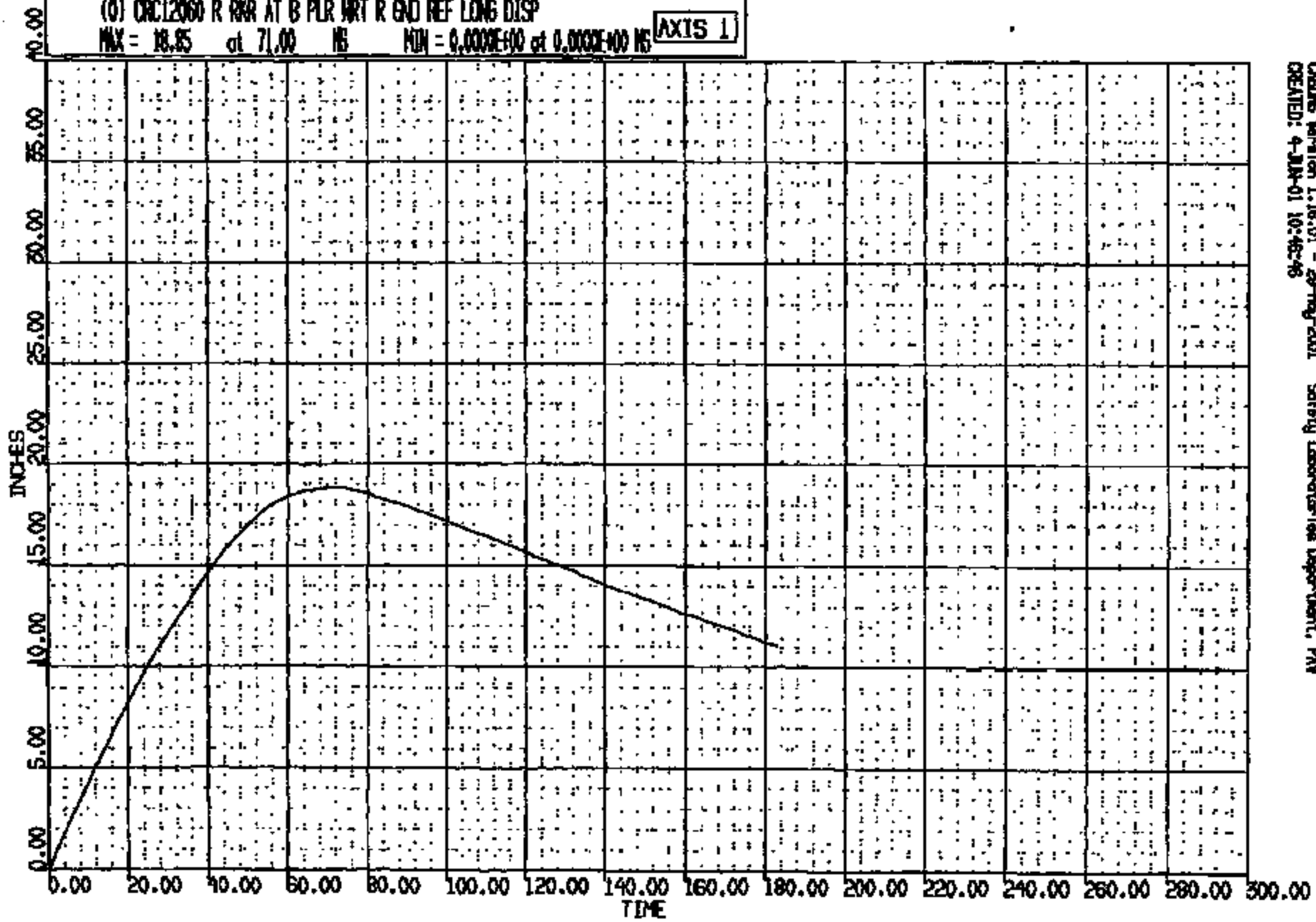
CASIMS Version 1.16.01 - 28 Aug-2001 Safety Laboratories Department, PMV  
CREATED: 4-JUN-01 10:45:57

CRIS 0012060



CR R: 12060 TO: TC1830 DATE: 001108 18:51:14  
2000 0188

(0) CRCL2060 R RRR AT B PLR WRT R END REF LONG DISP  
MAX = 18.85 at 71.00 HS MIN = 0.000E+00 at 0.000E+00 HS **AXIS 1**

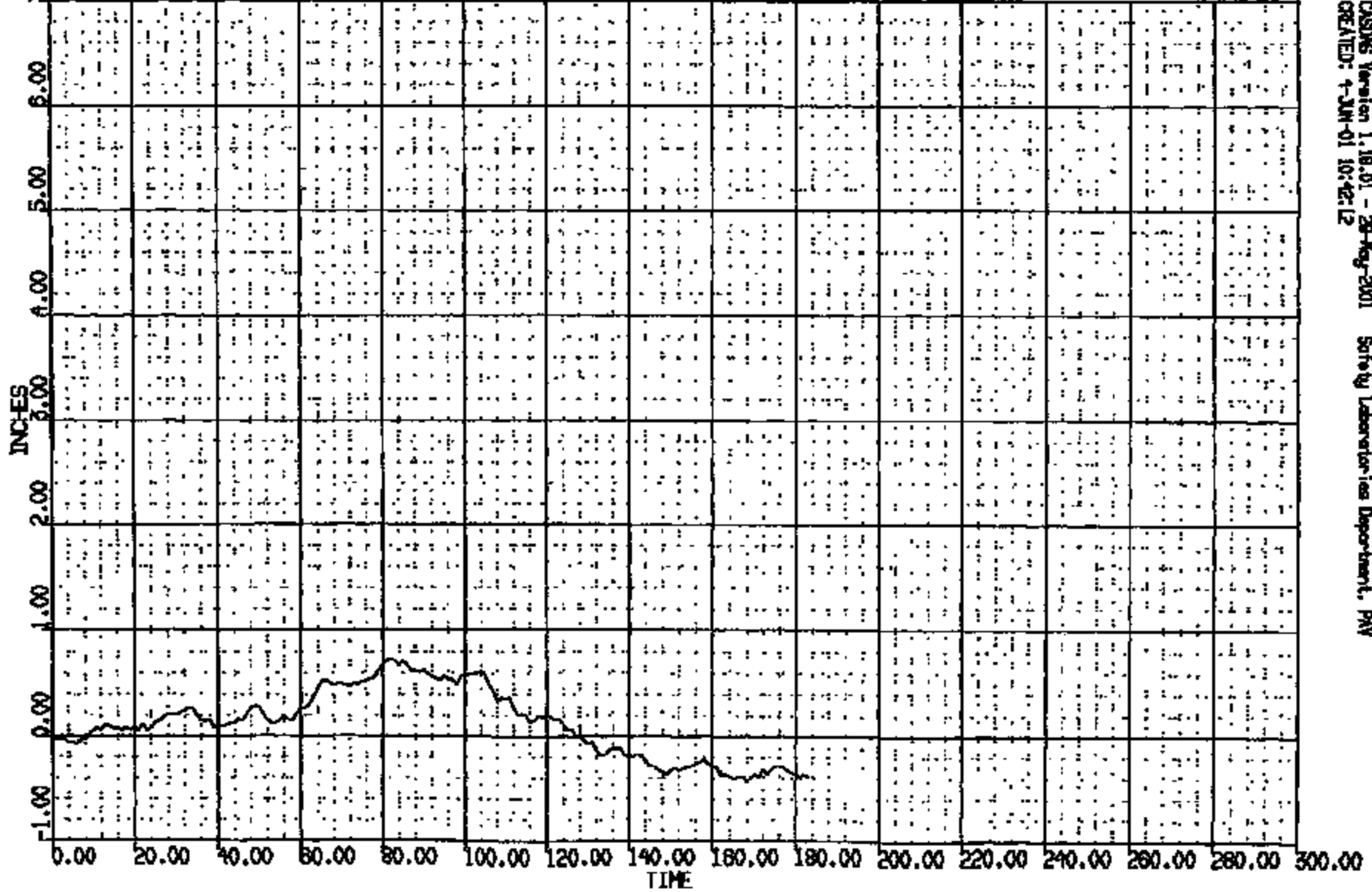


CRSNGS Version 1.16.01 - 29-Aug-2001 Safety Laboratories Department, PNV  
CREATED: 4-JUN-01 10:48:46

CRTS 0012060

CH R: 12060 TO: TC1850 DATE: 001102 16:51:14  
2000 D185

(0) CRC12060 R RWR AT B PLR WRT R GND REF VERT DISP  
MAX = 0.7340 at 82.00 MS MIN = -.4350 at 168.0 MS **AXIS 1**

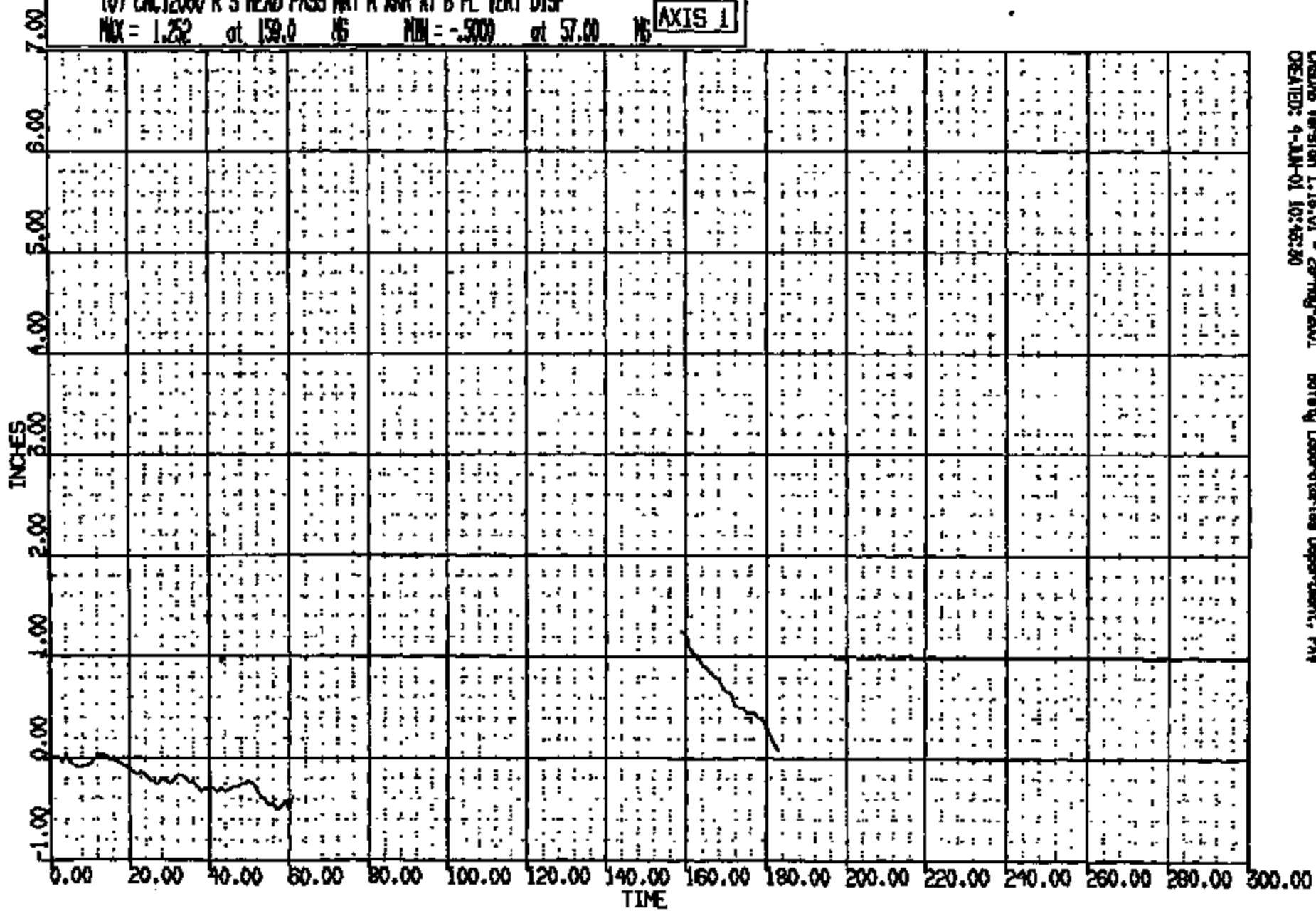


CASINS Version 1.18.01 - 29-Aug-2001 Safety Laboratories Department, PNW  
CREATED: 4-JUN-01 10:42:12

CRTS 0012060

CR #: 12060 TD: TC1850 DATE: 001106 16:51:14  
2000 D186

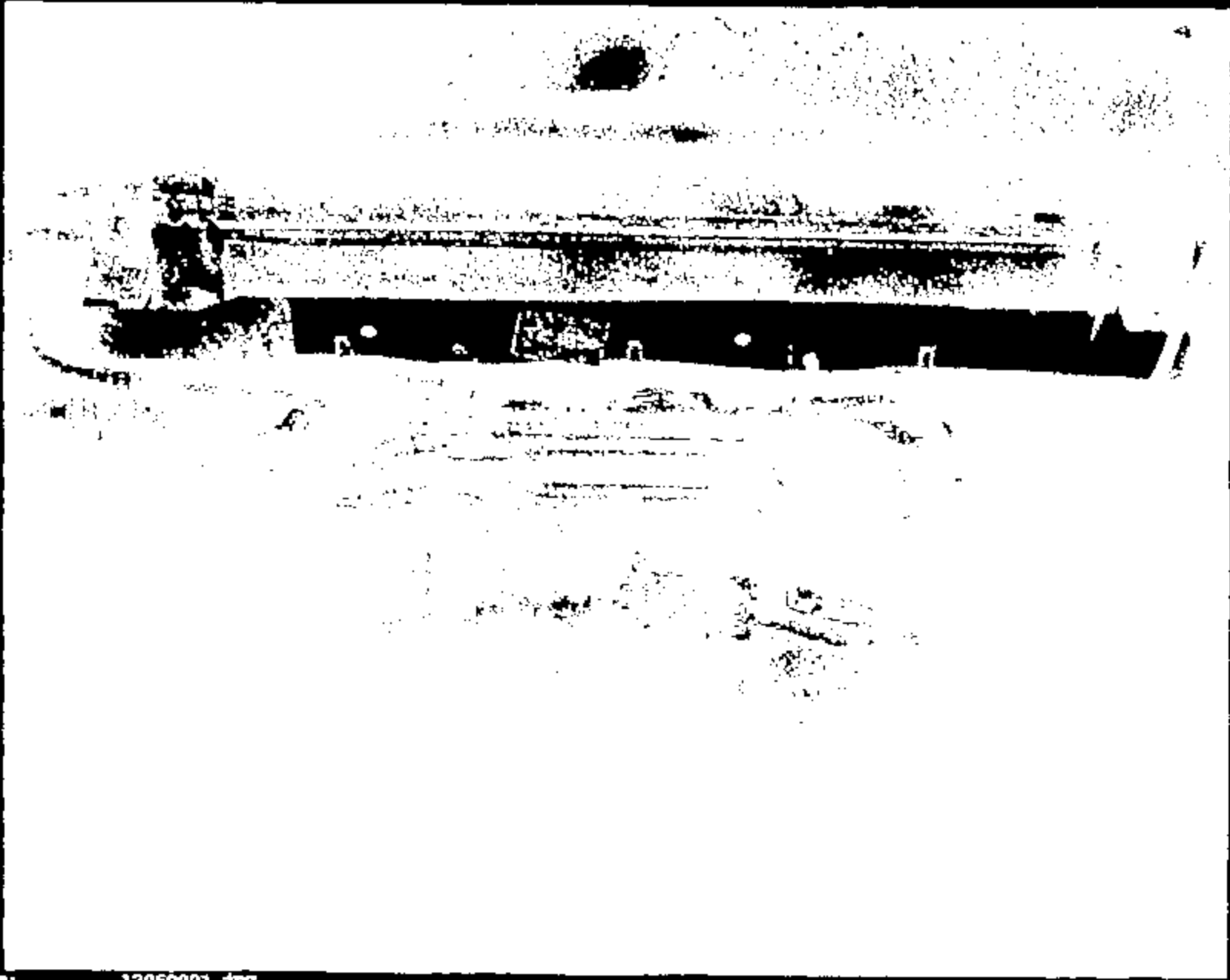
(0) CRC12060 R S HEAD PASS WRT R INR AT B PL VERT DISP  
MAX = 1.252 at 159.0 NS MIN = -.5000 at 57.00 NS **AXIS 1**



CASDIS Version 1.18-01 - 29-Aug-2001 Befaly Laboratories Department, PNY  
CREATED: 4-JUN-01 10:42:20

CRTS 0012060





Name: 12060001.jpg

CRTS 0012060



CRTS 0012060

Frame 1

12060002.399



Name:

12060003.jpg

CRTS 0012060



Name:

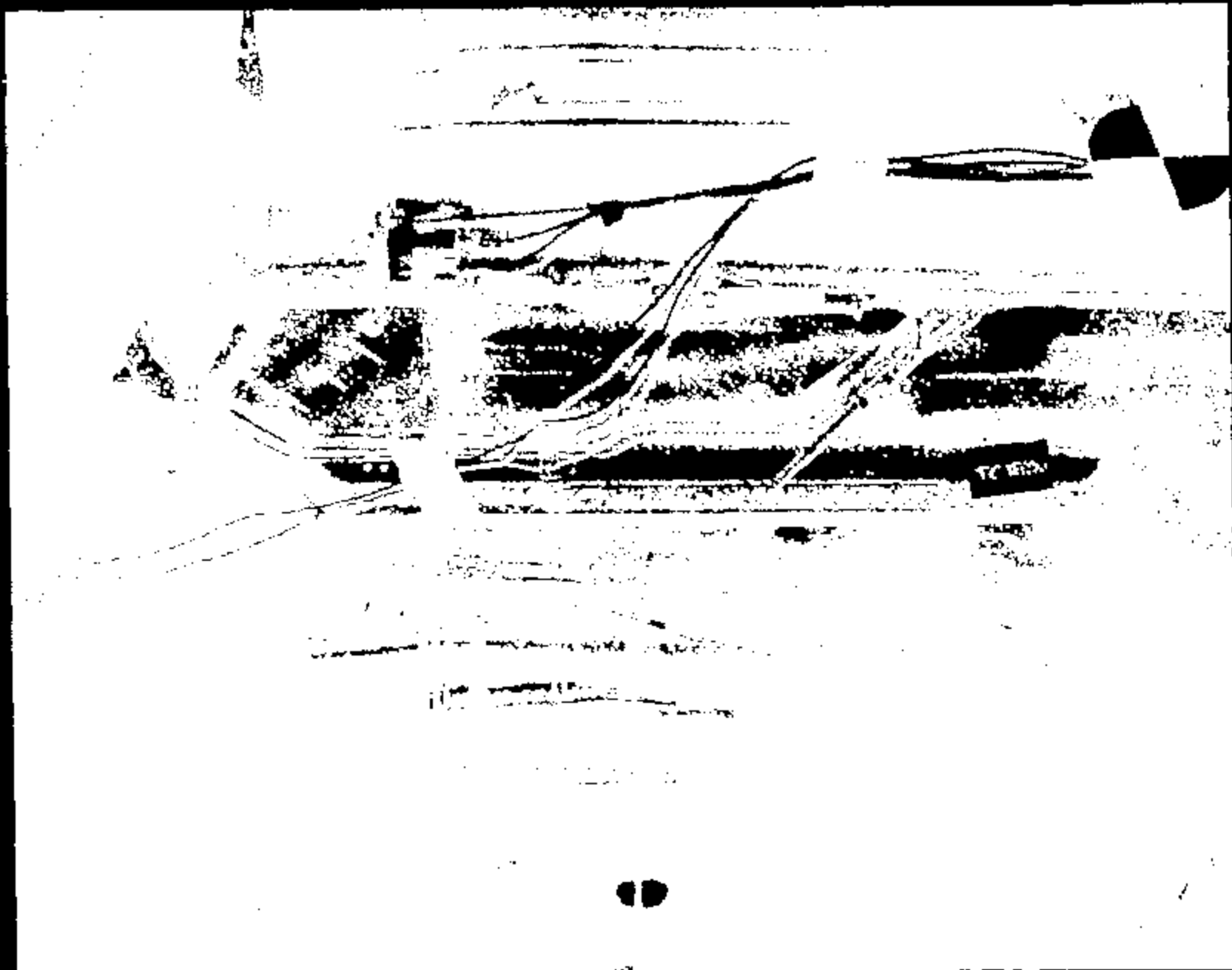
Edf.400099CT 12060004.jpg





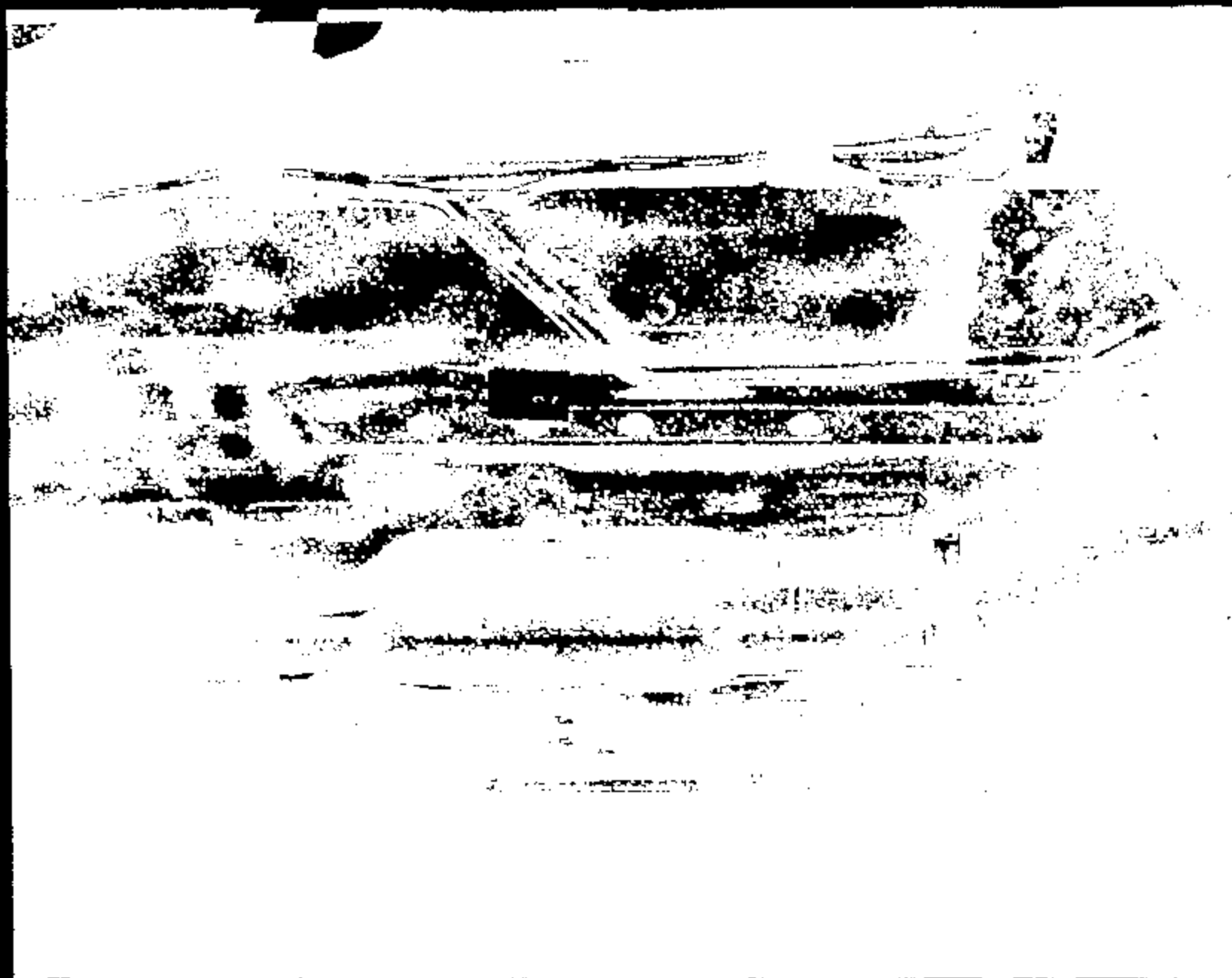
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12088005.jpg



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CRTS 0012060



Page: 12050007.jpg



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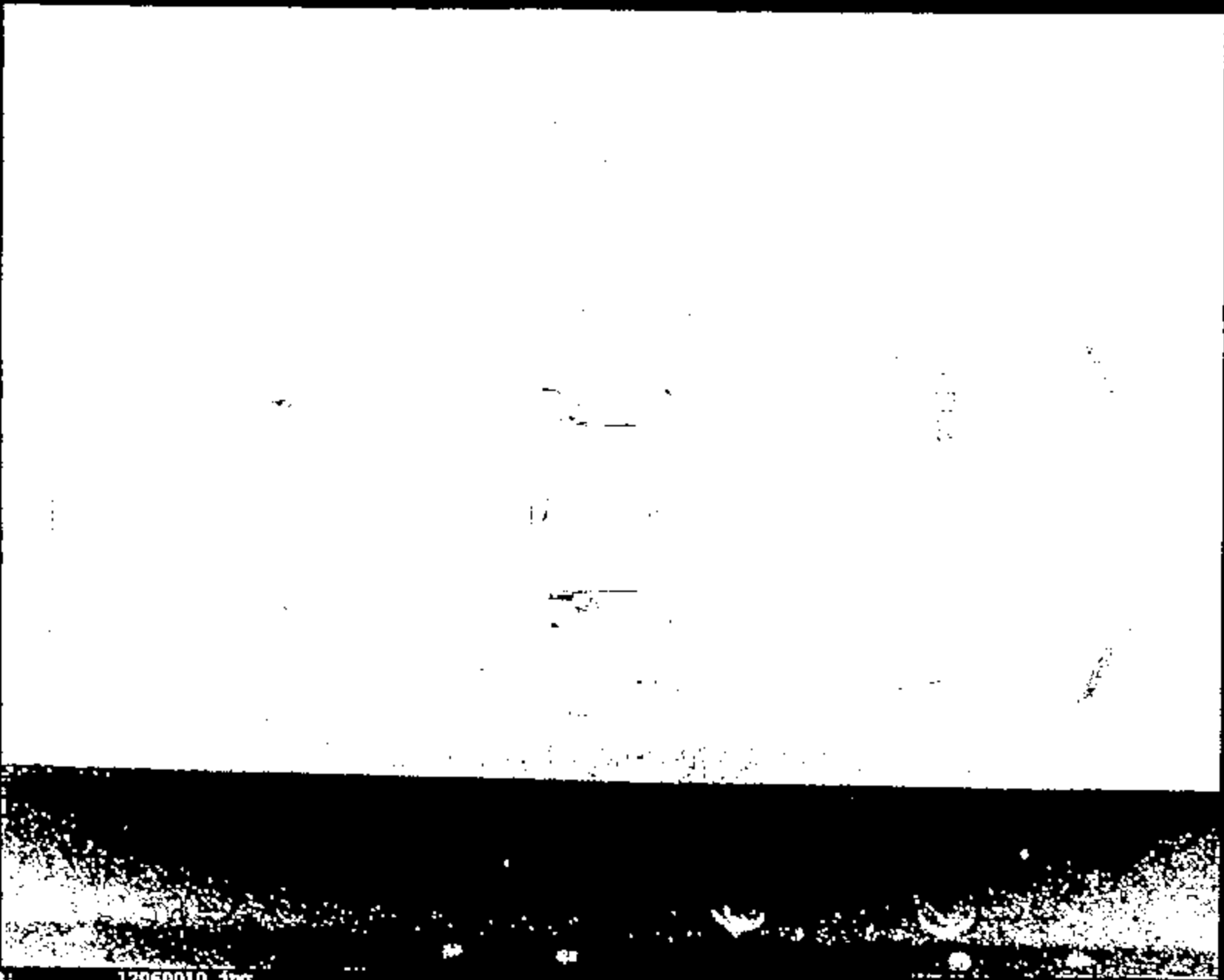
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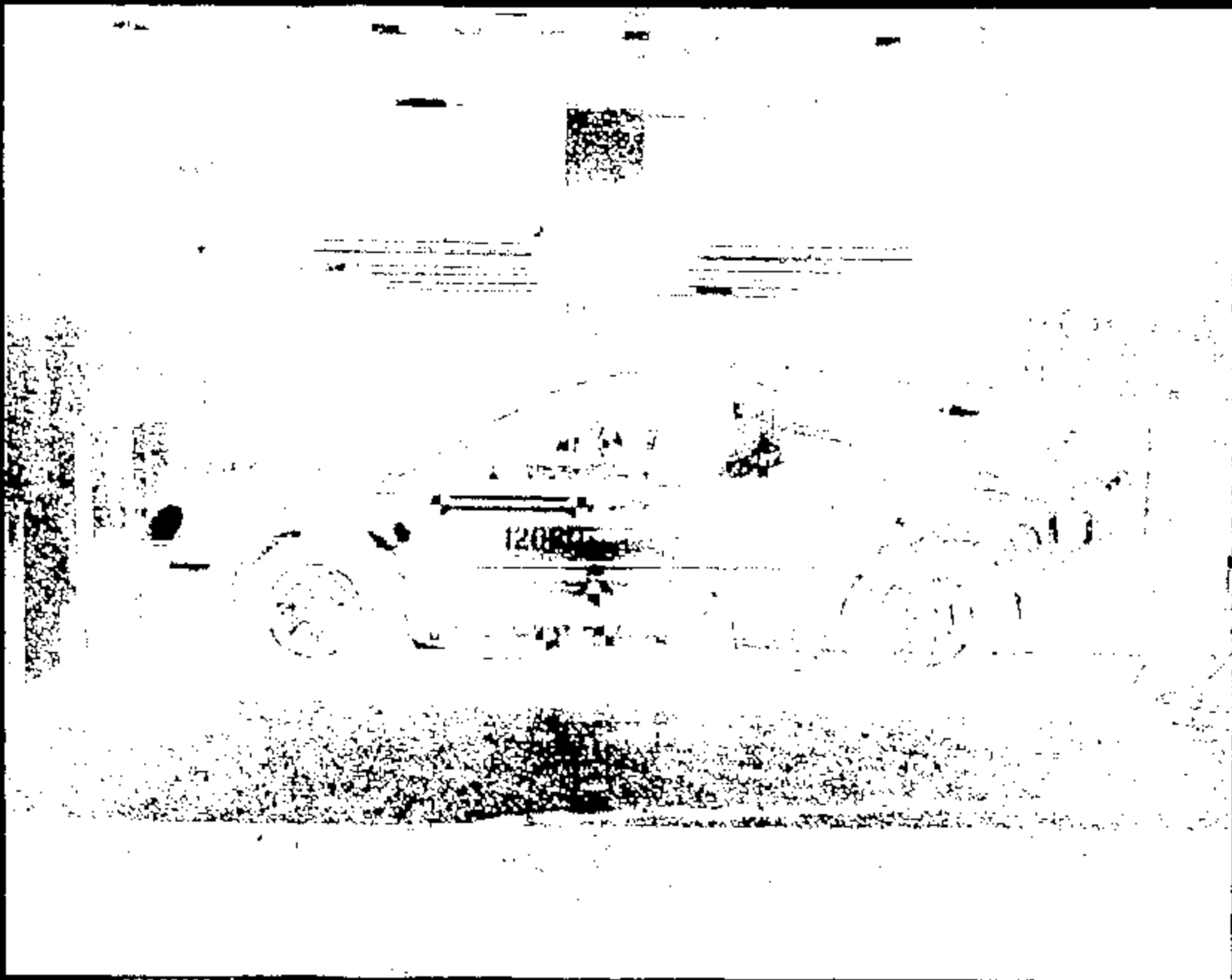
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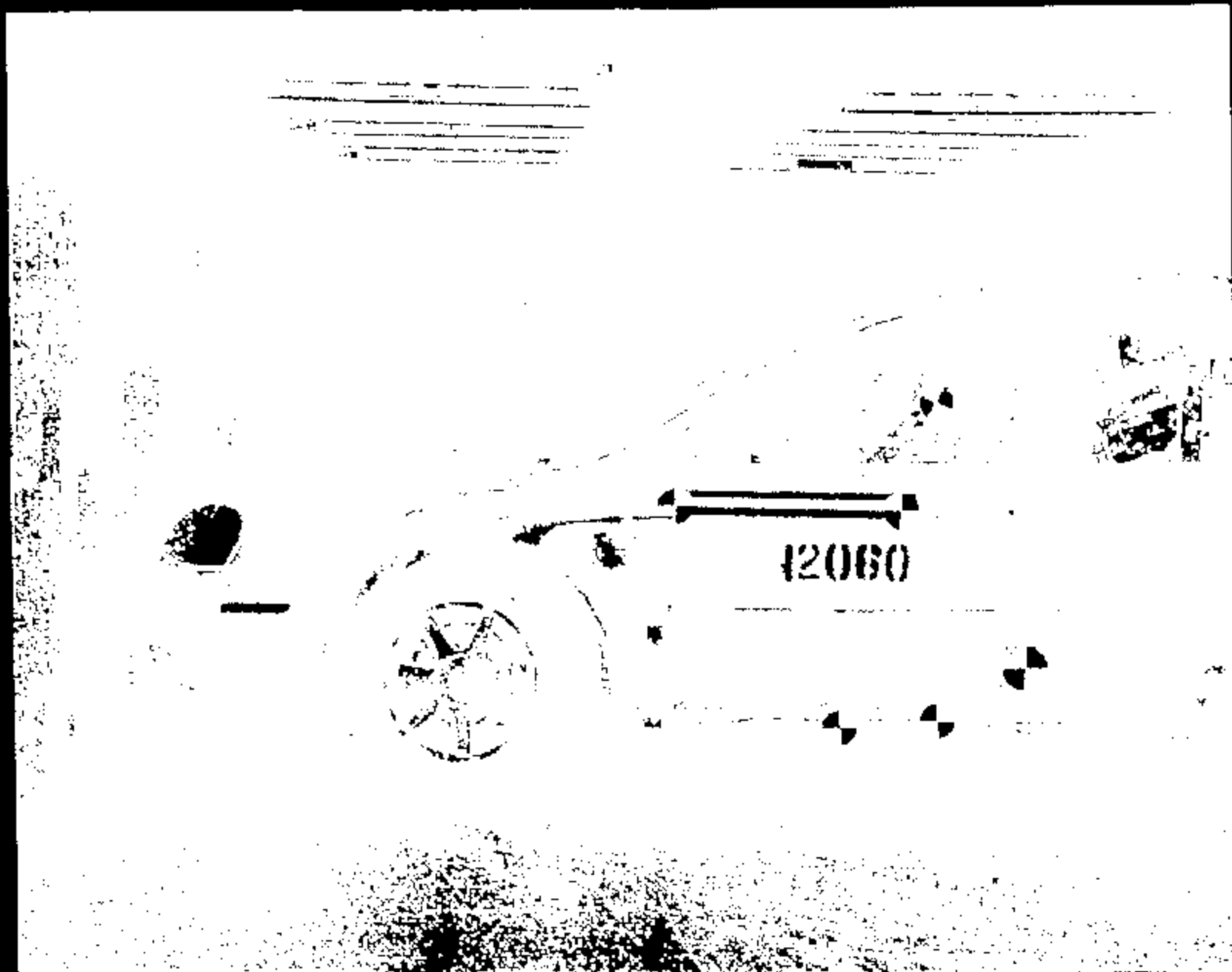
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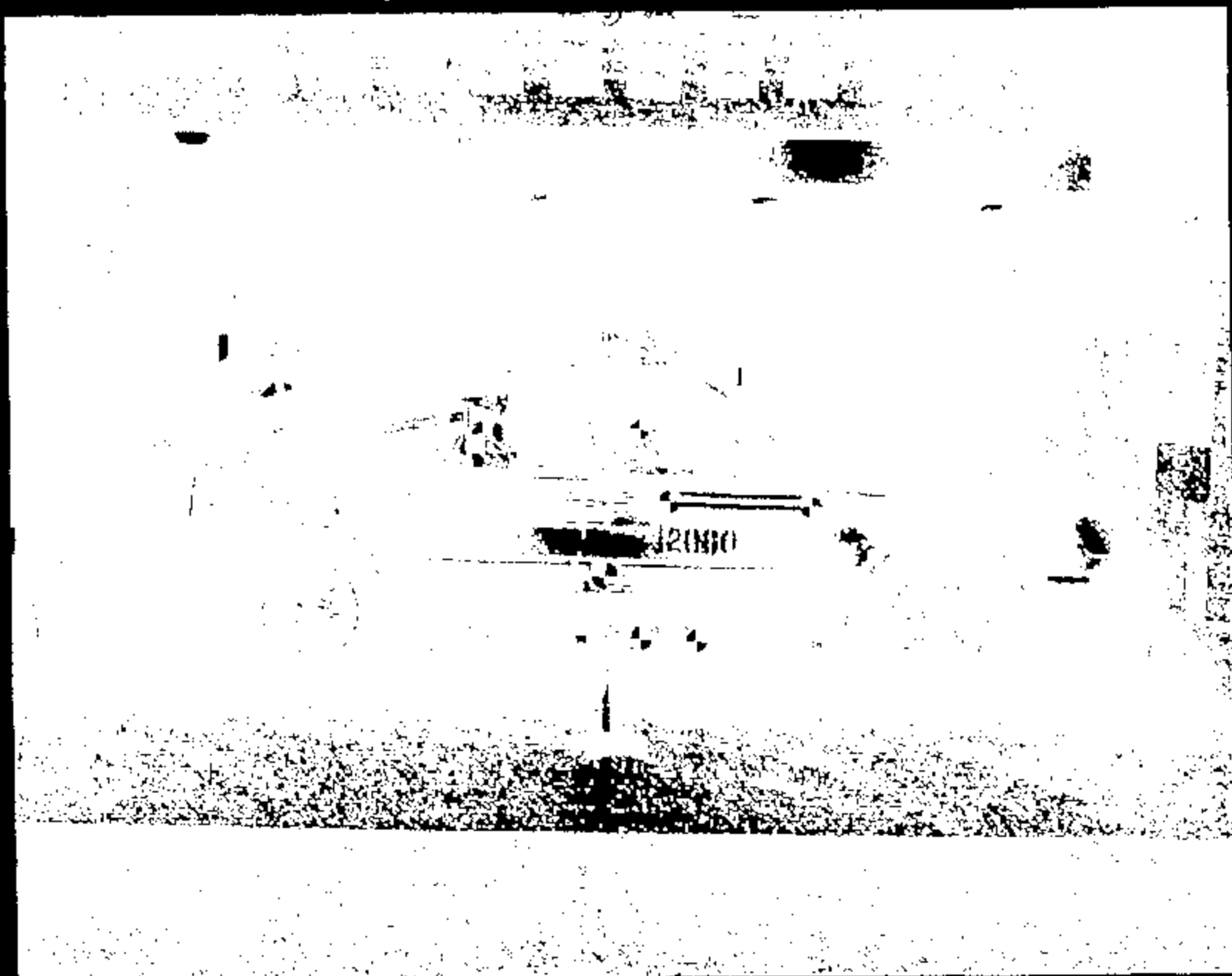
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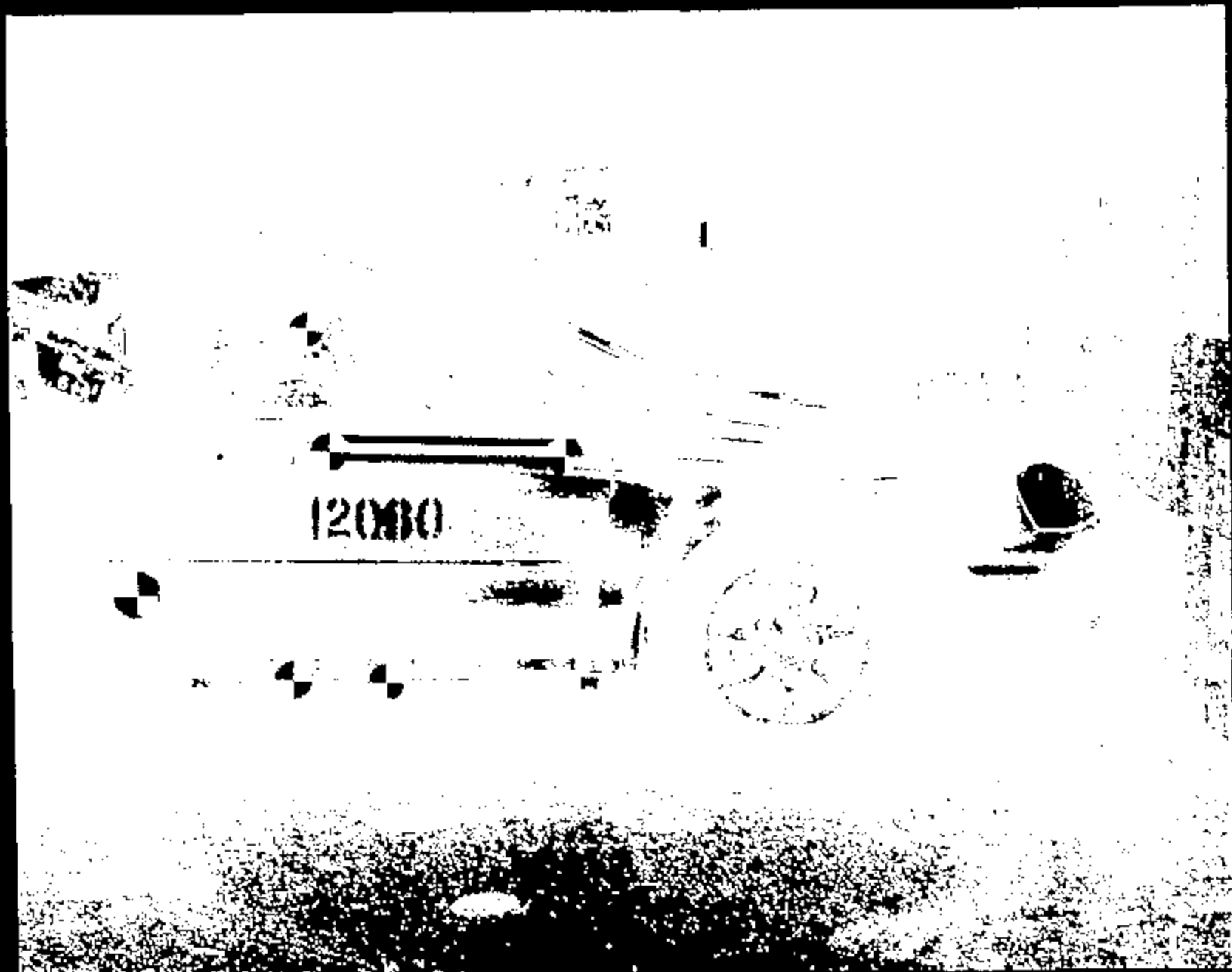




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TC 1850

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Кадр 1

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TC 1830

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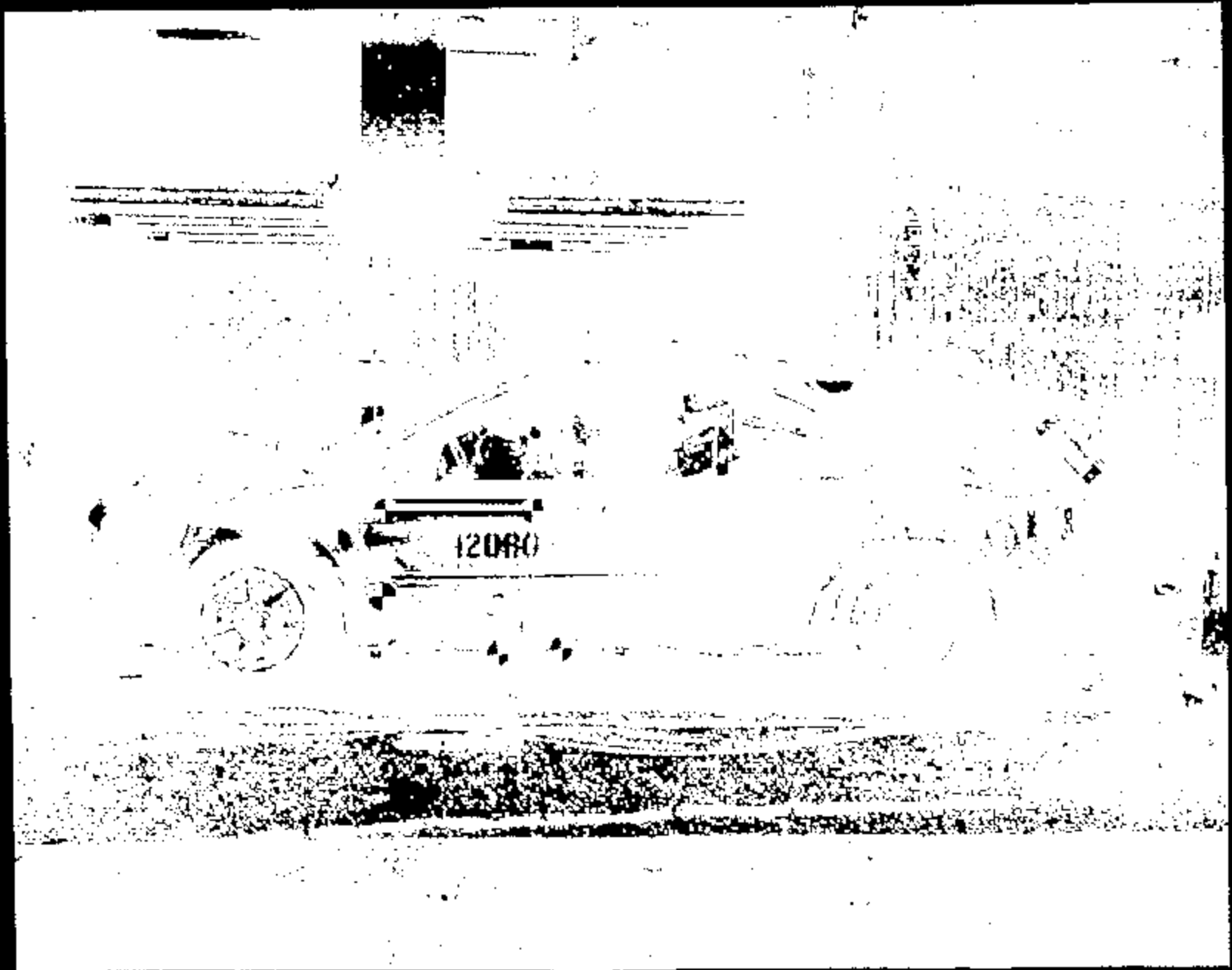
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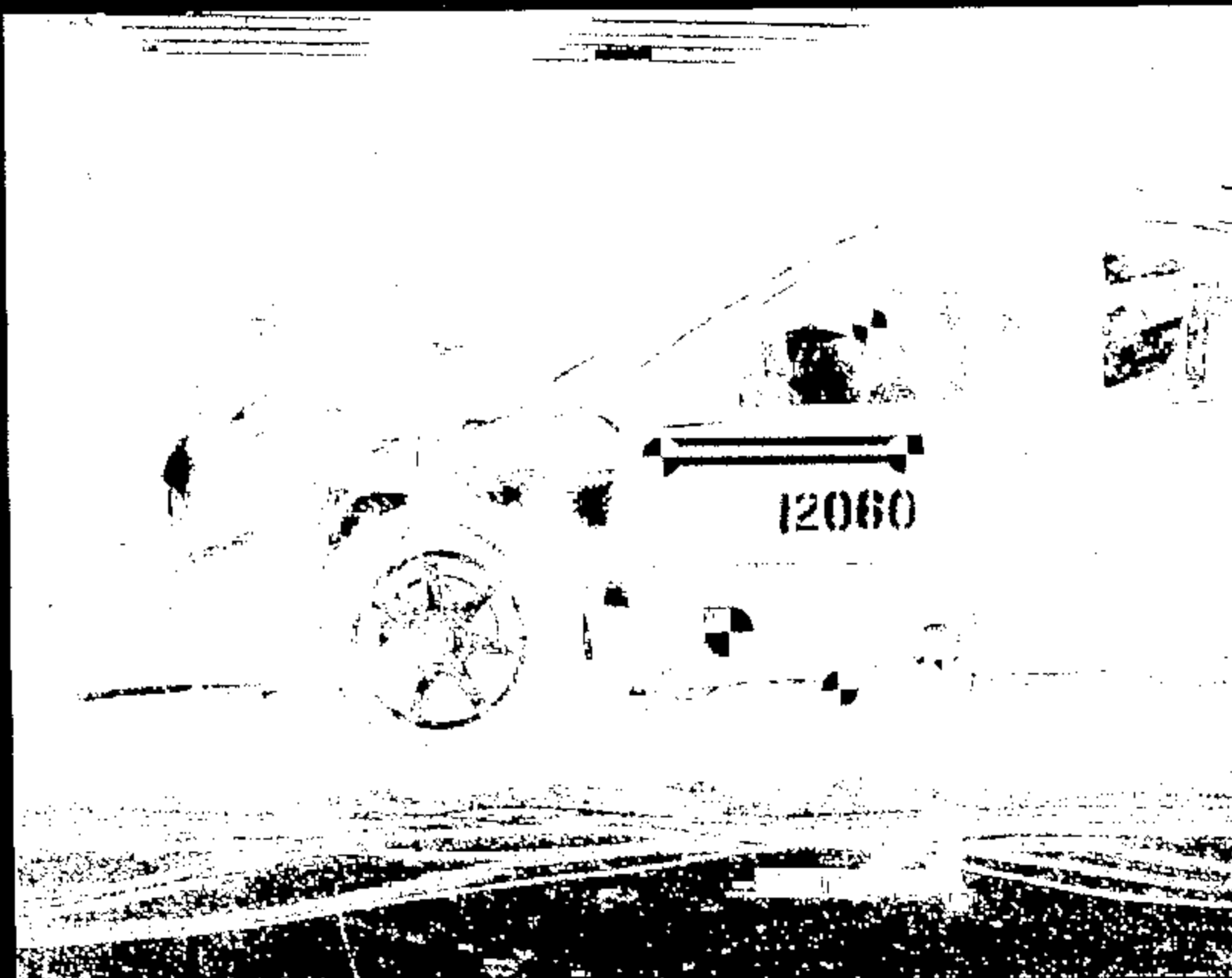
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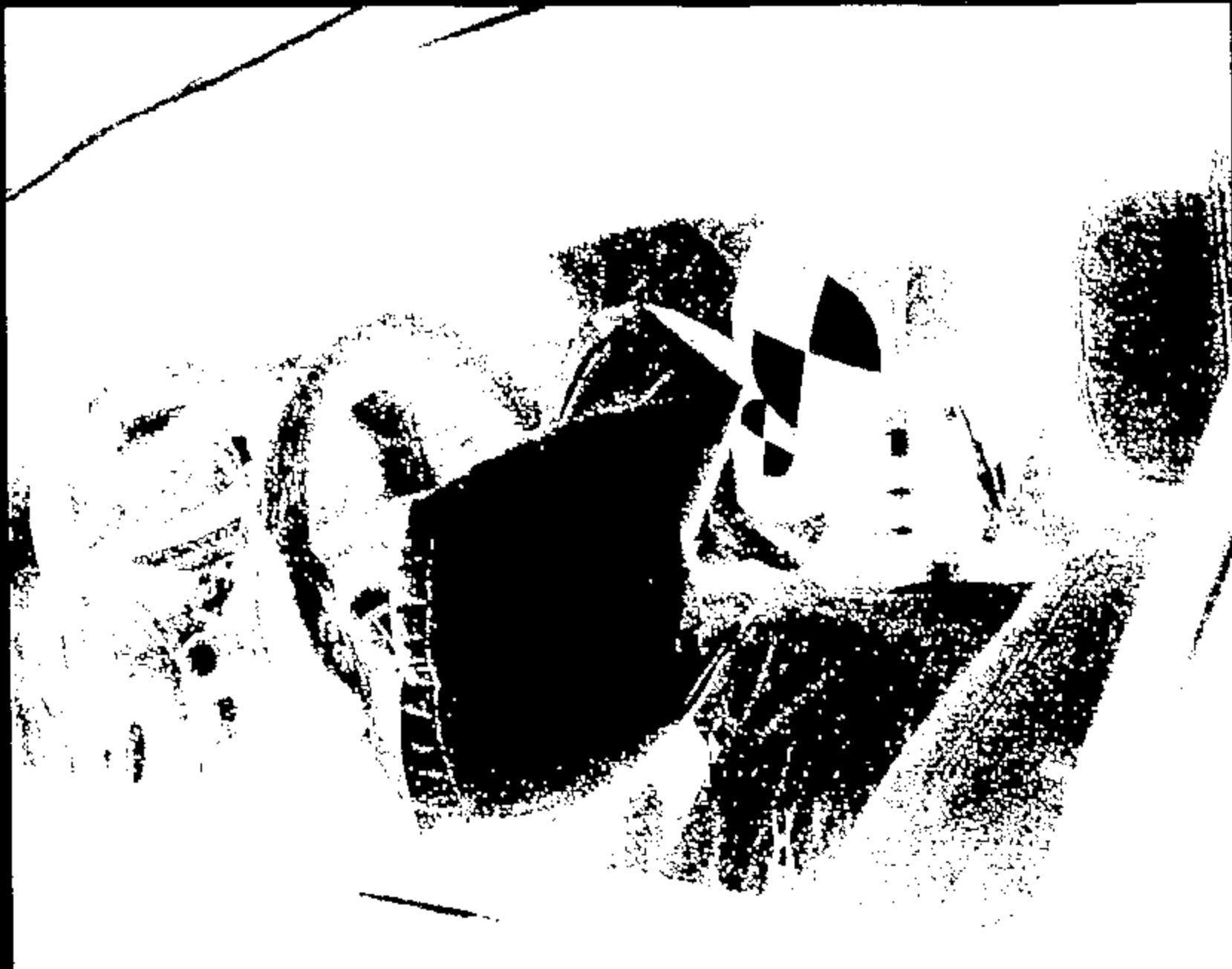
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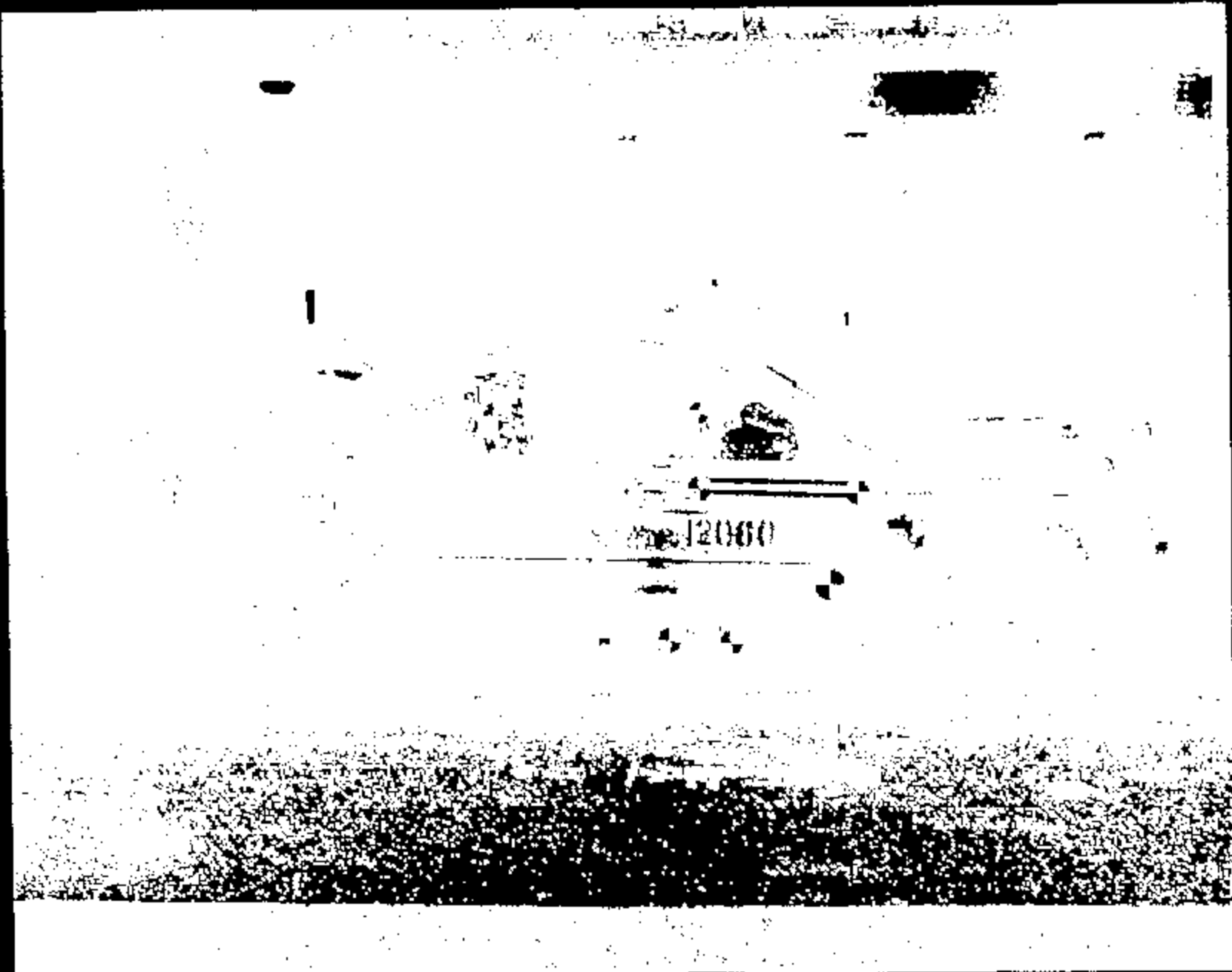


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Name : 12060027.jpg

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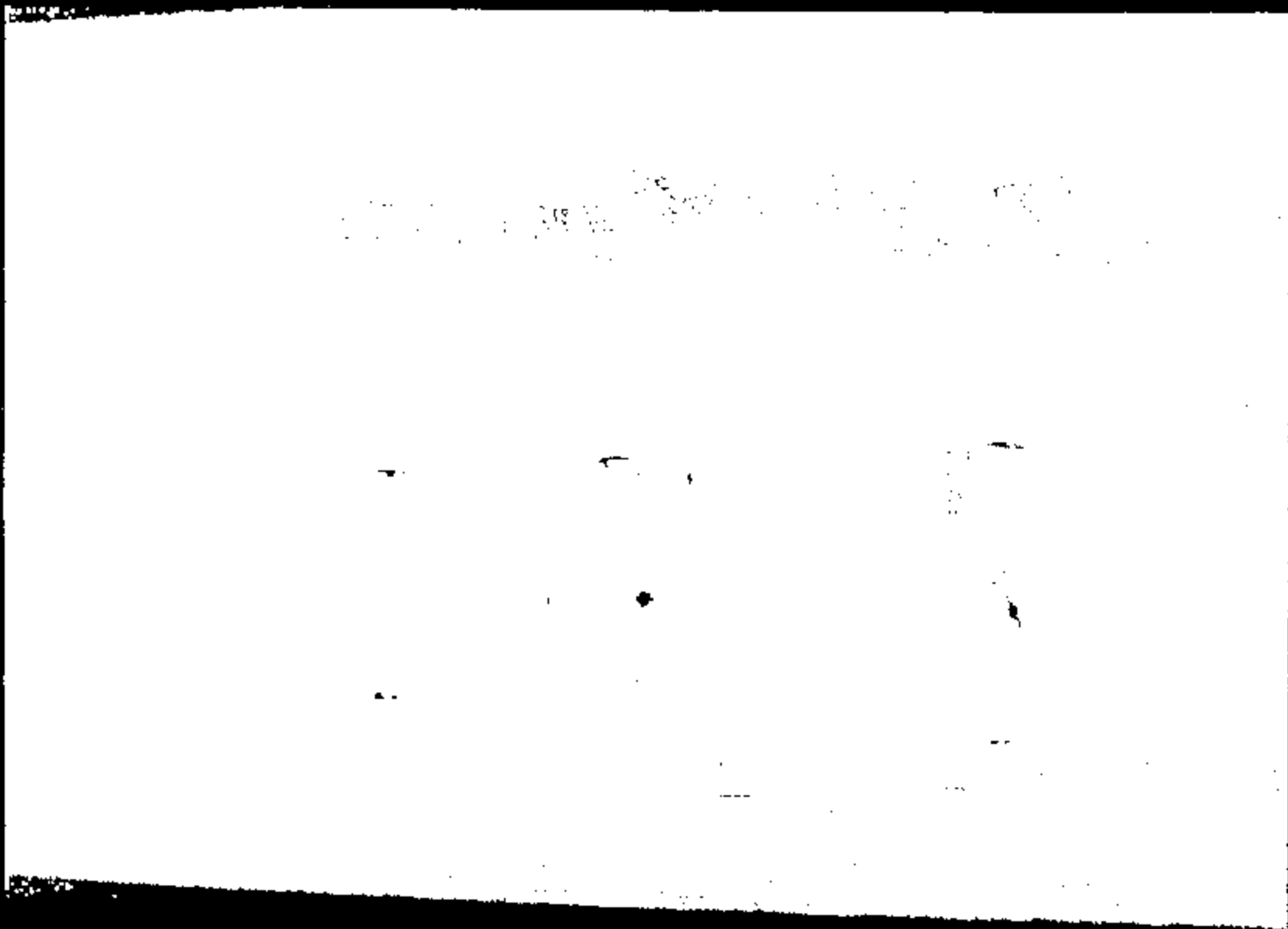
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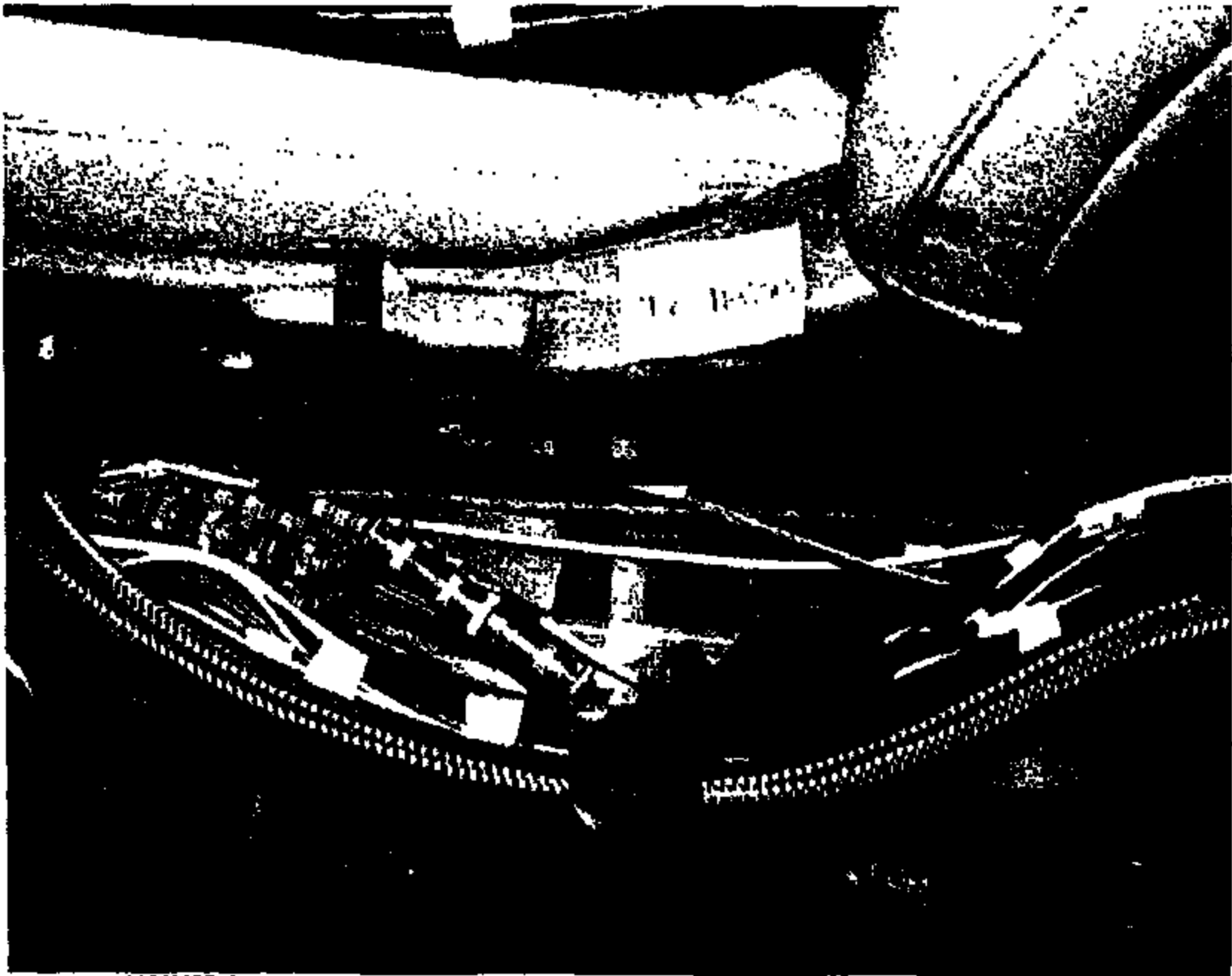


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Name: 12060035.jpg



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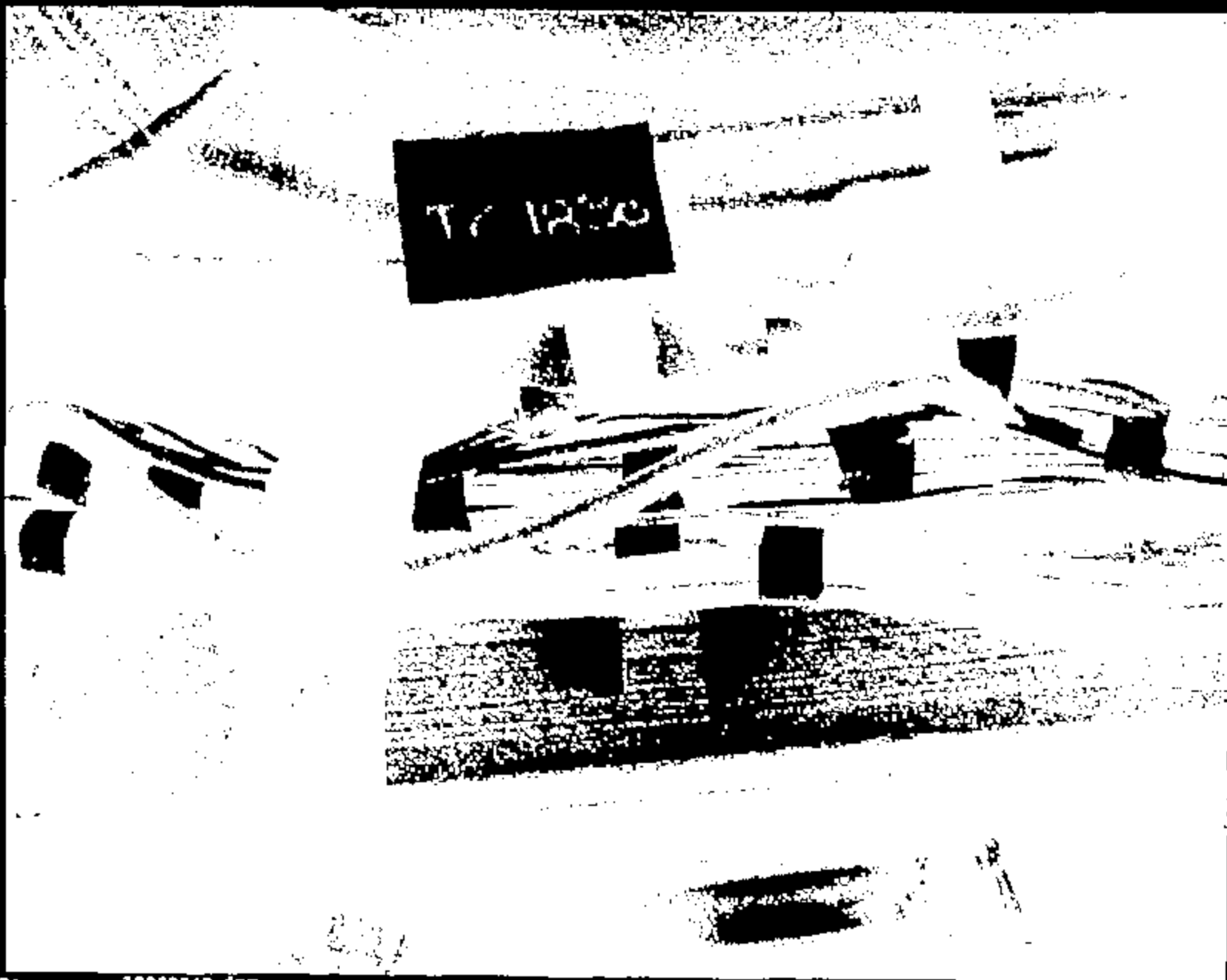


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Name: 12060041.jpg



Name:

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Name: 12060043.jpg



12060044.jpg





Name :

12060045.jpg

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Name :

12060046.jpg

CRTS 0012060



Name :

12060047.jpg



Name :

12050048.jpg

CRTS 0012060



Edf. 64009021

Image 1

CRTS 0012060



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Name :

12060051 .jpg



Name :

12060052 .jpg

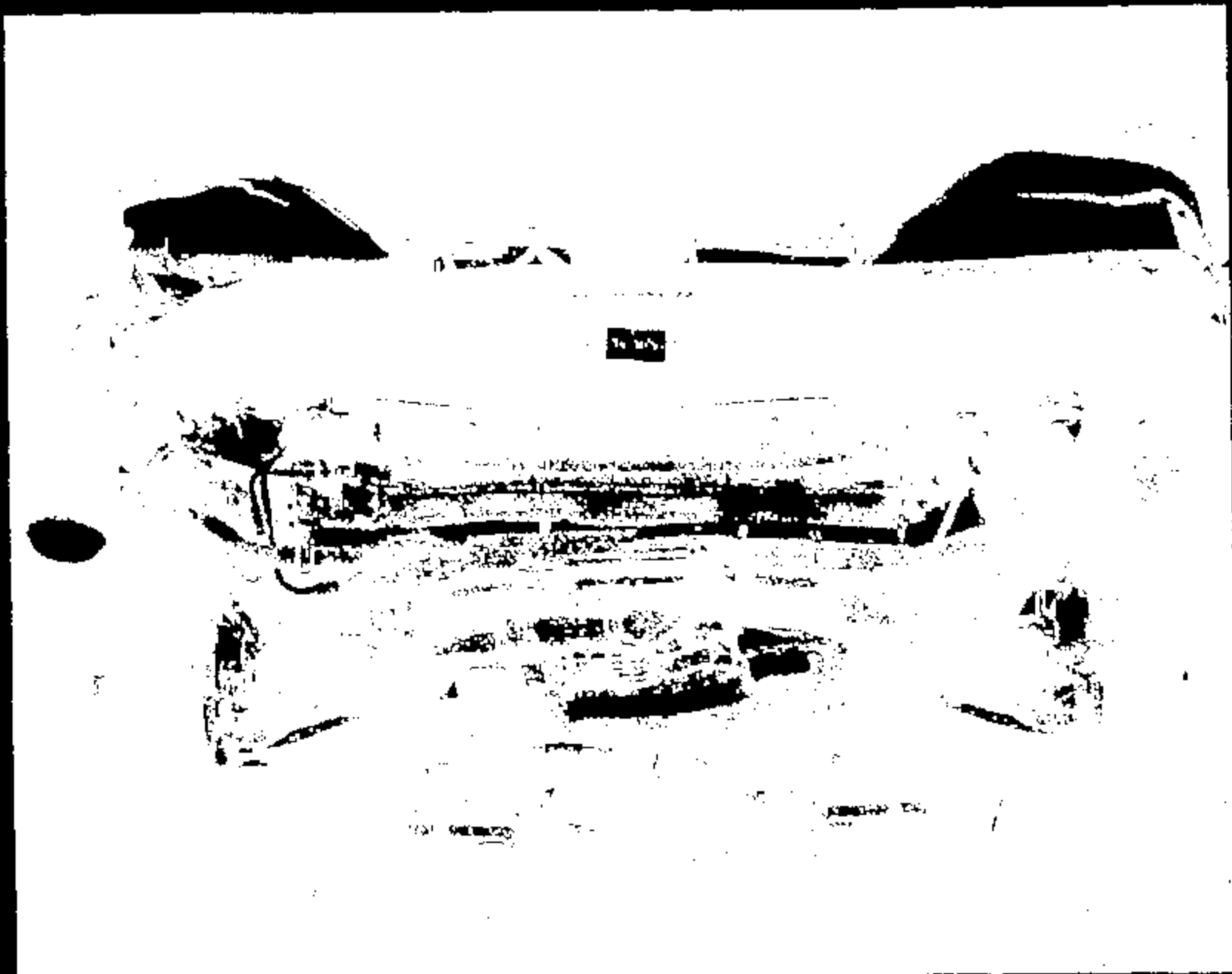




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Page 1

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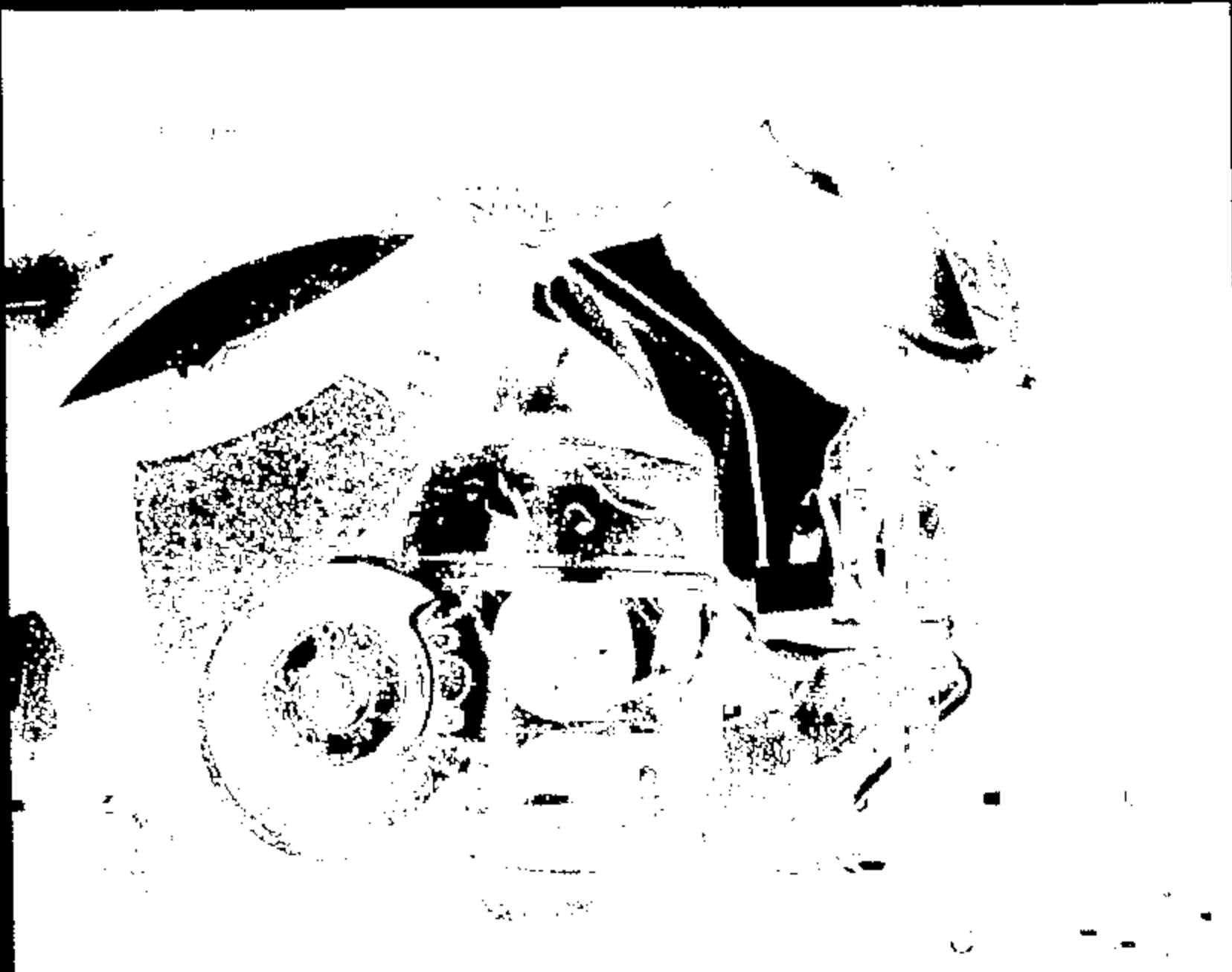


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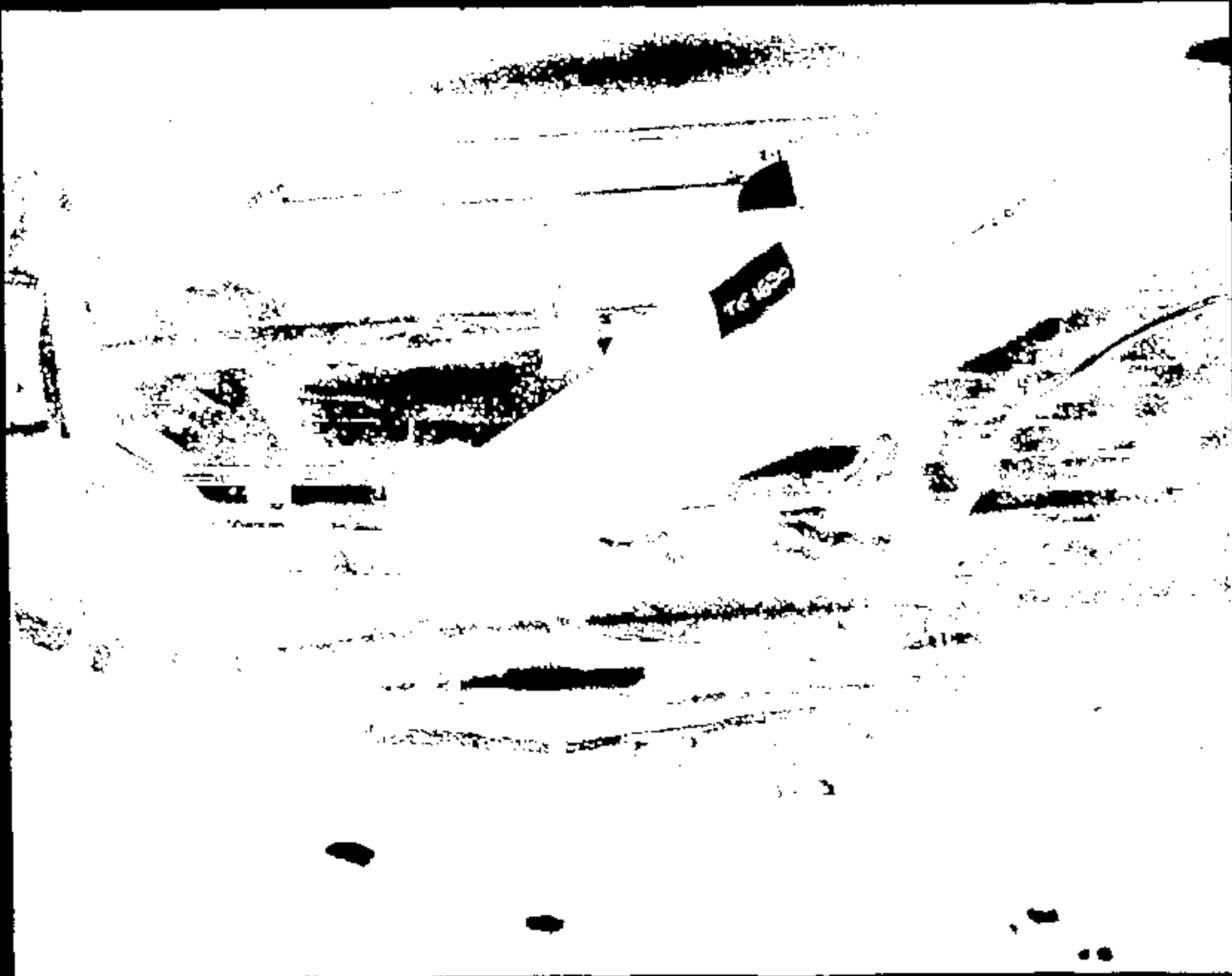
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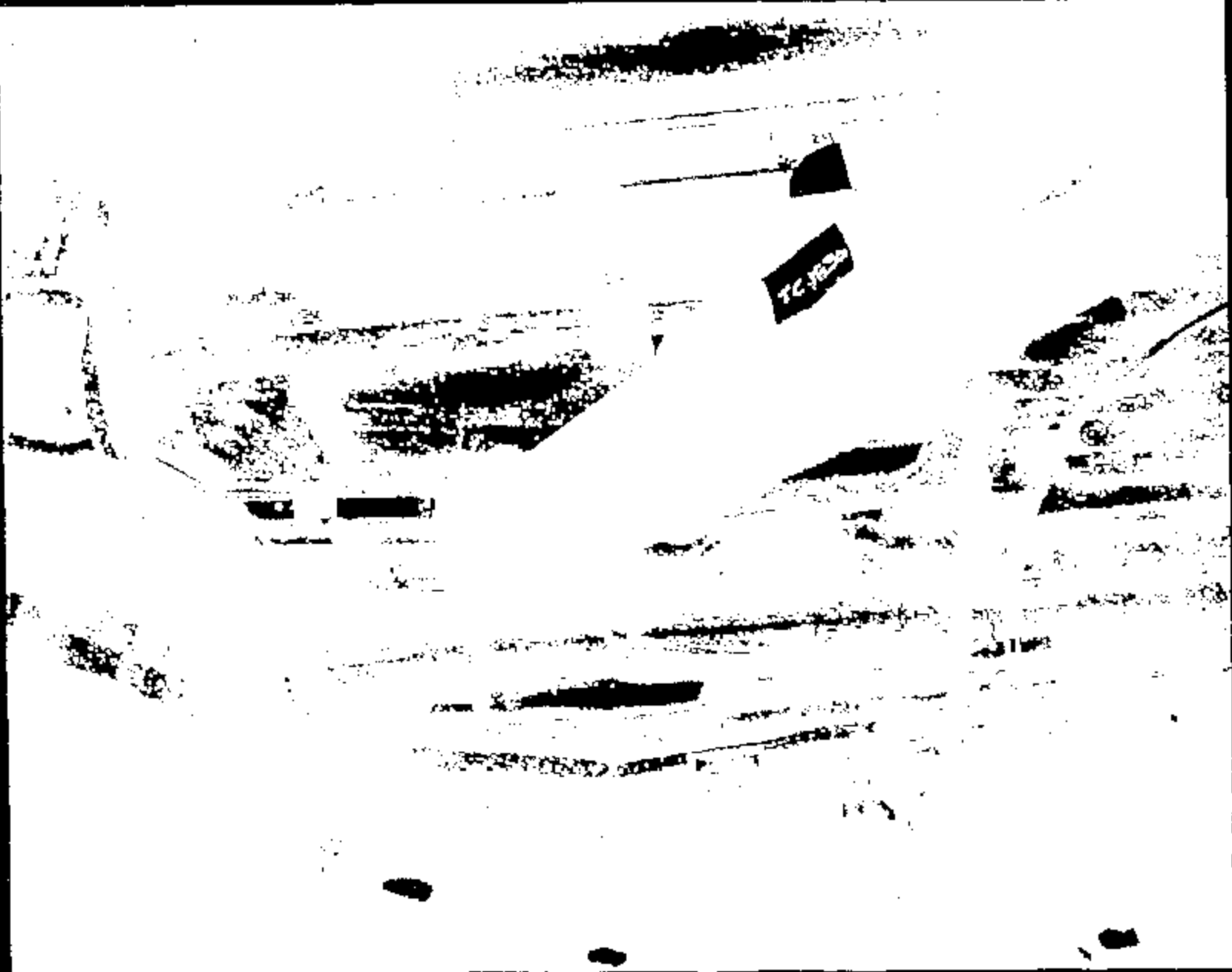
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Frame 1

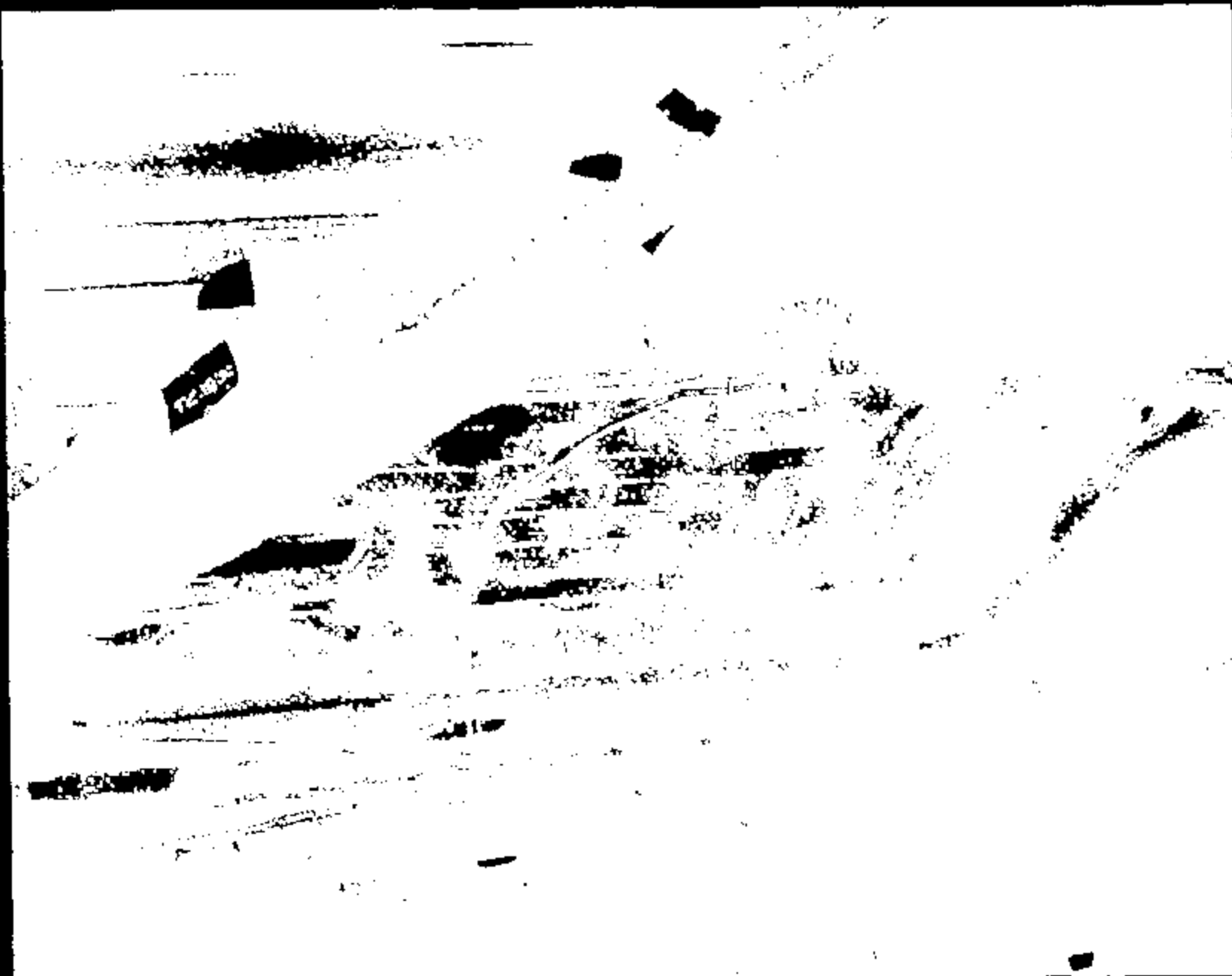
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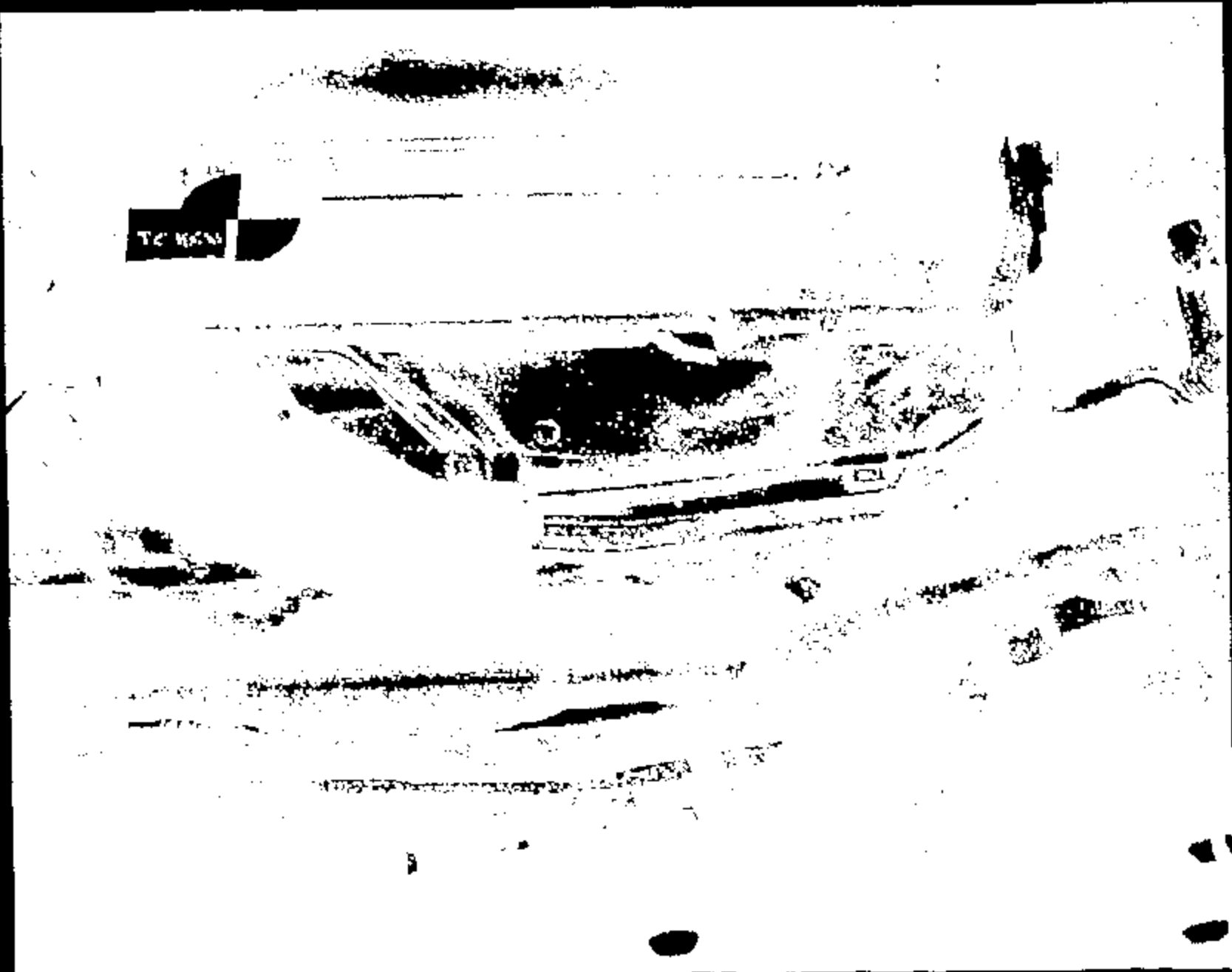


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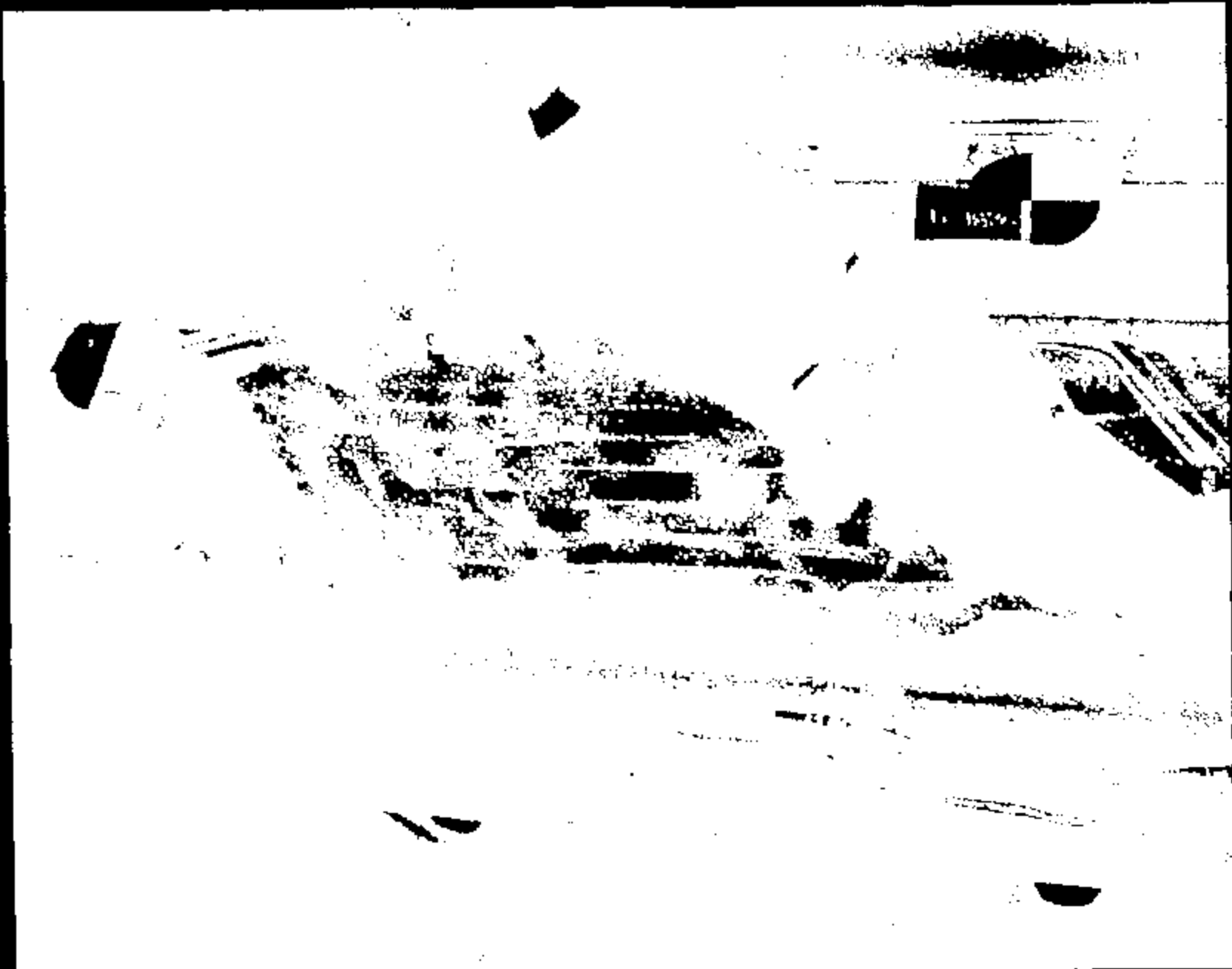
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12060056.jpg



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12060067.jpg

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12060068 .jpg

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Name :

12060069.jpg

TEST AUTHORIZATION				TEST AUTHORIZATION NUMBER: TC1880			
TO: Safety Lab Department				REQUEST DATE:	REGISTERED COMPLETION DATE:		
CC: Kirk Arthurs (KARTHURS)				10/21/00	11/4/00		
				REQUEST NUMBER:	PROJECT NUMBER:		
				n/a	n/a		
				REQUESTING ACTIVITY:			
				Vehicle Crash Safety			
TITLE OF TEST:		(speed)	(test description)	PARTS DUE DATE:			
2000 D188		25 mph	90 Degree Frontal	n/a			
TYPE OF TEST:		VEHICLE IDENTIFICATION		VEHICLE MODEL & YEAR:		PROD. OR ENG. LETTER:	
<input checked="" type="checkbox"/> VEHICLE		N/A - 2000 D188		2000 D188		n/a	
<input type="checkbox"/> LABORATORY		TEST CONDUCTED TO		DISPOSITION OF PARTS:			
		CERTIFY CONTROL ITEM		n/a			
ENGINE NO. DEPL. CARB:		TRANS / DRIVE TRAIN:	AXLE RATIO:	COMPLIANCE WITH			
N/A		Auto	n/a	GOV. REGULATIONS:			
TYPE OF FUEL:		CONVERTER:	IGNITION TIMING:	Yes			
NONE		n/a	n/a	X No			
CRANKCASE OIL AND CAPACITY (L):		TIRE SIZE		REPORT CATEGORIES:			
n/a		P215/60R16		<input type="checkbox"/> ENGINEERING			
VEHICLE TEST WEIGHT (LBS. Unless Noted)		TIRE PRESSURE (psi):		<input checked="" type="checkbox"/> DATA			
FRONT	REAR	TOTAL	FRONT	REAR	<input checked="" type="checkbox"/> RAW DATA		
2272	1578	3850	30	30	MAIL REPORT TO:		
						BLDG: BLDG #2	
						MAIL DROP: N/A	
						ADDRESS: 4770	
1. OBJECT OF TEST 2. TEST PROCEDURE 3. ITEMS TO BE TESTED (NAME, NUMBER, QUANTITY)							
1) Conduct:		(speed)	(year)	(vehicle)	(save)	Schedule No. 7-712	
		25 mph	2000	D188	Production	Retain Until 2020	
		(mode)					
		90 Degree Frontal					
2) Velocity At Impact:		35 mph		3) Vehicle Year: #2000			
Remote Fire:		was 41/100		Vehicle Line: D188			
		1st Stage: 32ms 15.5 msec		Vehicle Level: Production			
		2nd Stage: 122ms 15.5 msec					
		Pyr: N/A					
Dummy Positioning Procedure:		FMVSS 286, 8:10					
Test Requester:		(name)	(phone)	(paper number)			
John Fazio		33-81162	JFAZ	Estimated test cost = \$30,000.00			
Build Coordinator:		Allen Preston	34-88342	APRE			
Additional Contacts:		Mary Wroten	33-71730	MWRO			
Test Dev. Engineer:		<i>[Signature]</i>					
REQUESTING	WORK ORDER	ISSUED	PHONE:	APPROVAL:	TEST TYPE:	RISK:	SIGN OFF
SECT. NO.	WORK TASK:	REQUESTED BY:					DATE:
T84	P17	John Fazio	33-81162	K. Arthurs	n/a	n/a	n/a
COMPLETE THE FOLLOWING TWO QUESTIONS AS INDICATED:							
(Check appropriate boxes)				(Check appropriate boxes)			
1 - Reason for not replacing this test by CAE analysis:				2 - What is the expected Test Outcome:			
<input type="checkbox"/> No CAE Methodology or process available <input type="checkbox"/> No CAE Correlation <input type="checkbox"/> Insufficient confidence in CAE <input type="checkbox"/> To obtain basic data for CAE <input type="checkbox"/> Replacement or improvement of existing Test. <input type="checkbox"/> Testing in Outdoor. <input type="checkbox"/> Mandatory or Regulatory Certification <input type="checkbox"/> Development test for FSB <input type="checkbox"/> Not applicable. <input checked="" type="checkbox"/> Other: <u>FOR DEVELOPMENT</u>				<input type="checkbox"/> Results will meet DVP/PCR requirements. <input type="checkbox"/> System Component will not meet Test specification. <input checked="" type="checkbox"/> Unknown. <input type="checkbox"/> Above is Based on CAET <input type="checkbox"/> Other: <i>[Signature]</i> 10/25/2000			

## General Request Information

**Test Mode**

TAF: TC1830

25 mph  
90 Degree Frontal

**Test Objectives: Cert (C) Verif (V) Dev (D) Audit (A)**

**REGULATORY:**

- FMVSS 201 - Head Impact
- FMVSS 204 - Steering Wheel Displacement
- D FMVSS 208 - Frontal Occupant Protection
- FMVSS 212 - Wind Shield Retention
- FMVSS 214 - Side Impact Protection
- FMVSS 219 - Windshield Zone Intrusion
- Film Analysis
- Template
- FMVSS 301 - Fuel System Integrity
- Rollover
- Pressure Check
- FMVSS 303 - NGV Fuel System Integrity
- ECE 12 (74/297/EEC) - Protection of the Driver Against Steering Mechanism
- ECE 88 Frontal Impact - Structural Performance
- ECE 94 Fuel System Integrity
- ECE 94 Step II Frontal Offset - Occupant Performance
- ECE 95 Step II 500mm Barrier Side Impact - Occupant Performance
- 95/78/EC - Frontal Offset
- EURO-NCAP

**FORD AUTOMOTIVE OPERATIONS SAFETY DESIGN GUIDELINES:**

- D Front Impact FAO Safety Design Guidelines
- Offset Frontal FAO Safety Design Guidelines

**OTHER:**

- Sensor Development
- Other, Specify: \_\_\_\_\_

**Primary Test Vehicle Information**

Use (Target/Bullet):	BULLET
Model Year:	2000
Vehicle Program:	D186
Vehicle Name:	Sable
Body / Cab Style:	<del>3-door</del> <b>4-door</b>
Build Number:	N/A
Tax Number:	307W152
VIN Number:	1MEFM5884Y3600010
Fuel System Rated Capacity (Gal):	18
Prototype Level:	Production
Drive Side:	LH

# Special Prep/Buld Instructions Primary Vehicle

TAF: TC1830

## Special Buld Instructions

- Remove Side View Mirrors
- Remove Headrests
- Remove Hood
- Remove Arm rest
- Strip Seat Belts
- Cut Off Brake & Clutch Pedal
- Color Contrast Under Hood Components

Other, Specify:

Cut holes in driver and passenger doors for knee to IP cameras

## Pyro Restraints Usage

- Left Front Air Bag
- Right Front Air Bag
- Left Side Air Bag
- Right Side Air Bag
- Left Side Curtain
- Right Side Curtain
- Left Pyro Retractor
- Left Pyro Buckle
- Right Pyro Retractor
- Right Pyro Buckle

Other, Specify:

Remove Fire Time: (No fire time listed if sensor fired OR if no pyro restraints are used)  
15.5 ms Single Stage or Stage 1 155 ms Stage 2 0 Pyro Belts

Remove back-up Fire Times:  
Single Stage or Stage 1 Stage 2 Pyro Belts

## Special Pre-Test Preparation

Other, Specify:

**Occupant / ATD Request  
Primary Vehicle**

TA#: TC1890

	<i>Occupant 1</i>	<i>Occupant 2</i>
<b>Type</b>	<u>5% Hybrid 3</u>	<u>5% Hybrid 3</u>
<b>Instrumentation Level*</b>	<u>DEVELOPMENT</u>	<u>DEVELOPMENT</u>
<b>In-Vehicle Location</b>	<u>LF</u>	<u>RF</u>
<b>Verify:</b>		
<b>Seat Position Long</b>	<u>Full Forward</u>	<u>Full Forward</u>
<b>Seat Position Vert</b>	<u>Mid Position</u>	<u>Mid Position</u>
<b>Seat Back Angle</b>	<u>FMVSS 208, 8:16</u>	<u>FMVSS 208, 8:16</u>
<b>D-Ring Position</b>	<u>N/A</u>	<u>N/A</u>
<b>Positioning Procedure</b>	<u>FMVSS 208, 8:16</u>	<u>FMVSS 208, 8:16</u>
<b>Use Foot Rest</b>	<u>NO</u>	<u>NO</u>
<b>Take Seat Track Video</b>	<u>YES NO</u>	<u>YES NO</u>
<b>Special Positioning Instructions</b>	<u>MW 11/17/00</u>	
<b>Dummy Adjustment</b> (arm angle)	<u>N/A</u>	<u>N/A</u>
<b>Occupant Belted</b>	<u>NO</u>	<u>NO</u>

\*See instrumentation request for detailed instrumentation information.

## Test Conditions - Final Prep

TAR: TC1830

### Final Prep Contacts

ONE of these MUST be present during weigh-up & final prep

Test Engineer	Request Engineer	Build Coordinator
Name: _____	John Fazio	Allen Preston
Phone: _____	32-51162	24-66942
Pager: _____	JFAZ	APRE

### Test Weight

<input type="checkbox"/> Minimum Option Weight <input checked="" type="checkbox"/> 99% Option Weight <input type="checkbox"/> Maximum Option Weight	GVWR: _____ Wheelbase: _____
---	---------------------------------

### Tire Pressure

Front: 30 psi                      Rear: 30 psi

### Fuel System

Fuel Tank & System to Contain: NONE

.0 gallons	=	0 %	x	18.0 gallons
Fill Level	=	%	x	Capacity

### Weight Targets

If required weight distribution is UNACHIEVABLE, please note allowable variances.

	Requested Test Weight	Acceptable Test Weight Variances		Actual Test Weight
		High (+)	Low (-)	
Front: _____	<u>2,272 lbs</u>	Front: <u>19 lbs</u>	<u>0 lbs</u>	Front: <u>2280</u>
Rear: _____	<u>1,879 lbs</u>	Rear: <u>19 lbs</u>	<u>0 lbs</u>	Rear: <u>1964</u>
Total: _____	<u>4,151 lbs</u>	Total: <u>28 lbs</u>	<u>0 lbs</u>	Total: <u>4144</u>

Rated Luggage Load: 800 lbs

### Structure/Verify at Weigh-Up

Dummy Weight \_\_\_\_\_

On Board Camera Count \_\_\_\_\_

### Weight Addition (Restrictions)

Do NOT place any weight in the following locations:

<input checked="" type="checkbox"/> Air Cleaner	<input checked="" type="checkbox"/> Engine	<input type="checkbox"/> Doors
<input checked="" type="checkbox"/> Battery	<input checked="" type="checkbox"/> Fan Box/Blroud	<input type="checkbox"/> Foot Wells - Front
<input checked="" type="checkbox"/> Bottle - Coolant	<input checked="" type="checkbox"/> Headlamp Opngs	<input type="checkbox"/> Foot Wells - Rear
<input checked="" type="checkbox"/> Bottle - Washer	<input checked="" type="checkbox"/> Radiator	<input type="checkbox"/> Quarter Panels
		<input type="checkbox"/> Trunk Floor

Other: \_\_\_\_\_

### Ride Heights

Measure @ Test Weight

Front: Level Rocker to Ground

Rear: Level Rocker to Ground

Measure

Front: \_\_\_\_\_

To: \_\_\_\_\_

100 LB IN FRONT

### Additional Remarks

DO NOT fill tank with standard until weigh-up

**Dimensional Analysis Request  
Primary Vehicle**

TAR: TC1530

**Frontal Impacts**

74		
81		
106	Control Points (GAR)	Exterior
107		
108	Collage Distance Points	Exterior
128	Frame/Rt. Col/ Eng. for Brakes (GAR)	Exterior
130	Frame Standard Bottom (GAR)	Exterior
132	Uniford Standard Bottom (GAR)	Exterior
134	Drive Shaft Collage	Exterior
136	Standard Body Relative	Exterior/Interior
138	Windshield (CAR/FST/C)	Exterior
140	SH & Piller	Exterior
X 142	Shot-Guns	Exterior
X 148	Roof	Interior
X 150	Steering Wheel Deformation/ Patching	Interior
X 153	Steering Column Mounts	Interior
154	Steering Column Torque	Interior
155		
X 158	Seat Tank to Floor Mounts	Exterior
X 160	Seat to Track Mounts	Exterior
X 160	Cowl Rotation	Exterior
X 161	Floorpan Points	Exterior
164	Knee Bolster	Interior
166	Seat Belt Mounts	Interior
168	Control Seat	Interior
170	Tunnel Hinge Piller	Exterior
172	Shake Bucket (ONLY if you can reach it)	Interior
174	Instrument Panel Mounts	Exterior
178	T-N-T Torque	Exterior/Interior
177	Top Non-Skid & Body Skid	Exterior/Interior
205	Rear Door Acoustic Radiation	
200		
202		
205		
206		
204		
278		
486	Plot of Sectional Profiles	
506	Decompression Column Collage	Exterior
507	P.H. Steering Column Collage	Exterior
509		
509	TR Steering Column Collage & Intermediate Shot	Interior
X 540	Dash Profile @ Driver Centerline	Interior
X 541	Dash Profile @ Vehicle Centerline	Interior
X 542	Dash Profile @ Passenger Centerline	Interior
547	Forward Radiation	Interior
X 580	1 All pre and post crash assets	

MW 11-600X Delete All external pre & post-crash DA

# Film Analysis & Photographic Services Request

## Front Impact Film Analysis

TAF: TC1630

- Head WRT Vehicle
- Shoulder WRT Vehicle
- Rocker WRT Ground

Other, Specify:

\_\_\_\_\_  
\_\_\_\_\_

## Still Photography

- Pre Test Documentation Photographs
- Post Test Documentation Photographs

## High Speed Photographic Requirements

- 1 Copies of High Speed Film Required
- Copies of High Speed Film Required in VHS Format
- Digitization of Driver/ Passenger Kinematics Format

## High Speed Cameras for Front Impact

### On-Board Vehicle

- Onboard - LEFT Occupant Over Shoulder
- Onboard - RIGHT Occupant Over Shoulder
- Onboard - Driver "D" Ring
- Onboard - Driver Buckle
- Onboard - Driver Retractor (Lower)
- Onboard - Driver Lower Torso to I/P Contact, From Rear, Cross Car
- Onboard - Passenger Lower Torso to I/P Contact, From Rear, Cross Car
- Onboard - Passenger "D" Ring
- Onboard - Passenger Retractor (Lower)
- Onboard - Driver Door (Left Knee-to-Elbow) **CALL REQUESTOR FOR SETUP**
- Onboard - Passenger Buckle
- Onboard - Passenger Door (Knee-to-IP) **CALL REQUESTOR FOR SETUP**
- Onboard - Photo Sonic (Intermediate Shaft) - From Floor
- Onboard - Photo Sonic (Intermediate Shaft) - Side View From Tunnel
- Onboard - Fiber Optics (Intermediate Shaft) - From Floor
- Onboard - Fiber Optics (Intermediate Shaft) - Side View From Tunnel

dear  
me  
11-6-00



**Floor Coverage**

TA#: TC1850

- Left Occupant Over Shoulder, On tripod, from rear, cross car
- Right Occupant Over Shoulder, On tripod, from rear, cross car
- Left Occupant Over Shoulder, In lights
- Right Occupant Over Shoulder, In lights
- Overall Left
- Barrier to B-Pillar Left
- Dummy Kinematics & Velocity Left
- Overall Right
- Barrier to B-Pillar Right
- Dummy Kinematics & Velocity Right
- Top of Barrier - Overall View of Windshield
- Top of Barrier - Driver
- Top of Barrier - Passenger
- Left Front Rail Extension Bumper Close-up
- Right Front Rail Extension Bumper Close-up

**Overhead Coverage**

- Overhead - Overall
- Overhead - A-Pillar Forward
- Steering Column Displacement
- Scale
- Reception

*overhead - through moonroof to occupant -> FP  
 insertion on driver/pass. Call  
 Requester on setup & prior  
 to pullback. MW 11-6-00*

**Pit Coverage**

- Pit - Overall
- Pit - A-Pillar Forward
- Pit - L/R Frame Horns (Chassis)
- Pit - L/R Front Rails #1 X/M Rearward
- Pit - Steering Gear Close-up
- Pit - Fuel Tank
- Pieces of Plex-Glass to be removed from pit.

**All Other High Speed Photography**



# Primary Vehicle Systems Instrumentation

TA#: TC1830

## SENSOR ACCELS:

     See Sensor Map

## MONITOR AIR BAG SENSORS:

     See Sensor Map  
     Monitor Closure of Each Specified Sensor  
     Monitor Closure of Single Pt Elect Sensor

## MONITOR AIR BAGS STATUS:

Two Stage Air Bags  
 Driver Squib Voltage  
 Driver Squib Current  
     Driver Bag Pressure  
 Passenger Squib Voltage  
 Passenger Squib Current  
     Passenger Bag Pressure  
     Passenger Inflator Pressure

## RESTRAINT LOADS:

Left Pyro-Technic Buckle Squib Voltage  
 Left Pyro-Technic Buckle Squib Current  
 Right Pyro-Technic Buckle Squib Voltage  
 Right Pyro-Technic Buckle Squib Current  
 Lightweight Left Lap Belt at Anchor Load  
 Lightweight Left Torso Belt at Retr. Load  
 Lightweight Left Torso Belt at D-ring Load  
 Lightweight Right Lap Belt at Anchor Load  
 Lightweight Right Torso Belt at Retr. Load  
 Lightweight Right Torso Belt at D-ring Load

*delete  
11-6-00  
M.W.*

## STEERING COLUMN:

*JVF*      Stroke Break Wires  
*DATE*      L & R Shear Module Break Wires  
     Tilt Mechanism Break Wires  
*JVF*      Steering Column String Pot  
 Load Cell (5 Axis)

## SWITCHES:

     Engine to Rad Support left  
     Engine to Rad Support center  
     Engine to Rad Support right  
     Other

## FUEL SYSTEM:

Inertia Fuel System Cut-Off Switch

## VEHICLE STRING POTS:

## OTHER VEHICLE ELECTRICAL SYSTEM INSTRUMENTATION:

**Dummy Instrumentation - Internal**

5% Hybrid 8

LF

**ACCELS:**

- Head C.G.
- Chest
- Pelvis

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> Long | <input checked="" type="checkbox"/> Vert | <input checked="" type="checkbox"/> Lat |
| <input checked="" type="checkbox"/> Long | <input checked="" type="checkbox"/> Vert | <input checked="" type="checkbox"/> Lat |
| <input checked="" type="checkbox"/> Long | <input checked="" type="checkbox"/> Vert | <input checked="" type="checkbox"/> Lat |

**LOAD CELLS:**

- Neck Upper Load
- Neck Upper Moment
- Neck Lower Load
- Neck Lower Moment (no Mz on 5%)
- Thoracic Load
- Thoracic Moment
- Lower Lumbar Load
- Lower Lumbar Moment
- L/Femur Load
- L/Femur Moment
- R/Femur Load
- R/Femur Moment
- L/Up/Tibia Load
- L/Up/Tibia Moment
- R/Up/Tibia Load
- R/Up/Tibia Moment
- L/Low/Tibia Load
- L/Low/Tibia Moment
- R/Low/Tibia Load
- R/Low/Tibia Moment

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> Fx | <input type="checkbox"/> Fy            | <input checked="" type="checkbox"/> Fz |
| <input type="checkbox"/> Mx            | <input checked="" type="checkbox"/> My | <input type="checkbox"/> Mz            |
| <input type="checkbox"/> Fx            | <input type="checkbox"/> Fy            | <input type="checkbox"/> Fz            |
| <input type="checkbox"/> Mx            | <input type="checkbox"/> My            | <input type="checkbox"/> Mz            |
| <input type="checkbox"/> Fx            | <input type="checkbox"/> Fy            | <input type="checkbox"/> Fz            |
| <input checked="" type="checkbox"/> Fx | <input type="checkbox"/> Fy            | <input checked="" type="checkbox"/> Fz |
| <input type="checkbox"/> Mx            | <input checked="" type="checkbox"/> My | <input type="checkbox"/> Mz            |
| <input type="checkbox"/> Mx            | <input type="checkbox"/> My            | <input checked="" type="checkbox"/> Fz |
| <input type="checkbox"/> Mx            | <input type="checkbox"/> My            | <input checked="" type="checkbox"/> Fz |
| <input type="checkbox"/> Fx            | <input type="checkbox"/> Fy            | <input checked="" type="checkbox"/> Fz |
| <input type="checkbox"/> Mx            | <input type="checkbox"/> My            | <input type="checkbox"/> Mz            |
| <input type="checkbox"/> Fx            | <input type="checkbox"/> Fy            | <input type="checkbox"/> Fz            |
| <input type="checkbox"/> Mx            | <input type="checkbox"/> My            | <input type="checkbox"/> Mz            |
| <input type="checkbox"/> Fx            | <input type="checkbox"/> Fy            | <input type="checkbox"/> Fz            |
| <input type="checkbox"/> Mx            | <input type="checkbox"/> My            | <input type="checkbox"/> Mz            |

**POTENTIOMETERS:**

- Chest Deflection
- Left Knee Slider
- Right Knee Slider
- Ball Bearing
- Ball Bearing

- Disp
- Disp
- Disp

**OTHER INTERNAL DUMMY INSTRUMENTATION:**

- L/R Femur Accels (not on 5% dummies)
- L/R Ankle soft bumper to foot stem
- Long

**Dummy Instrumentation - External**

**CONTACT SWITCHES:**

- L/Knee Contact
- R/Knee Contact
- Header

**STRING POTS:**

- Pelvis
- L/Knee
- R/Knee

**Dummy Instrumentation - Internal**

5% Hybrid 3

RF

**ACCELS:**

Head C.G.  
 Chest  
 Pelvis

Long  Vert  Lat  
 Long  Vert  Lat  
 Long  Vert  Lat

**LOAD CELLS:**

Neck Upper Load  
 Neck Upper Moment  
 Neck Lower Load  
 Neck Lower Moment (no Mz on 5%)  
 Thoracic Load  
 Thoracic Moment  
 Lower Lumbar Load  
 Lower Lumbar Moment  
 L/Femur Load  
 L/Femur Moment  
 R/Femur Load  
 R/Femur Moment  
 L/Up/Tibia Load  
 L/Up/Tibia Moment  
 R/Up/Tibia Load  
 R/Up/Tibia Moment  
 L/Low/Tibia Load  
 L/Low/Tibia Moment  
 R/Low/Tibia Load  
 R/Low/Tibia Moment

Fx  Fy  Fz  
 Mx  My  Mz  
 Fx  Fy  Fz  
 Mx  My  Mz  
 Fx  Fy  Fz  
 Mx  My  Mz  
 Fx  Fy  Fz  
 Mx  My  Mz  
 Mx  My  Mz  
 Fx  Fy  Fz  
 Mx  My  Mz  
 Fx  Fy  Fz  
 Mx  My  Mz  
 Fx  Fy  Fz  
 Mx  My  Mz

**POTENTIOMETERS:**

Chest Deflection  
 Left Knee Slider  Ball Bearing  
 Right Knee Slider  Ball Bearing

Diap  
 Diap  
 Diap

**OTHER INTERNAL DUMMY INSTRUMENTATION:**

L/R Femur Accels (not on 5% dummies)  
 L/R Ankle soft bumper to foot stem

Long

**Dummy Instrumentation - External**

**CONTACT SWITCHES:**

L/Knee Contact  
 R/Knee Contact  
 Header

**STRING POTS:**

P/Style  
 L/Knee  
 R/Knee

# List of Test Contacts

TA#: TC1890

	Last name	Phone	Pager	Profs
Requestor	John Fazio	32-31182	JFAZ	JFAZIO1
Approving supervisor	K. Arthur	39-05168	KART	KARTHURS
Build coordinator	Allen Preston	24-85342	APRE	APRESTO1
Test engineer				
Senior Engineer	Abe Philip	59-41134	APHI	APHILIP
Other	Mary Wroten	33-71739	MWRO	MWROTEN1

	Last name	Phone	Pager	Profs
Seats				
Instrument panel				
Restraints				
Air bag (driver)				
Air bag (passenger)				
Steering column				





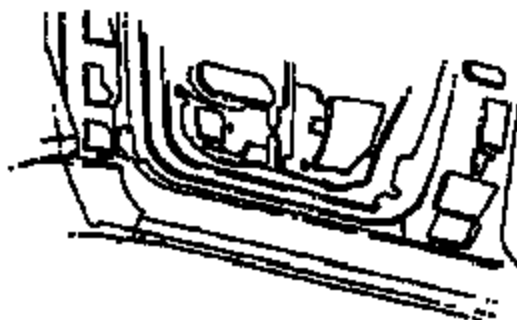
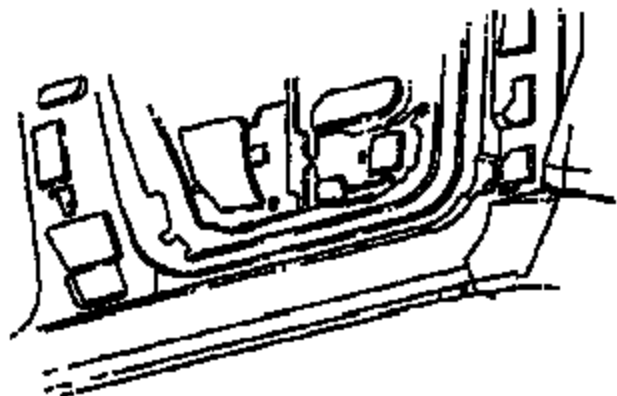
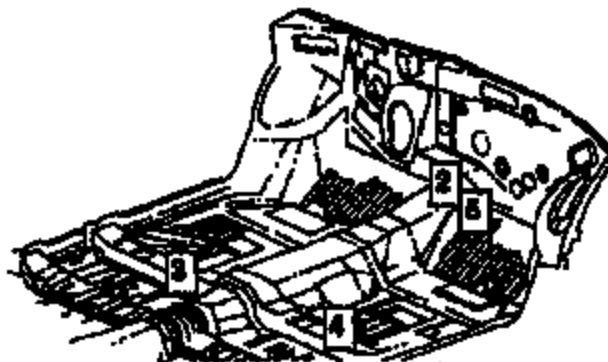
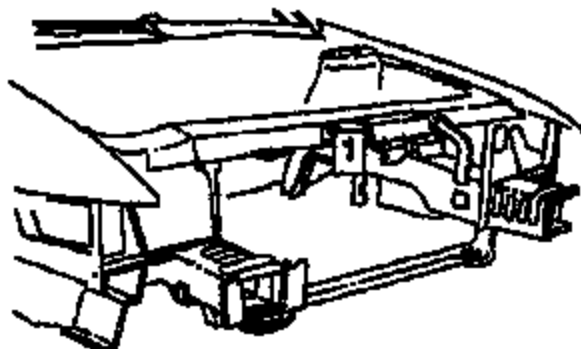


Program: D186  
 Vehicle ID: 1MEFM69S4YG600019  
 Build level: Production  
 Part Mode: 25 Barrier

### SENSOR MAP

TC1830

Engineer: Abe Philip  
 Phone #: 594-1134  
 Date: 10/26/00  
 Time: 1:59pm



Sensor Channels only

Location Name	Type	Output	Nominal (+/-)	Manufacturer	Serial #
✓ LIC/FRONT RAD SUPPORT_SM	accel	LONG			Near Front Crash Sensor
✓ CA_TNL@DASH_RCM	accel	TRAX			On RCM
✓ CA_TNL@DASH_V181	Visteon RCM1	Sensor	2.5 +/- 0.5	2.0/3.0	SV005-1
<del>CA_TNL@DASH_V182</del>	<del>Visteon RCM2</del>	<del>Sensor</del>	<del>2.5 +/- 0.5</del>	<del>2.0/3.0</del>	<del>SV005-2</del>
✓ CA_TNL@DASH_V185	Visteon RCM3	Sensor	N/A - Not Required		-SV005-3
✓ CA_TNL@DASH_V184	Visteon RCM4	Sensor	2.5 +/- 0.5	2.0/3.0	SV005-4
✓ CA_TNL@DASH_V187	Visteon RCM5	Sensor	N/A - Not Required		SV005-5
✓ CA_TNL@DASH_V188	Visteon RCM6	Sensor	N/A - Not Required		SV005-6
✓ CA_TNL@DASH_V189	Visteon RCM7	Sensor	2.5 +/- 0.5	2.0/3.0	SV005-7
<del>CA_TNL@DASH_V190</del>	<del>Visteon RCM8</del>	<del>Sensor</del>	<del>N/A - Not Required</del>		<del>SV005-8</del>
✓ LF FLOOR PAN @ #2 XMBR CTR_SM	accel	TRAX			Near Side Crash Sensor
✓ RF FLOOR PAN @ #2 XMBR CTR_SM	accel	TRAX			Near Side Crash Sensor
✓ CA_TNL@DASH_SM	accel	TRAX			Near RCM

*Red of 2000  
11/6/00*

Contacts: Ford: Abe Philip 594-1134  
 Visteon: Andy Kiddle 785-7601

NOTE: Serial numbers will be updated as parts arrive.

11/3/00

**VEHICLE SAFETY AND CAE TECHNOLOGY PACKAGE LABORATORY IN VEHICLE QUALITY REPORT**

												2900
												2951
	248		3024			448.4						463.3
	252		3077			454						470.8
		2736			2731			-5				
		850			844.3			-5.7				
		2725			343			STEERING COLUMN ANGLE:				28.8°
307W152	LH FWR BUNKT AIRBAG	2985	2961	-24.0	645	649	4.0	22.5°	24.2°	1.7°	27.8°	27.8°
307W152	RH FWR BUNKT AIRBAG	2985	2960	-25.5	645	652.7	7.7	22.5°	24.2°	1.7°	27.8°	27.8°

LH ACTUAL H-POINT W.R.T. TARGET "X"  
 LH ACTUAL H-POINT W.R.T. TARGET "Z"  
 RH ACTUAL H-POINT W.R.T. TARGET "X"  
 RH ACTUAL H-POINT W.R.T. TARGET "Z"

236	MM
386	MM
234.5	MM
389.7	MM

9.3	INCHES
12.8	INCHES
9.2	INCHES
12.2	INCHES

**TO TARGET AT MIDVERT**  
 LH 269.5mm/10.61inch  
 RH 264.35mm/10.40inch  
 from FULL FWD

CRIS 0012060

DUMMY POSITIONING MEASUREMENTS

Test Order No. TC1830  
 Crash No. 120100  
 Target/Bullet BULLET  
 Dummy Type 5-45 / 5-47  
 Foot Rest (Yes/No)

D184

361 842

MEASUREMENT DESCRIPTIONS VRT FRONT ROCKER TARGET		DRIVER		PASSENGER	
		RANGE	Actual	RANGE	Actual
Head (Inches)	Long		9.4		9.1
	Vert		34.9		35.4
	Lat		15.3		15.0
Shoulder (Inches)	Long	/	/	/	/
	Vert	/	/	/	/
	Lat	/	/	/	/
H-Point (Inches)	Long		3.4		2.7
	Vert		13.1		13.2
	Lat		11.6		11.9
Outboard Knee Bolt (Inches)	Long		-9.7		-10.2
	Vert		16.3		16.5
	Lat		12.7		13.4

MEASUREMENT DESCRIPTIONS		DRIVER		PASSENGER	
		RANGE	Actual	RANGE	Actual
Leg to Instrument Panel - Left	(Inches)		0.3		0.4
Leg to Instrument Panel - Right	(Inches)		0.4		0.6
Rockar Target to Ground - Front	(Inches)		7.0		7.4
Rockar Target to Ground - Rear	(Inches)		7.8		7.8
Nose to Steering Wheel	(Inches)		10.2		
Nose to Instrument Panel	(Inches)				15.8
Torso to Instrument Panel	(Inches)				12.8
Torso to Steering Wheel	(Inches)		3.1		
Top of Legs to Steering Wheel	(Inches)		3.7		
Knee Spread	(Inches)		6.7	6.7	6.3
Bumper Target to Ground	(Inches)				
Head Angle	(degrees)		0.1		0.1
Pelvic Angle	(degrees)		20.5		19.8
Neck Bracket Angle	(degrees)		0.0		0.0
Rockar Angle	(degrees)		0.4		0.5
Seat Back Angle	(degrees)				

to PASS SEAT  
 10.3  
 DRIVE SEAT  
 10.5

HEAD ANGLE  
 L: 87.2  
 R: 88.3  
 DRIVE  
 INGH  
 ANGLE  
 L: 80.9  
 R: 57.1

HEAD SEAT ANGLE  
 PELVIS TO SEAT

17.1  
 1.1  
 15.6  
 1.2

## Dummy Position Data for TA TC1830 Run 12060

### Absolute Dummy Measurements for Run 12060

Position	Type	Measurement Description	Axis	Measurement Value	Units
LEFT / FRONT	5H3	Leg To IP Left		3.3	INCHES
LEFT / FRONT	5H3	Leg To IP Right		3.4	INCHES
LEFT / FRONT	5H3	Rocker Targets To Ground Front		7.7	INCHES
LEFT / FRONT	5H3	Rocker Targets To Ground Rear		7.8	INCHES
LEFT / FRONT	5H3	Nose To Steering Wheel		10.2	INCHES
LEFT / FRONT	5H3	Nose To Instrument Panel			INCHES
LEFT / FRONT	5H3	Instrument Panel To Torso			INCHES
LEFT / FRONT	5H3	Steering Wheel To Torso		3.1	INCHES
LEFT / FRONT	5H3	Steering Wheel Top Legs		3.7	INCHES
LEFT / FRONT	5H3	Knee Spread		3.7	INCHES
LEFT / FRONT	5H3	Seat Back Angle			INCHES
LEFT / FRONT	5H3	Pelvic Angle		20.5	INCHES
LEFT / FRONT	5H3	Head Angle		3.1	INCHES
LEFT / FRONT	5H3	Rocker Angle		3.4	INCHES
LEFT / FRONT	5H3	Neck Bracket Angle		0	INCHES
LEFT / FRONT	5H3	Bumper Target To Ground			INCHES
RIGHT / FRONT	5H3	Leg To IP Left		3.4	INCHES
RIGHT / FRONT	5H3	Leg To IP Right		3.8	INCHES
RIGHT / FRONT	5H3	Rocker Targets To Ground Front		7.4	INCHES
RIGHT / FRONT	5H3	Rocker Targets To Ground Rear		7.8	INCHES
RIGHT / FRONT	5H3	Nose To Steering Wheel			INCHES
RIGHT / FRONT	5H3	Nose To Instrument Panel		15.8	INCHES
RIGHT / FRONT	5H3	Instrument Panel To Torso		12.8	INCHES
RIGHT / FRONT	5H3	Steering Wheel To Torso			INCHES
RIGHT / FRONT	5H3	Steering Wheel Top Legs			INCHES
RIGHT / FRONT	5H3	Knee Spread		3.3	INCHES
RIGHT / FRONT	5H3	Seat Back Angle			INCHES
RIGHT / FRONT	5H3	Pelvic Angle		19.8	INCHES
RIGHT / FRONT	5H3	Head Angle		3.1	INCHES
RIGHT / FRONT	5H3	Rocker Angle		3.5	INCHES
RIGHT / FRONT	5H3	Neck Bracket Angle			INCHES

RIGHT / FRONT 5H3	Neck Bracket Angle	INCHES
RIGHT / FRONT 5H3	Bumper Target To Ground	INCHES

## Relative Dummy Measurements for Run 12060

Position	Type	Measurement Description	Axis	Measurement Value	Units
LEFT / FRONT	5H3	HEAD TO PELVIS	LONG	34.4	INCHES
LEFT / FRONT	5H3	HEAD TO PELVIS	VERT	34.9	INCHES
LEFT / FRONT	5H3	HEAD TO PELVIS	LAT	15.3	INCHES
LEFT / FRONT	5H3	KNEE BOLT TO PELVIS	LONG	19.7	INCHES
LEFT / FRONT	5H3	KNEE BOLT TO PELVIS	VERT	16.3	INCHES
LEFT / FRONT	5H3	KNEE BOLT TO PELVIS	LAT	12.7	INCHES
LEFT / FRONT	5H3	H-POINT TO PELVIS	LONG	8.4	INCHES
LEFT / FRONT	5H3	H-POINT TO PELVIS	VERT	13.1	INCHES
LEFT / FRONT	5H3	H-POINT TO PELVIS	LAT	11.8	INCHES
LEFT / FRONT	5H3	SHOULDER TO PELVIS	LONG		INCHES
LEFT / FRONT	5H3	SHOULDER TO PELVIS	VERT		INCHES
LEFT / FRONT	5H3	SHOULDER TO PELVIS	LAT		INCHES
RIGHT / FRONT	5H3	HEAD TO PELVIS	LONG	35.1	INCHES
RIGHT / FRONT	5H3	HEAD TO PELVIS	VERT	35.4	INCHES
RIGHT / FRONT	5H3	HEAD TO PELVIS	LAT	16	INCHES
RIGHT / FRONT	5H3	KNEE BOLT TO PELVIS	LONG	10.2	INCHES
RIGHT / FRONT	5H3	KNEE BOLT TO PELVIS	VERT	16.5	INCHES
RIGHT / FRONT	5H3	KNEE BOLT TO PELVIS	LAT	13.4	INCHES
RIGHT / FRONT	5H3	H-POINT TO PELVIS	LONG	2.7	INCHES
RIGHT / FRONT	5H3	H-POINT TO PELVIS	VERT	13.2	INCHES
RIGHT / FRONT	5H3	H-POINT TO PELVIS	LAT	11.9	INCHES
RIGHT / FRONT	5H3	SHOULDER TO PELVIS	LONG		INCHES
RIGHT / FRONT	5H3	SHOULDER TO PELVIS	VERT		INCHES
RIGHT / FRONT	5H3	SHOULDER TO PELVIS	LAT		INCHES

Maintained by Jeff Brandimore

