



BRIDGE / MEMBER DATA

Structure I. D. HAM500

Material of Construction SS  
 Year of Construction 1959  
 Roadway Width 32.000  
 Center to Center Truss 38.833  
 Number of Spans 1  
 Live Load Distribution Factor 2.5400

Comments:

Truss I. D. 1 Truss Type: THROUGH

Span Length: Span 1  
 250.000

Number of Panels: 10 Symmetry:

Panel No.	Panel Code	Panel Length	Sub-Divided Panel Length	Vertical Height	Sub-Divided Vertical
1	7	25.000	0.000	28.000	0.000
2	2	25.000	0.000	34.670	0.000
3	2	25.000	0.000	38.670	0.000
4	2	25.000	0.000	40.000	0.000
5	4	25.000	0.000	40.000	0.000
6	3	25.000	0.000	40.000	0.000
7	1	25.000	0.000	38.670	0.000
8	1	25.000	0.000	34.670	0.000
9	1	25.000	0.000	28.000	0.000
10	5	25.000	0.000	0.000	0.000

Superimposed Dead Load:

Uniform Dead Load (kips/ft)	
Loaded Chord	Unloaded Chord
0.441	0.000

Superimposed Dead Load:

Loaded Chord		Unloaded Chord	
Dist.	Load	Dist.	Load
0.000	27.810	0.000	0.000
25.000	58.720	0.000	0.000
50.000	51.410	0.000	0.000

75.000	53.130	0.000	0.000
100.000	52.680	0.000	0.000
125.000	52.830	0.000	0.000
150.000	52.680	0.000	0.000
175.000	53.130	0.000	0.000
200.000	51.410	0.000	0.000
225.000	58.720	0.000	0.000

Truss Members Selected:

- L 0L 1
- L 0U 1
- U 1L 1
- U 1U 2
- L 1L 2
- U 1L 2
- U 2L 2
- U 2U 3
- L 2L 3
- U 2L 3
- U 3L 3
- U 3U 4
- L 3L 4
- U 3L 4
- U 4L 4
- L 4L 5
- U 4U 5
- U 4L 5
- L 4U 5
- U 5L 5
- L 5L 6
- U 5U 6
- L 5U 6
- U 5L 6
- U 6L 6
- L 6L 7
- U 6U 7
- L 6U 7
- U 7L 7
- L 7L 8
- U 7U 8
- L 7U 8
- U 8L 8
- L 8L 9
- U 8U 9
- L 8U 9
- U 9L 9
- L 9L10
- U 9L10

NOTE: All distances are shown in decimal feet, moments are shown in foot-kips, and shears are shown in kips. Section and section properties are shown as: in., in.\*\*2, in.\*\*3, and in.\*\*4. Axial loads are shown in kips.

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 0L 1

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	29.24	789.74	978.64	9.00	5.20	5.79

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
28.75	974.29	816.11	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	L 0L 1		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
290.2	0.0				

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	437.9	350.7	263.8	524.9
OPER	729.9	584.5	439.7	874.8

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	79.82 R	70.43		53.00	113.35	100.01		25.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	79.82 R	70.43		53.00	113.35	100.01		25.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	34.18 R	30.16		35.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	51.99 R	45.87		39.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	60.48 R	53.37		43.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	82.57 R	72.85		76.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.33	HS 46.55	83.8
HS20	3.88	HS 77.58	139.6
2F1	12.86	0.00	192.9
3F1	8.46	0.00	194.5
4F1	7.27	0.00	196.3
5C1	5.32	0.00	213.0

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 0U 1

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14238.	17756.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
37.537	37.537	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	55.60	4745.06	2918.48	22.96	9.24	7.25

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
55.60	4745.06	2918.48	22.96

Truss influence line - loaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.207	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.207	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension		Compression		
0.0		435.8		

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	846.8	658.4	1108.3	396.9
OPER	1411.4	1097.3	1847.2	661.5

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-119.85 R	-105.75		53.00	-184.08	-162.42		25.00
OPER	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-119.85 R	-105.75		53.00	-184.08	-162.42		25.00
OPER	2F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-51.33 R	-45.29		35.00	0.00	0.00		0.00
OPER	3F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-78.06 R	-68.88		39.00	0.00	0.00		0.00
OPER	4F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-90.81 R	-80.13		43.00	0.00	0.00		0.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-123.97 R	-109.39		76.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.16	HS 43.13	77.6
HS20	3.59	HS 71.88	129.4
2F1	12.89	0.00	193.3
3F1	8.48	0.00	194.9
4F1	7.28	0.00	196.7
5C1	5.34	0.00	213.5

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 1L 1

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	5727.	7142.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
28.000	28.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
11.94	10.55	119.82	38.68	-1.38	3.37	1.91

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
10.07	219.10	25.98	-0.79

Truss influence line - loaded chord:

X ordinates:	0.000	0.000	25.000	50.000	250.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	250.000	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	U 1L 1		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
69.7	0.0				

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	153.4	50.3	111.6	92.1
OPER	255.7	83.8	185.9	153.5

## Live Load Effect

Impact Factors: ten - .286 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	80.99 R	62.99		39.00	68.58	53.34		25.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	80.99 R	62.99		39.00	68.58	53.34		25.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	42.45 R	33.02		35.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	62.83 R	48.87		35.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	69.89 R	54.36		39.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	61.26 R	47.65		37.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.38	HS 27.55	49.6
HS20	2.30	HS 45.92	82.6
2F1	4.38	0.00	65.7
3F1	2.96	0.00	68.1
4F1	2.66	0.00	71.8
5C1	3.04	0.00	121.4

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 1U 2

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14958.	18653.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.874	25.874	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.25	45.20	4124.31	2460.90	24.81	9.55	7.38

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
45.20	4124.31	2460.90	24.81

Truss influence line - loaded chord:

X ordinates:	0.000	50.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.194	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	50.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.194	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension	Compression			
0.0	427.7			

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	688.4	562.3	945.0	305.7
OPER	1147.4	937.2	1575.1	509.5

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-117.97 R	-104.09		78.00	-168.43	-148.62		50.00
OPER	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-117.97 R	-104.09		78.00	-168.43	-148.62		50.00
OPER	2F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-50.70 R	-44.74		60.00	0.00	0.00		0.00
OPER	3F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-77.03 R	-67.97		64.00	0.00	0.00		0.00
OPER	4F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-89.51 R	-78.98		68.00	0.00	0.00		0.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-121.15 L	-106.90		38.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.82	HS 36.30	65.3
HS20	3.03	HS 60.50	108.9
2F1	10.05	0.00	150.7
3F1	6.61	0.00	152.1
4F1	5.69	0.00	153.7
5C1	4.20	0.00	168.2

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 1L 2

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	29.24	789.74	978.64	9.00	5.20	5.79

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
28.75	974.29	816.11	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	25.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	L 1L 2		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
290.2	0.0				

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	437.9	350.7	263.8	524.9
OPER	729.9	584.5	439.7	874.8

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	79.82 R	70.43		53.00	113.35	100.01		25.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	79.82 R	70.43		53.00	113.35	100.01		25.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	34.18 R	30.16		35.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	51.99 R	45.87		39.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	60.48 R	53.37		43.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	82.57 R	72.85		76.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.33	HS 46.55	83.8
HS20	3.88	HS 77.58	139.6
2F1	12.86	0.00	192.9
3F1	8.46	0.00	194.5
4F1	7.27	0.00	196.3
5C1	5.32	0.00	213.0

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 1L 2

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	7915.	9870.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
37.537	37.537	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.12	19.10	533.00	174.00	0.00	5.28	3.02

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
19.10	708.48	135.48	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	25.000	50.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.340	0.660	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	25.000	50.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.340	0.660	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	U 1L 2		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
184.6	0.0				

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	290.9	125.7	180.1	236.5
OPER	484.8	209.6	300.2	394.2

## Live Load Effect

Impact Factors: ten - .146 comp - .300

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	65.94 R	57.52		78.00	91.53	79.84		50.00
		-25.90 L	-19.92		-3.00	-20.64	-15.87		25.00
OPER	HS20	65.94 R	57.52		78.00	91.53	79.84		50.00
		-25.90 L	-19.92		-3.00	-20.64	-15.87		25.00
OPER	2F1	28.34 R	24.72		60.00	0.00	0.00		0.00
		-14.61 L	-11.24		15.00	0.00	0.00		0.00
OPER	3F1	43.06 R	37.56		64.00	0.00	0.00		0.00
		-20.55 L	-15.80		11.00	0.00	0.00		0.00
OPER	4F1	50.03 R	43.64		68.00	0.00	0.00		0.00
		-21.71 L	-16.70		7.00	0.00	0.00		0.00
OPER	5C1	67.54 R	58.92		101.00	0.00	0.00		0.00
		-17.58 L	-13.52		-26.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.97	HS 39.36	70.8
HS20	3.28	HS 65.60	118.1
2F1	10.59	0.00	158.9
3F1	6.97	0.00	160.4
4F1	6.00	0.00	162.0
5C1	4.45	0.00	177.8

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 2L 2

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	9016.	11243.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
34.670	34.670	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.12	18.79	488.78	170.54	-0.20	5.10	3.01

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
18.79	669.82	132.02	0.58

Truss influence line - loaded chord:

X ordinates:	0.000	50.000	75.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.508	-0.431	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	25.000	50.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.254	-0.492	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	U 2L 2		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
0.0	75.3				

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	286.2	140.9	331.3	95.7
OPER	476.9	234.8	552.2	159.5

## Live Load Effect

Impact Factors: ten - .265 comp - .161

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	47.78 L	37.77		22.00	37.80	29.88		50.00
		-43.26 R	-37.28		103.00	-54.38	-46.86		75.00
OPER	HS20	47.78 L	37.77		22.00	37.80	29.88		50.00
		-43.26 R	-37.28		103.00	-54.38	-46.86		75.00
OPER	2F1	22.85 L	18.06		40.00	0.00	0.00		0.00
		-18.68 R	-16.10		85.00	0.00	0.00		0.00
OPER	3F1	33.68 L	26.62		36.00	0.00	0.00		0.00
		-28.34 R	-24.42		89.00	0.00	0.00		0.00
OPER	4F1	37.80 L	29.87		32.00	0.00	0.00		0.00
		-32.88 R	-28.33		93.00	0.00	0.00		0.00
OPER	5C1	34.95 R	27.63		62.00	0.00	0.00		0.00
		-43.75 R	-37.70		126.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.76	HS 35.20	63.4
HS20	2.93	HS 58.66	105.6
2F1	8.54	0.00	128.1
3F1	5.63	0.00	129.4
4F1	4.85	0.00	131.0
5C1	3.65	0.00	145.8

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 2U 3

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14972.	18671.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.318	25.318	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	52.00	4491.89	2777.39	22.52	9.29	7.31

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
52.00	4491.89	2777.39	22.52

Truss influence line - loaded chord:

X ordinates:	0.000	75.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.375	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	75.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.375	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension		Compression		
0.0		491.8		

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	792.0	647.5	1087.1	352.4
OPER	1320.0	1079.2	1811.8	587.4

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-134.89 R	-119.02		103.00	-193.94	-171.12		75.00
OPER	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-134.89 R	-119.02		103.00	-193.94	-171.12		75.00
OPER	2F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-58.24 R	-51.39		85.00	0.00	0.00		0.00
OPER	3F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-88.36 R	-77.97		89.00	0.00	0.00		0.00
OPER	4F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-102.85 R	-90.75		89.00	0.00	0.00		0.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-139.52 L	-123.11		63.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.82	HS 36.34	65.4
HS20	3.03	HS 60.57	109.0
2F1	10.09	0.00	151.3
3F1	6.65	0.00	152.9
4F1	5.71	0.00	154.2
5C1	4.21	0.00	168.4

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 2L 3

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	40.50	1093.50	1284.58	9.00	5.20	5.63

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
39.83	1349.08	1071.91	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	50.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.154	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	50.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.154	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension	Compression			
413.2	0.0			

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	606.6	485.7	358.6	733.7
OPER	1010.9	809.6	597.7	1222.8

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane Live Load w/imp.	Load Force w/o imp.	Loc. of Conc. Load
INV.	HS20	113.98 R	100.57		78.00	162.74	143.59	50.00
		0.00 R	0.00		0.00	0.00	0.00	0.00
OPER	HS20	113.98 R	100.57		78.00	162.74	143.59	50.00
		0.00 R	0.00		0.00	0.00	0.00	0.00
OPER	2F1	48.99 R	43.22		60.00	0.00	0.00	0.00
		0.00 R	0.00		0.00	0.00	0.00	0.00
OPER	3F1	74.43 R	65.67		64.00	0.00	0.00	0.00
		0.00 R	0.00		0.00	0.00	0.00	0.00
OPER	4F1	86.48 R	76.31		68.00	0.00	0.00	0.00
		0.00 R	0.00		0.00	0.00	0.00	0.00
OPER	5C1	117.06 L	103.29		38.00	0.00	0.00	0.00
		0.00 R	0.00		0.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.20	HS 44.07	79.3
HS20	3.67	HS 73.46	132.2
2F1	12.20	0.00	183.0
3F1	8.03	0.00	184.7
4F1	6.91	0.00	186.6
5C1	5.11	0.00	204.3

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 2L 3

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	4117.	5134.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
42.741	42.741	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.06	15.60	425.00	95.80	0.00	5.22	2.48

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
15.60	587.24	67.82	0.89

Truss influence line - loaded chord:

X ordinates:	0.000	50.000	75.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.425	0.595	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	50.000	75.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.425	0.595	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

RATING REPORT

Rating Types and Vehicles

Structure I. D. HAM500

			INV.	OPER	POST	SPEC
			HS20	HS20		
Truss I. D.		1		2F1		
Truss Member I. D.	U 2L	3		3F1		
				4F1		
				5C1		
Axial Dead Load						
Tension      Compression						
	123.9			0.0		

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	237.6	53.4	163.3	127.7
OPER	396.0	89.0	272.1	212.9

Live Load Effect

Impact Factors: ten - .159 comp - .270

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	59.71 R	51.52		103.00	75.92	65.51		75.00
		-40.14 L	-31.62		22.00	-31.07	-24.47		50.00
OPER	HS20	59.71 R	51.52		103.00	75.92	65.51		75.00
		-40.14 L	-31.62		22.00	-31.07	-24.47		50.00
OPER	2F1	25.78 R	22.25		85.00	0.00	0.00		0.00
		-19.19 L	-15.12		40.00	0.00	0.00		0.00
OPER	3F1	39.12 R	33.75		89.00	0.00	0.00		0.00
		-28.30 L	-22.29		36.00	0.00	0.00		0.00
OPER	4F1	45.38 R	39.16		93.00	0.00	0.00		0.00
		-31.75 L	-25.01		32.00	0.00	0.00		0.00
OPER	5C1	60.38 R	52.10		126.00	0.00	0.00		0.00
		-28.43 L	-22.39		-1.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.15	HS 43.01	77.4
HS20	3.58	HS 71.68	129.0
2F1	10.56	0.00	158.3
3F1	6.96	0.00	160.0
4F1	6.00	0.00	161.9
5C1	4.51	0.00	180.3

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 3L 3

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	10618.	13241.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
38.670	19.335	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
11.94	11.80	310.00	44.10	0.00	5.13	1.93

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
11.51	415.42	31.40	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	75.000	100.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.517	-0.414	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	50.000	75.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.345	-0.483	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

RATING REPORT

Rating Types and Vehicles

Structure I. D. HAM500

			INV.	OPER	POST	SPEC
			HS20	HS20		
Truss I. D.		1		2F1		
Truss Member I. D.	U 3L 3			3F1		
				4F1		
				5C1		
Axial Dead Load						
Tension	Compression					
0.0	36.3					

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	175.3	104.2	197.1	82.4
OPER	292.2	173.7	328.5	137.4

Live Load Effect

Impact Factors: ten - .234 comp - .175

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	51.09 L	41.41		47.00	44.12	35.76		75.00
		-41.69 R	-35.48		128.00	-47.88	-40.76		100.00
OPER	HS20	51.09 L	41.41		47.00	44.12	35.76		75.00
		-41.69 R	-35.48		128.00	-47.88	-40.76		100.00
OPER	2F1	23.23 L	18.83		65.00	0.00	0.00		0.00
		-18.11 R	-15.42		110.00	0.00	0.00		0.00
OPER	3F1	34.73 L	28.15		61.00	0.00	0.00		0.00
		-27.43 R	-23.35		114.00	0.00	0.00		0.00
OPER	4F1	39.61 L	32.11		57.00	0.00	0.00		0.00
		-31.76 R	-27.03		118.00	0.00	0.00		0.00
OPER	5C1	43.89 L	35.58		24.00	0.00	0.00		0.00
		-41.41 R	-35.25		151.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.72	HS 34.42	62.0
HS20	2.87	HS 57.37	103.3
2F1	7.59	0.00	113.8
3F1	5.01	0.00	115.2
4F1	4.32	0.00	116.8
5C1	3.32	0.00	132.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 3U 4

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14975.	18675.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.035	25.035	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	55.60	4745.06	2918.48	22.96	9.24	7.25

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
55.60	4745.06	2918.48	22.96

Truss influence line - loaded chord:

X ordinates:	0.000	100.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.502	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	100.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.502	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

RATING REPORT

Rating Types and Vehicles

Structure I. D. HAM500

			INV.	OPER	POST	SPEC
			HS20	HS20		
Truss I. D.		1		2F1		
Truss Member I. D.	U 3U	4		3F1		
				4F1		
				5C1		
Axial Dead Load						
Tension      Compression						
	0.0			536.9		

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	846.8	692.5	1169.0	370.3
OPER	1411.4	1154.2	1948.3	617.2

Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-146.79 L	-129.52		86.00	-211.88	-186.95		100.00
OPER	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-146.79 L	-129.52		86.00	-211.88	-186.95		100.00
OPER	2F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-63.42 R	-55.96		110.00	0.00	0.00		0.00
OPER	3F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-96.25 R	-84.93		110.00	0.00	0.00		0.00
OPER	4F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-112.31 R	-99.10		114.00	0.00	0.00		0.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-151.17 L	-133.39		84.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.75	HS 34.96	62.9
HS20	2.91	HS 58.26	104.9
2F1	9.73	0.00	146.0
3F1	6.41	0.00	147.5
4F1	5.50	0.00	148.4
5C1	4.08	0.00	163.3

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 3L 4

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	49.50	1336.50	1505.17	9.00	5.20	5.51

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
48.67	1648.87	1256.91	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	75.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.358	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	75.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.358	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension	Compression			
485.7	0.0			

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	741.4	593.7	450.0	885.1
OPER	1235.6	989.5	749.9	1475.2

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	133.19 R	117.52		103.00	191.50	168.97		75.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	133.19 R	117.52		103.00	191.50	168.97		75.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	57.51 R	50.74		85.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	87.25 R	76.99		89.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	101.56 R	89.61		89.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	137.77 L	121.56		63.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.35	HS 46.99	84.6
HS20	3.92	HS 78.32	141.0
2F1	13.04	0.00	195.6
3F1	8.60	0.00	197.7
4F1	7.38	0.00	199.4
5C1	5.44	0.00	217.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 3L 4

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	8643.	10779.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
46.048	23.024	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.06	13.20	350.00	50.00	0.00	5.15	1.95

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
12.88	470.25	35.82	0.78

Truss influence line - loaded chord:

X ordinates:	0.000	75.000	100.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.428	0.619	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	75.000	100.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.428	0.619	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	U 3L 4		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
93.1	0.0				

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	196.2	94.9	140.3	150.7
OPER	327.0	158.1	233.9	251.2

## Live Load Effect

Impact Factors: ten - .173 comp - .238

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	62.28 R	53.12		128.00	72.62	61.94		100.00
		-42.47 L	-34.31		47.00	-35.89	-28.99		75.00
OPER	HS20	62.28 R	53.12		128.00	72.62	61.94		100.00
		-42.47 L	-34.31		47.00	-35.89	-28.99		75.00
OPER	2F1	27.06 R	23.08		110.00	0.00	0.00		0.00
		-19.31 L	-15.60		65.00	0.00	0.00		0.00
OPER	3F1	40.98 R	34.95		114.00	0.00	0.00		0.00
		-28.87 L	-23.32		61.00	0.00	0.00		0.00
OPER	4F1	47.45 R	40.47		118.00	0.00	0.00		0.00
		-32.93 L	-26.60		57.00	0.00	0.00		0.00
OPER	5C1	61.88 R	52.77		151.00	0.00	0.00		0.00
		-36.48 L	-29.47		24.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.93	HS 38.65	69.6
HS20	3.22	HS 64.42	115.9
2F1	8.64	0.00	129.7
3F1	5.71	0.00	131.3
4F1	4.93	0.00	133.1
5C1	3.78	0.00	151.2

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 4L 4

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	10272.	12809.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
40.000	20.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
11.94	11.80	310.00	44.10	0.00	5.13	1.93

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
11.51	415.42	31.40	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.480	-0.433	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	75.000	100.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.360	-0.520	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	U 4L 4		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
0.0	14.4				

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	175.3	100.8	184.0	92.1
OPER	292.2	168.0	306.6	153.6

## Live Load Effect

Impact Factors: ten - .210 comp - .191

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	48.13 L	39.78		72.00	45.86	37.90		100.00
		-43.68 R	-36.68		153.00	-45.76	-38.43		125.00
OPER	HS20	48.13 L	39.78		72.00	45.86	37.90		100.00
		-43.68 R	-36.68		153.00	-45.76	-38.43		125.00
OPER	2F1	21.38 L	17.67		90.00	0.00	0.00		0.00
		-19.15 R	-16.08		135.00	0.00	0.00		0.00
OPER	3F1	32.18 L	26.59		86.00	0.00	0.00		0.00
		-28.92 R	-24.29		139.00	0.00	0.00		0.00
OPER	4F1	36.98 L	30.56		82.00	0.00	0.00		0.00
		-33.39 R	-28.04		143.00	0.00	0.00		0.00
OPER	5C1	44.69 L	36.94		49.00	0.00	0.00		0.00
		-42.29 R	-35.51		176.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.01	HS 40.27	72.5
HS20	3.36	HS 67.12	120.8
2F1	8.02	0.00	120.3
3F1	5.31	0.00	122.1
4F1	4.60	0.00	124.2
5C1	3.63	0.00	145.3

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 4L 5

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	54.00	1458.00	1604.36	9.00	5.20	5.45

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
53.10	1798.77	1340.34	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	100.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	100.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension		Compression		
536.2		0.0		

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	808.8	647.7	487.0	969.4
OPER	1347.9	1079.4	811.7	1615.6

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	146.58 L	129.34		86.00	211.58	186.69		100.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	146.58 L	129.34		86.00	211.58	186.69		100.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	63.33 R	55.88		110.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	96.12 R	84.81		110.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	112.15 R	98.96		114.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	150.96 L	133.20		84.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.30	HS 46.04	82.9
HS20	3.84	HS 76.73	138.1
2F1	12.82	0.00	192.3
3F1	8.44	0.00	194.2
4F1	7.24	0.00	195.4
5C1	5.38	0.00	215.1

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 4U 5

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14977.	18677.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	55.60	4745.06	2918.48	22.96	9.24	7.25

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
55.60	4745.06	2918.48	22.96

Truss influence line - loaded chord:

X ordinates:	0.000	125.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.562	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	125.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.562	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension		Compression		
0.0		558.4		

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	846.8	692.6	1181.9	357.5
OPER	1411.4	1154.3	1969.8	595.8

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-151.85 R	-133.99		139.00	-220.40	-194.47		125.00
OPER	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-151.85 R	-133.99		139.00	-220.40	-194.47		125.00
OPER	2F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-65.67 R	-57.94		135.00	0.00	0.00		0.00
OPER	3F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-100.07 R	-88.30		135.00	0.00	0.00		0.00
OPER	4F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-116.41 R	-102.71		139.00	0.00	0.00		0.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-155.05 L	-136.81		109.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.62	HS 32.44	58.4
HS20	2.70	HS 54.07	97.3
2F1	9.07	0.00	136.1
3F1	5.95	0.00	136.9
4F1	5.12	0.00	138.2
5C1	3.84	0.00	153.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 4L 5

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	5276.	6579.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
47.170	23.585	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.71	10.64	302.68	25.49	6.35	5.33	1.55

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
10.07	276.97	12.17	7.36

Truss influence line - loaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.472	0.590	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.472	0.590	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension	Compression			
42.0	0.0			

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	153.4	0.0	128.2	0.0
OPER	255.7	0.0	213.7	0.0

## Live Load Effect

Impact Factors: ten - .189 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	59.34 R	49.89		153.00	62.74	52.75		125.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	59.34 R	49.89		153.00	62.74	52.75		125.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	26.01 R	21.87		135.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	39.29 R	33.03		139.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	45.36 R	38.14		143.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	57.45 R	48.30		176.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.04	HS 40.86	73.6
HS20	3.40	HS 68.11	122.6
2F1	8.22	0.00	123.2
3F1	5.44	0.00	125.1
4F1	4.71	0.00	127.2
5C1	3.72	0.00	148.8

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 4U 5

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	5385.	6716.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
47.170	23.585	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.71	10.39	293.20	25.41	6.21	5.31	1.56

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
9.78	269.23	12.09	7.21

Truss influence line - loaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.472	-0.590	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.472	-0.590	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension	Compression			
0.0	0.0			

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	149.0	0.0	149.0	0.0
OPER	248.4	0.0	248.4	0.0

## Live Load Effect

Impact Factors: ten - .212 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	47.39 L	39.11		72.00	44.68	36.88		100.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	47.39 L	39.11		72.00	44.68	36.88		100.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	21.05 L	17.37		90.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	31.68 L	26.14		86.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	36.41 L	30.05		82.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	44.01 L	36.31		49.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	3.14	HS 62.89	113.2
HS20	5.24	HS104.82	188.7
2F1	11.80	0.00	177.0
3F1	7.84	0.00	180.3
4F1	6.82	0.00	184.2
5C1	5.64	0.00	225.8

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 5L 5

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	10272.	12809.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
40.000	20.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
11.94	11.80	310.00	44.10	0.00	5.13	1.93

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
11.51	415.42	31.40	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	100.000	125.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.400	0.500	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	125.000	150.000	250.000	3000.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.500	0.400	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	U 5L 5		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension      Compression					
		-7.4	7.4		

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	175.3	100.8	179.7	96.4
OPER	292.2	168.0	299.5	160.7

## Live Load Effect

Impact Factors: ten - .189 comp - .212

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	50.32 R	42.31		153.00	53.21	44.73		125.00
		-40.18 L	-33.16		72.00	-37.89	-31.27		100.00
OPER	HS20	50.32 R	42.31		153.00	53.21	44.73		125.00
		-40.18 L	-33.16		72.00	-37.89	-31.27		100.00
OPER	2F1	42.45 L	33.02		115.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	62.83 R	48.87		135.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	69.89 L	54.36		111.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	48.71 R	40.95		176.00	0.00	0.00		0.00
		-37.32 L	-30.79		49.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.40	HS 47.98	86.4
HS20	4.00	HS 79.96	143.9
2F1	999.00	999.00	999.0
3F1	999.00	999.00	999.0
4F1	999.00	999.00	999.0
5C1	4.30	0.00	172.2

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 5L 6

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	54.00	1458.00	1604.36	9.00	5.20	5.45

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
53.10	1798.77	1340.34	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	150.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	150.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.500	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension		Compression		
536.2		0.0		

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	808.8	647.7	487.0	969.4
OPER	1347.9	1079.4	811.7	1615.6

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	146.58 R	129.34		164.00	211.58	186.69		150.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	146.58 R	129.34		164.00	211.58	186.69		150.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	63.33 L	55.88		140.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	96.12 L	84.81		140.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	112.15 L	98.96		136.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	150.96 R	133.20		166.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.30	HS 46.04	82.9
HS20	3.84	HS 76.73	138.1
2F1	12.82	0.00	192.3
3F1	8.44	0.00	194.2
4F1	7.24	0.00	195.4
5C1	5.38	0.00	215.1

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 5U 6

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14977.	18677.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	55.60	4745.06	2918.48	22.96	9.24	7.25

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
55.60	4745.06	2918.48	22.96

Truss influence line - loaded chord:

X ordinates:	0.000	125.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.562	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	125.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.562	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

RATING REPORT

Rating Types and Vehicles

Structure I. D. HAM500

			INV.	OPER	POST	SPEC
			HS20	HS20		
Truss I. D.		1		2F1		
Truss Member I. D.	U 5U 6			3F1		
				4F1		
				5C1		
Axial Dead Load						
	Tension	Compression				
	0.0	558.4				

Veh.	Axial Load Capacity	Available Capacity for LL+I
	Tension Compression	Tension Compression
INV.	846.8 692.6	1181.9 357.5
OPER	1411.4 1154.3	1969.8 595.8

Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck Live Load Force w/imp.	Force w/o imp.	Loc. of Front Wheel	Lane Live Load Force w/imp.	Force w/o imp.	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00	0.00	0.00	0.00	0.00
		-151.85 R	-133.99	139.00	-220.40	-194.47	125.00
OPER	HS20	0.00 R	0.00	0.00	0.00	0.00	0.00
		-151.85 R	-133.99	139.00	-220.40	-194.47	125.00
OPER	2F1	0.00 R	0.00	0.00	0.00	0.00	0.00
		-65.67 R	-57.94	135.00	0.00	0.00	0.00
OPER	3F1	0.00 R	0.00	0.00	0.00	0.00	0.00
		-100.07 R	-88.30	135.00	0.00	0.00	0.00
OPER	4F1	0.00 R	0.00	0.00	0.00	0.00	0.00
		-116.41 R	-102.71	139.00	0.00	0.00	0.00
OPER	5C1	0.00 R	0.00	0.00	0.00	0.00	0.00
		-155.05 L	-136.81	109.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.62	HS 32.44	58.4
HS20	2.70	HS 54.07	97.3
2F1	9.07	0.00	136.1
3F1	5.95	0.00	136.9
4F1	5.12	0.00	138.2
5C1	3.84	0.00	153.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 5U 6

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	5276.	6579.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
47.170	23.585	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.71	10.64	302.68	25.49	6.35	5.33	1.55

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
10.07	276.97	12.17	7.36

Truss influence line - loaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.590	-0.472	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.590	-0.472	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension	Compression			
42.0	0.0			

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	153.4	0.0	128.2	0.0
OPER	255.7	0.0	213.7	0.0

## Live Load Effect

Impact Factors: ten - .189 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	59.34 L	49.89		97.00	62.74	52.75		125.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	59.34 L	49.89		97.00	62.74	52.75		125.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	26.01 L	21.87		115.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	39.29 L	33.03		111.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	45.36 L	38.14		107.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	57.45 L	48.30		74.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.04	HS 40.86	73.6
HS20	3.40	HS 68.11	122.6
2F1	8.22	0.00	123.2
3F1	5.44	0.00	125.1
4F1	4.71	0.00	127.2
5C1	3.72	0.00	148.8

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 5L 6

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	5276.	6579.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
47.170	23.585	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.71	10.64	302.68	25.49	6.35	5.33	1.55

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
10.07	276.97	12.17	7.36

Truss influence line - loaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.590	0.472	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.590	0.472	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension	Compression			
0.0	0.0			

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	153.4	0.0	153.4	0.0
OPER	255.7	0.0	255.7	0.0

## Live Load Effect

Impact Factors: ten - .212 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	47.39 R	39.11		178.00	44.68	36.88		150.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	47.39 R	39.11		178.00	44.68	36.88		150.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	21.05 R	17.37		160.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	31.68 R	26.14		164.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	36.41 R	30.05		168.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	44.01 R	36.31		201.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	3.24	HS 64.74	116.5
HS20	5.39	HS107.90	194.2
2F1	12.14	0.00	182.2
3F1	8.07	0.00	185.6
4F1	7.02	0.00	189.6
5C1	5.81	0.00	232.4

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 6L 6

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	10272.	12809.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
40.000	20.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
11.94	11.80	310.00	44.10	0.00	5.13	1.93

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
11.51	415.42	31.40	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	125.000	150.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.433	0.480	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	150.000	175.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.520	0.360	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	U 6L 6		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
0.0	14.4				

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	175.3	100.8	184.0	92.1
OPER	292.2	168.0	306.6	153.6

## Live Load Effect

Impact Factors: ten - .210 comp - .191

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	48.13 R	39.78		178.00	45.86	37.90		150.00
		-43.68 L	-36.68		97.00	-45.76	-38.43		125.00
OPER	HS20	48.13 R	39.78		178.00	45.86	37.90		150.00
		-43.68 L	-36.68		97.00	-45.76	-38.43		125.00
OPER	2F1	21.38 R	17.67		160.00	0.00	0.00		0.00
		-19.15 L	-16.08		115.00	0.00	0.00		0.00
OPER	3F1	32.18 R	26.59		164.00	0.00	0.00		0.00
		-28.92 L	-24.29		111.00	0.00	0.00		0.00
OPER	4F1	36.98 R	30.56		168.00	0.00	0.00		0.00
		-33.39 L	-28.04		107.00	0.00	0.00		0.00
OPER	5C1	44.69 R	36.94		201.00	0.00	0.00		0.00
		-42.29 L	-35.51		74.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.01	HS 40.27	72.5
HS20	3.36	HS 67.12	120.8
2F1	8.02	0.00	120.3
3F1	5.31	0.00	122.1
4F1	4.60	0.00	124.2
5C1	3.63	0.00	145.3

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 6L 7

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	49.50	1336.50	1505.17	9.00	5.20	5.51

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
48.67	1648.87	1256.91	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	175.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.358	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	175.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.358	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

RATING REPORT

Rating Types and Vehicles

Structure I. D. HAM500

			INV.	OPER	POST	SPEC
			HS20	HS20		
Truss I. D.		1		2F1		
Truss Member I. D.	L 6L 7			3F1		
				4F1		
				5C1		
Axial Dead Load						
Tension      Compression						
485.7		0.0				

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	741.4	593.7	450.0	885.1
OPER	1235.6	989.5	749.9	1475.2

Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	133.19 L	117.52		147.00	191.50	168.97		175.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	133.19 L	117.52		147.00	191.50	168.97		175.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	57.51 L	50.74		165.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	87.25 L	76.99		161.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	101.56 L	89.61		161.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	137.77 R	121.56		187.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.35	HS 46.99	84.6
HS20	3.92	HS 78.32	141.0
2F1	13.04	0.00	195.6
3F1	8.60	0.00	197.7
4F1	7.38	0.00	199.4
5C1	5.44	0.00	217.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 6U 7

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14975.	18675.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.035	25.035	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	55.60	4745.06	2918.48	22.96	9.24	7.25

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
55.60	4745.06	2918.48	22.96

Truss influence line - loaded chord:

X ordinates:	0.000	150.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.502	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	150.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.502	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension		Compression		
0.0		536.9		

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	846.8	692.5	1169.0	370.3
OPER	1411.4	1154.2	1948.3	617.2

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-146.79 R	-129.52		164.00	-211.88	-186.95		150.00
OPER	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-146.79 R	-129.52		164.00	-211.88	-186.95		150.00
OPER	2F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-63.42 L	-55.96		140.00	0.00	0.00		0.00
OPER	3F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-96.25 L	-84.93		140.00	0.00	0.00		0.00
OPER	4F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-112.31 L	-99.10		136.00	0.00	0.00		0.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-151.17 R	-133.39		166.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.75	HS 34.96	62.9
HS20	2.91	HS 58.26	104.9
2F1	9.73	0.00	146.0
3F1	6.41	0.00	147.5
4F1	5.50	0.00	148.4
5C1	4.08	0.00	163.3

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 6U 7

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	8643.	10779.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
46.048	23.024	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.06	13.20	350.00	50.00	0.00	5.15	1.95

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
12.88	470.25	35.82	0.78

Truss influence line - loaded chord:

X ordinates:	0.000	150.000	175.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.619	-0.428	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	150.000	175.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.619	-0.428	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	L 6U 7		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
93.1	0.0				

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	196.2	94.9	140.3	150.7
OPER	327.0	158.1	233.9	251.2

## Live Load Effect

Impact Factors: ten - .173 comp - .238

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	62.28 L	53.12		122.00	72.62	61.94		150.00
		-42.47 R	-34.31		203.00	-35.89	-28.99		175.00
OPER	HS20	62.28 L	53.12		122.00	72.62	61.94		150.00
		-42.47 R	-34.31		203.00	-35.89	-28.99		175.00
OPER	2F1	27.06 L	23.08		140.00	0.00	0.00		0.00
		-19.31 R	-15.60		185.00	0.00	0.00		0.00
OPER	3F1	40.98 L	34.95		136.00	0.00	0.00		0.00
		-28.87 R	-23.32		189.00	0.00	0.00		0.00
OPER	4F1	47.45 L	40.47		132.00	0.00	0.00		0.00
		-32.93 R	-26.60		193.00	0.00	0.00		0.00
OPER	5C1	61.88 L	52.77		99.00	0.00	0.00		0.00
		-36.48 R	-29.47		226.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.93	HS 38.65	69.6
HS20	3.22	HS 64.42	115.9
2F1	8.64	0.00	129.7
3F1	5.71	0.00	131.3
4F1	4.93	0.00	133.1
5C1	3.78	0.00	151.2

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 7L 7

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	10618.	13241.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
38.670	19.335	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Iy	Dy	Rx	Ry
11.94	11.80	310.00	44.10	0.00	5.13	1.93

Net Section Properties:

Area	Moment of Inertia Ix	Iy	Dy
11.51	415.42	31.40	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	150.000	175.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.414	0.517	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	175.000	200.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.483	0.345	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	U 7L 7		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
0.0	36.3				

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	175.3	104.2	197.1	82.4
OPER	292.2	173.7	328.5	137.4

## Live Load Effect

Impact Factors: ten - .234 comp - .175

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	51.09 R	41.41		203.00	37.64	30.51		175.00
		-41.69 L	-35.48		122.00	-42.94	-36.55		150.00
OPER	HS20	51.09 R	41.41		203.00	37.64	30.51		175.00
		-41.69 L	-35.48		122.00	-42.94	-36.55		150.00
OPER	2F1	23.23 R	18.83		185.00	0.00	0.00		0.00
		-18.11 L	-15.42		140.00	0.00	0.00		0.00
OPER	3F1	34.73 R	28.15		189.00	0.00	0.00		0.00
		-27.43 L	-23.35		136.00	0.00	0.00		0.00
OPER	4F1	39.61 R	32.11		193.00	0.00	0.00		0.00
		-31.76 L	-27.03		132.00	0.00	0.00		0.00
OPER	5C1	43.89 R	35.58		226.00	0.00	0.00		0.00
		-41.41 L	-35.25		99.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.92	HS 38.38	69.1
HS20	3.20	HS 63.97	115.2
2F1	7.59	0.00	113.8
3F1	5.01	0.00	115.2
4F1	4.32	0.00	116.8
5C1	3.32	0.00	132.7

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 7L 8

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	40.50	1093.50	1284.58	9.00	5.20	5.63

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
39.83	1349.08	1071.91	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	200.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.154	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	200.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	1.154	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	L 7L 8		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
413.2	0.0				

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	606.6	485.7	358.6	733.7
OPER	1010.9	809.6	597.7	1222.8

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	113.98 L	100.57		172.00	162.74	143.59		200.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	113.98 L	100.57		172.00	162.74	143.59		200.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	48.99 L	43.22		190.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	74.43 L	65.67		186.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	86.48 L	76.31		182.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	117.06 R	103.29		212.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.20	HS 44.07	79.3
HS20	3.67	HS 73.46	132.2
2F1	12.20	0.00	183.0
3F1	8.03	0.00	184.7
4F1	6.91	0.00	186.6
5C1	5.11	0.00	204.3

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 7U 8

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14972.	18671.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.318	25.318	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	52.00	4491.89	2777.39	22.52	9.29	7.31

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
52.00	4491.89	2777.39	22.52

Truss influence line - loaded chord:

X ordinates:	0.000	175.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.375	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	175.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.375	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	U 7U 8		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
0.0	491.8				

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	792.0	647.5	1087.1	352.4
OPER	1320.0	1079.2	1811.8	587.4

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-134.89 L	-119.02		147.00	-193.94	-171.12		175.00
OPER	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-134.89 L	-119.02		147.00	-193.94	-171.12		175.00
OPER	2F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-58.24 L	-51.39		165.00	0.00	0.00		0.00
OPER	3F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-88.36 L	-77.97		161.00	0.00	0.00		0.00
OPER	4F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-102.85 L	-90.75		161.00	0.00	0.00		0.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-139.52 R	-123.11		187.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.82	HS 36.34	65.4
HS20	3.03	HS 60.57	109.0
2F1	10.09	0.00	151.3
3F1	6.65	0.00	152.9
4F1	5.71	0.00	154.2
5C1	4.21	0.00	168.4

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 7U 8

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	4116.	5133.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
42.743	42.743	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.06	15.60	425.00	95.80	0.00	5.22	2.48

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
15.60	587.24	67.82	0.89

Truss influence line - loaded chord:

X ordinates:	0.000	175.000	200.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.595	-0.425	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	175.000	200.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.595	-0.425	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	L 7U 8		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
123.9	0.0				

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	237.6	53.4	163.3	127.7
OPER	396.0	89.0	272.1	212.9

## Live Load Effect

Impact Factors: ten - .159 comp - .270

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	59.71 L	51.52		147.00	75.92	65.51		175.00
		-40.14 R	-31.62		228.00	-31.07	-24.47		200.00
OPER	HS20	59.71 L	51.52		147.00	75.92	65.51		175.00
		-40.14 R	-31.62		228.00	-31.07	-24.47		200.00
OPER	2F1	25.78 L	22.25		165.00	0.00	0.00		0.00
		-19.19 R	-15.12		210.00	0.00	0.00		0.00
OPER	3F1	39.12 L	33.75		161.00	0.00	0.00		0.00
		-28.30 R	-22.29		214.00	0.00	0.00		0.00
OPER	4F1	45.38 L	39.16		157.00	0.00	0.00		0.00
		-31.75 R	-25.01		218.00	0.00	0.00		0.00
OPER	5C1	60.38 L	52.10		124.00	0.00	0.00		0.00
		-28.43 R	-22.39		251.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.15	HS 43.01	77.4
HS20	3.58	HS 71.68	129.0
2F1	10.56	0.00	158.3
3F1	6.96	0.00	160.0
4F1	6.00	0.00	161.9
5C1	4.51	0.00	180.3

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 8L 8

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	9039.	11272.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
34.670	34.670	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.12	19.10	533.00	174.00	0.00	5.28	3.02

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
19.10	708.48	135.48	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	175.000	200.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.431	0.508	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	200.000	225.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-0.492	0.254	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	U 8L 8		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
0.0	75.3				

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	290.9	143.6	336.1	98.4
OPER	484.8	239.3	560.1	164.0

## Live Load Effect

Impact Factors: ten - .265 comp - .161

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	47.78 R	37.77		228.00	31.28	24.72		200.00
		-43.26 L	-37.28		147.00	-49.30	-42.48		175.00
OPER	HS20	47.78 R	37.77		228.00	31.28	24.72		200.00
		-43.26 L	-37.28		147.00	-49.30	-42.48		175.00
OPER	2F1	22.85 R	18.06		210.00	0.00	0.00		0.00
		-18.68 L	-16.10		165.00	0.00	0.00		0.00
OPER	3F1	33.68 R	26.62		214.00	0.00	0.00		0.00
		-28.34 L	-24.42		161.00	0.00	0.00		0.00
OPER	4F1	37.80 R	29.87		218.00	0.00	0.00		0.00
		-32.88 L	-28.33		157.00	0.00	0.00		0.00
OPER	5C1	34.95 L	27.63		188.00	0.00	0.00		0.00
		-43.75 L	-37.70		124.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.00	HS 39.93	71.9
HS20	3.33	HS 66.54	119.8
2F1	8.78	0.00	131.7
3F1	5.79	0.00	133.1
4F1	4.99	0.00	134.7
5C1	3.75	0.00	150.0

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 8L 9

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	29.24	789.74	978.64	9.00	5.20	5.79

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
28.75	974.29	816.11	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension	Compression			
290.2	0.0			

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	437.9	350.7	263.8	524.9
OPER	729.9	584.5	439.7	874.8

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	79.82 L	70.43	197.00	113.35	100.01	225.00		
		0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OPER	HS20	79.82 L	70.43	197.00	113.35	100.01	225.00		
		0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OPER	2F1	34.18 L	30.16	215.00	0.00	0.00	0.00		
		0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OPER	3F1	51.99 L	45.87	211.00	0.00	0.00	0.00		
		0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OPER	4F1	60.48 L	53.37	207.00	0.00	0.00	0.00		
		0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OPER	5C1	82.57 L	72.85	174.00	0.00	0.00	0.00		
		0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.33	HS 46.55	83.8
HS20	3.88	HS 77.58	139.6
2F1	12.86	0.00	192.9
3F1	8.46	0.00	194.5
4F1	7.27	0.00	196.3
5C1	5.32	0.00	213.0

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 8U 9

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14958.	18653.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.874	25.874	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.25	45.20	4124.31	2460.90	24.81	9.55	7.38

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
45.20	4124.31	2460.90	24.81

Truss influence line - loaded chord:

X ordinates:	0.000	200.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.194	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	200.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.194	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension	Compression			
0.0	427.7			

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	688.4	562.3	945.0	305.7
OPER	1147.4	937.2	1575.1	509.5

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-117.97 L	-104.09	172.00	172.00	-168.43	-148.62	200.00	200.00
OPER	HS20	0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-117.97 L	-104.09	172.00	172.00	-168.43	-148.62	200.00	200.00
OPER	2F1	0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-50.70 L	-44.74	190.00	190.00	0.00	0.00	0.00	0.00
OPER	3F1	0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-77.03 L	-67.97	186.00	186.00	0.00	0.00	0.00	0.00
OPER	4F1	0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-89.51 L	-78.98	182.00	182.00	0.00	0.00	0.00	0.00
OPER	5C1	0.00 R	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		-121.15 R	-106.90	212.00	212.00	0.00	0.00	0.00	0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.82	HS 36.30	65.3
HS20	3.03	HS 60.50	108.9
2F1	10.05	0.00	150.7
3F1	6.61	0.00	152.1
4F1	5.69	0.00	153.7
5C1	4.20	0.00	168.2

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 8U 9

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	7915.	9871.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
37.537	37.537	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
12.12	19.10	533.00	174.00	0.00	5.28	3.02

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
19.10	708.48	135.48	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	200.000	225.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.660	-0.340	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	200.000	225.000	250.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.660	-0.340	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	L 8U 9		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
184.6	0.0				

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	290.9	125.7	180.1	236.5
OPER	484.8	209.6	300.2	394.2

## Live Load Effect

Impact Factors: ten - .146 comp - .300

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	65.94	L	57.52	172.00	91.53	79.84	200.00	
		-25.90	R	-19.92	253.00	-20.64	-15.87	225.00	
OPER	HS20	65.94	L	57.52	172.00	91.53	79.84	200.00	
		-25.90	R	-19.92	253.00	-20.64	-15.87	225.00	
OPER	2F1	28.34	L	24.72	190.00	0.00	0.00	0.00	
		-14.61	R	-11.24	235.00	0.00	0.00	0.00	
OPER	3F1	43.06	L	37.56	186.00	0.00	0.00	0.00	
		-20.55	R	-15.80	239.00	0.00	0.00	0.00	
OPER	4F1	50.03	L	43.64	182.00	0.00	0.00	0.00	
		-21.71	R	-16.70	243.00	0.00	0.00	0.00	
OPER	5C1	67.54	L	58.92	149.00	0.00	0.00	0.00	
		-17.58	R	-13.52	276.00	0.00	0.00	0.00	

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.97	HS 39.36	70.8
HS20	3.28	HS 65.60	118.1
2F1	10.59	0.00	158.9
3F1	6.97	0.00	160.4
4F1	6.00	0.00	162.0
5C1	4.45	0.00	177.8

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 9L 9

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	5837.	7280.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
28.000	28.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
11.94	11.80	310.00	44.10	0.00	5.13	1.93

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
11.51	415.42	31.40	0.77

Truss influence line - loaded chord:

X ordinates:	0.000	200.000	225.000	250.000	250.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	250.000	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

		INV.	OPER	POST	SPEC
Truss I. D.	1	HS20	HS20		
Truss Member I. D.	U 9L 9		2F1		
			3F1		
			4F1		
			5C1		
Axial Dead Load					
Tension	Compression				
69.7	0.0				

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	175.3	57.3	133.5	99.1
OPER	292.2	95.5	222.4	165.2

## Live Load Effect

Impact Factors: ten - .286 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	80.99 R	62.99		239.00	55.52	43.18		225.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	80.99 R	62.99		239.00	55.52	43.18		225.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	42.45 L	33.02		215.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	62.83 R	48.87		235.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	69.89 L	54.36		211.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	61.26 R	47.65		237.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	1.65	HS 32.96	59.3
HS20	2.75	HS 54.93	98.9
2F1	5.24	0.00	78.6
3F1	3.54	0.00	81.4
4F1	3.18	0.00	85.9
5C1	3.63	0.00	145.2

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. L 9L10

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14421.	17984.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
25.000	25.000	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
18.00	29.24	789.74	978.64	9.00	5.20	5.79

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
28.75	974.29	816.11	10.37

Truss influence line - loaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	0.804	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension	Compression			
290.2	0.0			

Veh.	Axial Load Capacity		Available Capacity for LL+I	
	Tension	Compression	Tension	Compression
INV.	437.9	350.7	263.8	524.9
OPER	729.9	584.5	439.7	874.8

## Live Load Effect

Impact Factors: ten - .133 comp - .000

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	79.82 L	70.43		197.00	113.35	100.01		225.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	HS20	79.82 L	70.43		197.00	113.35	100.01		225.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	2F1	34.18 L	30.16		215.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	3F1	51.99 L	45.87		211.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	4F1	60.48 L	53.37		207.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00
OPER	5C1	82.57 L	72.85		174.00	0.00	0.00		0.00
		0.00 R	0.00		0.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.33	HS 46.55	83.8
HS20	3.88	HS 77.58	139.6
2F1	12.86	0.00	192.9
3F1	8.46	0.00	194.5
4F1	7.27	0.00	196.3
5C1	5.32	0.00	213.0

SECTION DATA ( ASD/LFD )

Structure I. D. HAM500

Truss I. D. 1  
 Truss Member I. D. U 9L10

RATIO/Inv.	Allowable stress (fs) (psi)			
	Inventory	Operating	Posting	Special
Fy (tension)	18150.	24750.	0.	0.
Fy (compression)	14238.	17756.	0.	0.
Fy (ultimate)	33000.			

Member Properties:

Effective Length X (ft)	Effective Length Y (ft)	Eccentricity Y (in)	End Cond.	Batton
37.537	37.537	0.00	P	1.0

Gross Section Properties:

Height	Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy	Rx	Ry
29.31	55.60	4745.06	2918.48	22.96	9.24	7.25

Net Section Properties:

Area	Moment of Inertia Ix	Moment of Inertia Iy	Dy
55.60	4745.06	2918.48	22.96

Truss influence line - loaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.207	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

Truss influence line - unloaded chord:

X ordinates:	0.000	225.000	250.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						
Y ordinates:	0.000	-1.207	0.000	0.000	0.000	0.000	0.000	0
.000	0.000	0.000						

## RATING REPORT

## Rating Types and Vehicles

Structure I. D.

HAM500

	INV.	OPER	POST	SPEC
Truss I. D.	HS20	HS20		
Truss Member I. D.		2F1		
		3F1		
		4F1		
		5C1		
Axial Dead Load				
Tension	Compression			
0.0	435.8			

Veh.	Axial Tension	Load Capacity Compression	Available Tension	Capacity for LL+I Compression
INV.	846.8	658.4	1108.3	396.9
OPER	1411.4	1097.3	1847.2	661.5

## Live Load Effect

Impact Factors: ten - .000 comp - .133

Rat. Typ.	Rat. Veh.	Truck w/imp.	Live Load w/o imp.	Force	Loc. of Front Wheel	Lane w/imp.	Live Load w/o imp.	Force	Loc. of Conc. Load
INV.	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-119.85 L	-105.75		197.00	-184.08	-162.42		225.00
OPER	HS20	0.00 R	0.00		0.00	0.00	0.00		0.00
		-119.85 L	-105.75		197.00	-184.08	-162.42		225.00
OPER	2F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-51.33 L	-45.29		215.00	0.00	0.00		0.00
OPER	3F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-78.06 L	-68.88		211.00	0.00	0.00		0.00
OPER	4F1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-90.81 L	-80.13		207.00	0.00	0.00		0.00
OPER	5C1	0.00 R	0.00		0.00	0.00	0.00		0.00
		-123.97 L	-109.39		174.00	0.00	0.00		0.00

Veh.	Rating Factor	Axial Rating Value	Load Capacity (tons)
HS20	2.16	HS 43.13	77.6
HS20	3.59	HS 71.88	129.4
2F1	12.89	0.00	193.3
3F1	8.48	0.00	194.9
4F1	7.28	0.00	196.7
5C1	5.34	0.00	213.5