








	H-25 TRUCK	H-20 TRUCK	H-15 TRUCK	AUTOMOBILE	5-TON FORKLIFT	3-TON FORKLIFT	1-TON FORKLIFT	
HEAVY-DUTY VEHICLE LOADS	 Truck Traffic 40,000 Lb. Axle Load Dual Wheels	 Truck Traffic 32,000 Lb. Axle Load Dual Wheels	 Truck Traffic 24,000 Lb. Axle Load Dual Wheels	 Automobile Traffic 6,322 Lb. Vehicle 3,578 Lb. Load	 10,000 Lb. Cap. Lift Truck 14,400 Lb. Vehicle 24,400 Lb. Total Load	 6,000 Lb. Cap. Lift Truck 9,800 Lb. Vehicle 15,800 Lb. Total Load	 2,000 Lb. Cap. Lift Truck 4,200 Lb. Vehicle 6,200 Lb. Total Load	
	MAXIMUM TRAFFIC CONDITIONS	Modified AASHTO H-25	Modified AASHTO H-20	Modified AASHTO H-15	60% Drive Axle Load	85% Drive Axle Load	85% Drive Axle Load	85% Drive Axle Load
	WHEEL LOAD (LBS.) (1/2 AXLE LOAD + 30% IMPACT)	26,000	20,800	15,600	3,861	13,480	8,730	3,425
	LOAD DISTRIBUTION: PARALLEL WITH AXLE	2 (C)* + 25"	2 (C)* + 20"	2 (C)* + 15"	2 (C)* + 9"	2 (C)* + 11"	2 (C)* + 7"	2 (C)* + 4"
	LOAD DISTRIBUTION: PERPENDICULAR TO AXLE	25"	20"	15"	9"	11"	7"	4"

C* = Center-to-center spacing of bearing bars | Allowable Stress: 20,000 PSI | Module of Elasticity: 29,000,000 PSI

BEARING BAR SIZE (INCHES)	SECTION MODULUS PER FOOT OF WIDTH	MOMENT OF INERTIA PER FOOT OF WIDTH	APPROX. WEIGHT (P/SP)	MAXIMUM SAFE SPAN						
				H-25 TRUCK	H-20 TRUCK	H-15 TRUCK	AUTO TRAFFIC	5-TON FORKLIFT	3-TON FORKLIFT	1-TON FORKLIFT
1 x 1/4	0.421	0.211	9.7	1'-0"	0'-10"	0'-9"	1'-0"	0'-7"	0'-6"	0'-7"
1 x 5/16	0.526	0.263	11.9	1'-1"	1'-0"	0'-10"	1'-2"	0'-8"	0'-7"	0'-8"
1 x 3/8	0.632	0.316	14.0	1'-2"	1'-1"	0'-11"	1'-4"	0'-9"	0'-8"	0'-9"
1-1/4 x 1/4	0.658	0.411	11.9	1'-3"	1'-1"	1'-0"	1'-5"	0'-9"	0'-8"	0'-10"
1-1/4 x 5/16	0.822	0.514	14.5	1'-4"	1'-3"	1'-1"	1'-8"	0'-10"	0'-9"	1'-0"
1-1/4 x 3/8	0.987	0.617	17.2	1'-6"	1'-4"	1'-2"	1'-11"	1'-0"	0'-10"	1'-2"
1-1/2 x 1/4	0.947	0.711	14.0	1'-6"	1'-4"	1'-2"	1'-11"	0'-11"	0'-10"	1'-1"
1-1/2 x 5/16	1.184	0.888	17.2	1'-8"	1'-6"	1'-4"	2'-3"	1'-1"	0'-11"	1'-4"
1-1/2 x 3/8	1.421	1.066	20.4	1'-10"	1'-8"	1'-6"	2'-6"	1'-2"	1'-1"	1'-7"
1-3/4 x 1/4	1.289	1.128	16.2	1'-9"	1'-7"	1'-5"	2'-5"	1'-2"	1'-0"	1'-5"
1-3/4 x 5/16	1.612	1.410	19.9	1'-11"	1'-9"	1'-7"	2'-11"	1'-4"	1'-3"	1'-9"
1-3/4 x 3/8	1.934	1.692	23.7	2'-2"	1'-11"	1'-9"	3'-2"	1'-6"	1'-5"	2'-1"
2 x 1/4	1.684	1.684	18.3	2'-0"	1'-10"	1'-8"	3'-1"	1'-4"	1'-3"	1'-10"
2 x 5/16	2.105	2.105	22.6	2'-3"	2'-1"	1'-11"	3'-6"	1'-7"	1'-6"	2'-4"
2 x 3/8	2.526	2.526	26.9	2'-6"	2'-4"	2'-2"	3'-10"	1'-10"	1'-9"	2'-9"
2-1/4 x 1/4	2.132	2.398	20.4	2'-3"	2'-1"	1'-11"	3'-9"	1'-7"	1'-6"	2'-4"
2-1/4 x 5/16	2.664	2.998	25.3	2'-7"	2'-5"	2'-3"	4'-2"	1'-11"	1'-10"	2'-11"
2-1/4 x 3/8	3.197	3.597	30.1	2'-10"	2'-8"	2'-7"	4'-5"	2'-2"	2'-2"	3'-5"
2-1/2 x 1/4	2.632	3.289	22.6	2'-6"	2'-4"	2'-3"	4'-4"	1'-10"	1'-10"	2'-10"
2-1/2 x 5/16	3.289	4.112	28.0	2'-11"	2'-9"	2'-7"	4'-8"	2'-3"	2'-3"	3'-6"
2-1/2 x 3/8	3.947	4.934	33.3	3'-4"	3'-2"	3'-0"	4'-11"	2'-7"	2'-7"	4'-2"
3 x 1/4	3.789	5.684	26.9	3'-3"	3'-1"	2'-11"	5'-2"	2'-6"	2'-6"	4'-1"
3 x 5/16	4.737	7.105	33.3	3'-9"	3'-7"	3'-6"	5'-7"	3'-0"	3'-1"	4'-9"
3 x 3/8	5.684	8.526	39.8	4'-4"	4'-2"	4'-1"	5'-11"	3'-7"	3'-8"	5'-1"
3-1/2 x 1/4	5.158	9.026	31.2	4'-0"	3'-10"	3'-9"	6'-0"	3'-3"	3'-4"	5'-2"
3-1/2 x 5/16	6.447	11.283	38.7	4'-9"	4'-7"	4'-7"	6'-6"	4'-0"	4'-1"	5'-7"
3-1/2 x 3/8	7.737	13.539	46.2	5'-0"	5'-0"	5'-0"	6'-11"	4'-8"	4'-10"	5'-11"
4 x 1/4	6.737	13.474	35.5	4'-11"	4'-10"	4'-9"	6'-1"	4'-2"	4'-3"	5'-11"
4 x 5/16	8.421	16.842	44.1	5'-5"	5'-5"	5'-5"	7'-7"	5'-1"	5'-3"	6'-4"
4 x 3/8	10.105	20.211	52.7	5'-8"	5'-8"	5'-9"	7'-11"	5'-6"	5'-8"	6'-9"
4-1/2 x 1/4	8.526	19.184	39.8	5'-7"	5'-7"	5'-8"	7'-9"	5'-1"	5'-4"	6'-8"
4-1/2 x 5/16	10.658	23.980	49.4	6'-0"	6'-0"	6'-1"	8'-6"	5'-10"	6'-0"	7'-2"
4-1/2 x 3/8	12.789	28.776	59.1	6'-5"	6'-5"	6'-5"	8'-11"	6'-2"	6'-4"	7'-7"
5 x 1/4	10.526	26.316	44.1	6'-3"	6'-3"	6'-3"	8'-8"	6'-0"	6'-2"	7'-5"
5 x 3/8	15.789	39.474	65.5	7'-1"	7'-1"	7'-2"	9'-11"	6'-11"	7'-1"	8'-6"
5 x 1/2	21.053	52.632	87.0	7'-10"	7'-10"	7'-11"	10'-11"	7'-7"	7'-9"	9'-4"
6 x 1/4	15.158	45.474	52.7	7'-5"	7'-5"	7'-6"	10'-4"	7'-3"	7'-5"	8'-11"
6 x 3/8	22.737	68.211	78.4	8'-6"	8'-6"	8'-7"	11'-10"	8'-3"	8'-0"	10'-2"
6 x 1/2	30.316	90.947	104.2	9'-4"	9'-4"	9'-5"	13'-1"	9'-1"	9'-4"	11'-2"
7 x 1/4	20.632	72.211	61.2	8'-8"	8'-8"	8'-9"	12'-1"	8'-5"	8'-8"	10'-4"
7 x 3/8	30.947	108.316	91.3	9'-11"	9'-11"	10'-0"	13'-10"	9'-8"	9'-11"	11'-10"
7 x 1/2	41.263	144.421	121.4	10'-10"	10'-11"	11'-0"	15'-3"	10'-7"	10'-11"	13'-1"

Technical information provided is for evaluation by technically skilled persons, with any use thereof to be at their independent discretion and risk. McNICHOLS shall have no responsibility or liability for results obtained or damages resulting from improper evaluation or use of Heavy-Duty Bar Grating.