



**ROCKER**

★ 400 K ≤ REACTION < 1000 K. USE 5/8" WELD.  
 1000 K ≤ REACTION ≤ 1500 K. USE 3/4" WELD.

\* FOR REACTION ≥ 1000 KIPS  
 USE 2" STIFFENERS.

**TABLE OF DIMENSIONS**

REACTION (KIPS)	A	B	C	D	E	G VALUES												H	K	M	R	r		PINTLE						
						G=1'-7"		G=1'-9"		G=1'-11"		G=2'-1"		G=2'-3"		G=2'-5"						STEM	PLATE	P DIA.	O					
						F	L	F	L	F	L	F	L	F	L	F	L													
400-499	1 5/8"	2 5/8"	3"	1'-2"	2 7/8"	2'-0"	2'-11"	2'-2"	2'-11"	2'-4"	3'-0"	2'-6"	3'-2"	—	—	—	—	—	—	—	—	1'-7 1/2"	1'-6"	2 7/8"	1'-1"	1 5/8"	1 3/4"	2"	3 1/2"	
500-599	1 5/8"	2 5/8"	3"	1'-2"	2 7/8"	2'-1"	3'-4"	2'-2"	3'-4"	2'-4"	3'-4"	2'-6"	3'-4"	—	—	—	—	—	—	—	—	1'-8 1/2"	1'-7"	2 7/8"	1'-2"	1 5/8"	1 3/4"	2"	3 1/2"	
600-699	1 5/8"	2 5/8"	3"	1'-2"	2 7/8"	—	—	2'-3"	3'-8"	2'-4"	3'-8"	2'-6"	3'-8"	2'-8"	3'-8"	—	—	—	—	—	—	1'-9 1/2"	1'-8"	2 7/8"	1'-3"	1 5/8"	1 3/4"	2"	3 1/2"	
700-799	2 1/8"	3 1/8"	3 1/2"	1'-4"	3 3/8"	—	—	—	2'-6"	3'-10"	2'-6"	3'-10"	2'-8"	3'-10"	2'-10"	3'-10"	—	—	—	—	—	1'-11 1/2"	1'-10"	3 3/8"	1'-4"	1 5/8"	1 3/4"	2"	3 1/2"	
800-899	2 1/8"	3 1/8"	3 1/2"	1'-4"	3 3/8"	—	—	—	2'-7"	3'-11"	2'-7"	3'-11"	2'-8"	3'-11"	2'-10"	3'-11"	—	—	—	—	—	2'-0 1/2"	2'-0"	3 3/8"	1'-5"	1 5/8"	1 3/4"	2"	3 1/2"	
900-999	2 1/8"	3 1/8"	3 1/2"	1'-4"	3 3/8"	—	—	—	2'-11"	4'-0"	2'-11"	4'-0"	2'-11"	4'-0"	2'-11"	4'-0"	—	—	—	—	—	2'-1 1/2"	2'-2"	3 3/8"	1'-6"	1 5/8"	1 3/4"	2"	3 1/2"	
1000-1099	2 1/8"	3 1/8"	4"	1'-6"	3 3/8"	—	—	—	—	3'-1"	4'-1"	3'-1"	4'-1"	3'-1"	4'-1"	—	—	—	—	—	—	2'-3 1/2"	2'-4"	3 3/8"	1'-7"	2 3/8"	2 3/4"	2 1/2"	3 3/4"	
1100-1199	2 1/8"	3 1/8"	4"	1'-6"	3 3/8"	—	—	—	—	3'-3"	4'-2"	3'-3"	4'-2"	3'-3"	4'-2"	—	—	—	—	—	—	2'-4 1/2"	2'-6"	3 3/8"	1'-8"	2 3/8"	2 3/4"	2 1/2"	3 3/4"	
1200-1299	2 1/8"	3 1/8"	4"	1'-6"	3 3/8"	—	—	—	—	3'-5"	4'-4"	3'-5"	4'-4"	3'-5"	4'-4"	—	—	—	—	—	—	2'-5 1/2"	2'-7"	3 3/8"	1'-9"	2 3/8"	2 3/4"	2 1/2"	3 3/4"	
1300-1399	2 1/8"	3 1/8"	4"	1'-6"	3 3/8"	—	—	—	—	3'-7"	4'-7"	3'-7"	4'-7"	3'-7"	4'-7"	—	—	—	—	—	—	2'-6 1/2"	2'-8"	3 3/8"	1'-10"	2 3/8"	2 3/4"	2 1/2"	3 3/4"	
1400-1500	2 1/8"	3 1/8"	4"	1'-6"	3 3/8"	—	—	—	—	3'-9"	4'-9"	3'-9"	4'-9"	3'-9"	4'-9"	—	—	—	—	—	—	2'-7 1/2"	2'-9"	3 3/8"	1'-11"	2 3/8"	2 3/4"	2 1/2"	3 3/4"	
0-300	1 5/8"	2 5/8"	3"	1'-0"	2 3/8"																									

**NOTES**  
 FABRICATOR MAY INCREASE "BASE PLATE" THICKNESS AS AN ALTERNATE TO SHIMS.  
 ALL STRUCTURAL STEEL BEARING PLATES SHALL BE FLAT ROLLED STEEL PLATES WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.  
 ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS. ON WELDED BEARINGS, FINAL MACHINING CAN BE PERFORMED BEFORE WELDING IS COMPLETED.  
 ALL MATERIAL IN TYPE "B" ROCKER BEARINGS, INCLUDING SHIMS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLY EXPANSION B-...".  
 ALL MATERIALS FOR BEARINGS INCLUDING SHIMS BUT EXCLUDING PINTLES, ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM SPECIFICATION TYPE A709 GRADE 50W STEEL.  
 PINTLES SHALL CONFORM TO ASTM SPECIFICATION TYPE A449 STEEL. PINTLES SHALL BE MACHINED TO A DRIVING FIT.  
 ALL ANCHOR BOLTS, NUTS, AND WASHERS SHALL CONFORM TO ASTM SPECIFICATION TYPE A709 GRADE 36 STEEL. ANCHOR BOLTS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. PROJECT ANCHOR BOLTS "M" PLATE THICKNESS + 2/4" ABOVE TOP OF CONCRETE MASONRY. CHAMFER ANCHOR BOLTS PRIOR TO THREADING.  
 RADIAL SURFACES ON ROCKER SHALL BE MACHINE FINISHED AFTER WELDING.  
 ALL SURFACES MARKED "f" SHALL BE MACHINE FINISHED BY AN AUTOMATIC PROCESS. THE CONTACT AREA OF BOTTOM SURFACE OF THE GIRDER FLANGE SHALL BE MACHINE FINISHED.  
 ANCHOR BOLT EDGE DISTANCE ALONG "L" MAY BE INCREASED FROM MINIMUM SHOWN WHEN A COMMON GRID DETAIL IS DESIRED FOR SEVERAL BEARINGS.  
 FOR UNPAINTED STRUCTURES THE UPPER 6" OF ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AS REQUIRED BY ASTM DESIGNATION A153, CLASS C OR B633.

USE AASHTO LRFD SERVICE LOADS FOR BEARING INCLUDING. CONSIDER ONLY DEAD LOAD AND HL-93 LIVE LOADS INCLUDING 33% DYNAMIC LOAD ALLOWANCE. THE BEARINGS ON THIS STANDARD WERE DESIGNED USING THE STANDARD SPECIFICATION.

**ROCKER SETTING DATA**

TEMPERATURE TIME OF SETTING	VERTICAL			
	PIER (+)	PIER (+)	PIER (-)	PIER (-)
120				
100				
80				
60				
40				
20				
0				
-20				

ROCKER BEARING SHALL BE SET VERTICAL AT 45° F.  
 ROCKER BEARING SHALL BE USED WITH A MINIMUM FRICTION VALUE OF 2% AND A MAXIMUM FRICTION VALUE OF 4%.  
 MAXIMUM MOVEMENT FROM 45° F = |D - F|/2 BUT ACTUAL MOVEMENT NOT TO EXCEED R/3.  
 OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

**ROCKER BEARING TYPE  
 'B' - STEEL GIRDERS**

**BUREAU OF STRUCTURES**

APPROVED: Bill Oliva

DATE: 7-16