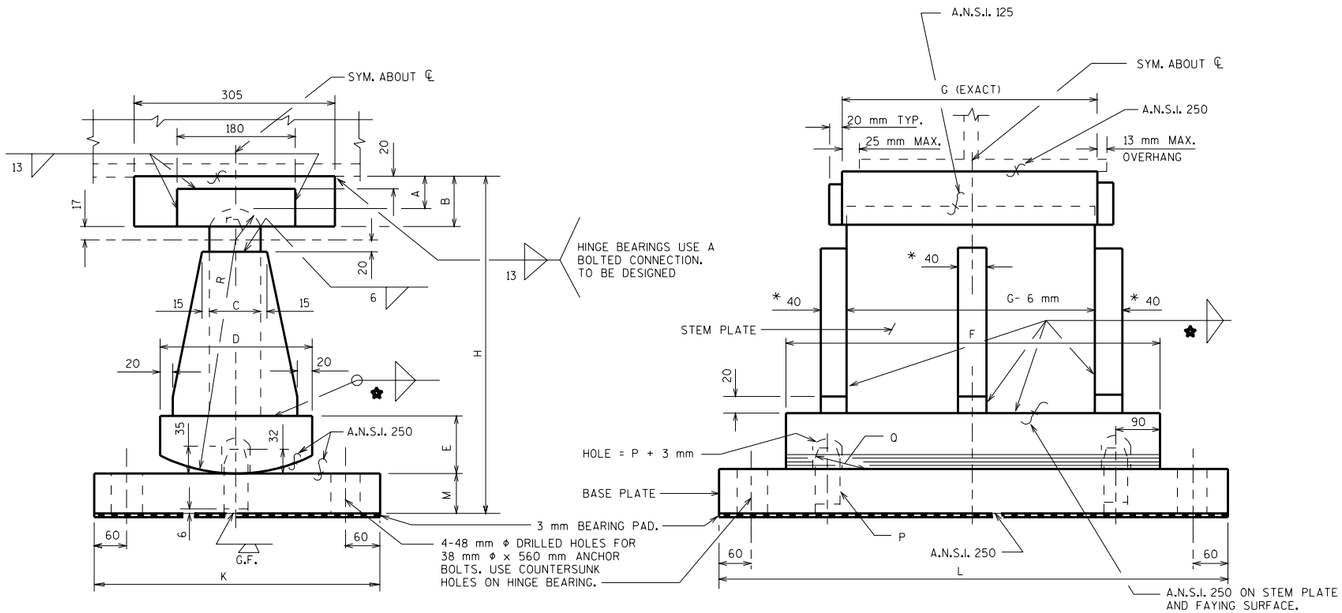

ROCKER

GENERAL 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 "EXPANSION BEARING ASSEMBLIES".

ALL MATERIALS FOR BEARINGS INCLUDING SHIMS BUT EXCLUDING PINTLES, ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO A.S.T.M. SPECIFICATION TYPE A709M GRADE 345W STEEL.

PINTLES SHALL CONFORM TO A.S.T.M. SPECIFICATION TYPE A449 ⬢ STEEL. PINTLES SHALL BE MACHINED TO A DRIVING FIT.

ALL ANCHOR BOLTS, NUTS, AND WASHERS SHALL CONFORM TO A.S.T.M. SPECIFICATION TYPE A709M GRADE 250 ⬢ STEEL. ANCHOR BOLTS SHALL BE THREADED 75 mm. PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. PROJECT ANCHOR BOLTS "M" PLATE THICKNESS + 60 mm 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 150 mm OF ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AS REQUIRED BY ASTM DESIGNATION A153, CLASS C OR B633.

ALL DIMENSIONS ARE IN MILLIMETERS.

✱ 1780 kN ≤ REACTION < 4450 kN. USE 16 mm WELD.
4450 kN ≤ REACTION ≤ 6670 kN. USE 19 mm WELD.

* FOR REACTION ≥ 4450 kN USE 50 mm STIFFENERS.

TABLE OF DIMENSIONS

REACTION (kN)	A	B	C	D	E	G VALUES												H	K	M	R	r		PINTLE	
						G=485		G=535		G=585		G=635		G=685		G=735						STEM	PLATE	P DIA.	Q
						F	L	F	L	F	L	F	L	F	L	F	L								
1780-2224	50	78	80	355	77	610	890	660	890	710	915	760	965	—	—	—	—	502	460	77	330	45	45.4	50	90
2225-2669	50	78	80	355	77	635	1015	660	1015	710	1015	760	1015	—	—	—	—	527	485	77	355	45	45.4	50	90
2670-3114	50	78	80	355	77	—	—	685	1120	710	1120	760	1120	815	1120	—	—	552	510	77	380	45	45.4	50	90
3115-3559	56	88	90	405	87	—	—	—	—	760	1170	760	1170	815	1170	865	1170	597	560	87	405	49	49.4	50	90
3560-3999	56	88	90	405	87	—	—	—	—	790	1195	785	1195	815	1195	865	1195	622	610	87	430	49	49.4	50	90
4000-4449	56	88	90	405	87	—	—	—	—	890	1220	890	1220	890	1220	890	1220	647	660	87	455	49	49.4	50	90
4450-4889	62	98	100	455	97	—	—	—	—	—	—	940	1245	940	1245	940	1245	697	710	97	485	53	53.4	65	95
4890-5339	62	98	100	455	97	—	—	—	—	—	—	990	1270	990	1270	990	1270	722	765	97	510	53	53.4	65	95
5340-5779	62	98	100	455	97	—	—	—	—	—	—	—	—	1040	1320	1040	1320	747	790	97	535	53	53.4	65	95
5780-6224	62	98	100	455	97	—	—	—	—	—	—	—	—	1090	1395	1090	1395	772	815	97	560	53	53.4	65	95
6225-6670	62	98	100	455	97	—	—	—	—	—	—	—	—	1145	1450	1145	1450	797	840	97	585	53	53.4	65	95
						G=355 mm				G=380 mm				G= 405 mm											
0-1330	50	78	80	305	67	480	685			505	710			530	735			442	410	67	280	45	45.4	50	90

ROCKER SETTING DATA

TEMPERATURE TIME OF SETTING - ° C	PIER	PIER	PIER	PIER
50				
35				
25				
15				
5				
-5				
-15				
-30				

(+) (-) VERTICAL

ROCKER BEARING SHALL BE SET VERTICAL AT 7° C.

ROCKER BEARING SHALL BE USED WITH A MINIMUM FRICTION VALUE OF 2% AND A MAXIMUM FRICTION VALUE OF 4%.

MAXIMUM MOVEMENT FROM 7° C = (D - 25 mm)/2 BUT ACTUAL MOVEMENT NOT TO EXCEED R/3.

⬢ OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ROCKER BEARING
TYPE "B" - STEEL GIRDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DEVELOPMENT SECTION

APPROVED: _____ DATE: 1/99

METRIC STANDARD 27.3