



	BOLT	POST	A	B	E	F	R	S	T
FPP31	FBX12b	PWF11	2½ [60]	⅞ [11]	14½ [368]	3¼ [92]	¼ [7]	⅝ [10]	⅝ [10]
FPP32	FBX16b	PWF12	4 [100]	1¼ [22]	14½ [368]	3¼ [92]	⅝ [9]	1¼ [20]	⅝ [10]
FPP33	FBX20b	PWF13	6½ [165]	1½ [38]	16½ [420]	4⅞ [105]	⅞ [11]	1⅝ [24]	½ [12]
FPP34	FBX25b	PWF14	8 [204]	1¼ [32]	18½ [472]	4¼ [118]	½ [14]	1¼ [28]	1¼ [16]
FPP35	FBX25b	PWF15	10 [254]	2¼ [57]	22 [560]	5½ [140]	½ [14]	1⅝ [34]	1¼ [20]

PERFORATED FUSE PLATE

FPP31-35

SHEET NO.

DATE:

1 OF 2

2006

SPECIFICATION

Perforated fuse plates shall be manufactured using AASHTO M183M (ASTM A36M) steel plate. After all cutting and drilling is complete the plate shall be zinc coated according to ASSHTO M111 (ASTM A123). Some recent research has indicated that using AASHTO M223M (ASTM A572) Grade 345 steel plate can improve the connection strength for wind loading without adversely affecting the safety performance of the fuse plate and hinge.

INTENDED USE

Perforated fuse plates are used in several slipbase sign support designs that use structural wideflange shapes as sign posts. The fuse plate is used to connect a sign post to the upper sign post. The connection is located at least 2100 mm above the ground and just below the sign. During an impact the perforated fuse plate tears through the holes on the impact (tension) side of the sign post. The compression flange of the sign deforms plastically allowing the sign post to rotate up and let the vehicle pass underneath. The nuts (lubricated) on the bolts connecting the fuse plate to the wide flange shape must be tightened to the appropriate torque to achieve proper breakaway performance.

Dimensional tolerances not shown or implied are intended to be those consistent with the proper functioning of the part, including its appearance and accepted manufacturing practices.

REFERENCE

J. D. Reid, "Development of a Modified Tension Fuse Plate for Dual Support Breakaway Signs," Transportation Research Record, Transportation Research Board, Washington, D.C., 1996.

PERFORATED FUSE PLATE

FPP31a-35b

SHEET NO.

DATE

2 of 2