



AMERICAN MINING CONGRESS TURNOUT DATA

Turnout Data for 36-in. Gage (continued) Heavy Rail – 70-lb to 100-lb rail, inclusive

American Mining Congress Standards

Frog						Switch					Actual Lead	Closure Rails			
No.	Angle	Type	Rail Weight	Point	Actual Toe Length	Length	Angle	Point	Heel Spread	Vertex Distance		Curved			Straight
												Radius	MO	Length	Length
3	18°55'29"	Cast	70 to 80	1/2"	9-1/2"	7'6"	3°35'00"	3/8"	6"	6"	19'1"	39'0"	4-3/4"	11'1-7/16"	10'9-1/2"
		Cast	85 to 100	1/2"	11"	7'6"	3°44'35"	3/8"	6-1/4"	6"	18'10-5/8"	37'7-3/16"	4-5/8"	10'9-9/16"	10'5-5/8"
		RBF	70 to 80	1/2"	31"	7'6"	3°35'00"	3/8"	6"	6"	19'1"	39'0"	3-3/8"	9'3-15/16"	9' 0"
		RBF	85 to 100	1/2"	31"	7'6"	3°44'35"	3/8"	6-1/4"	6"	18'10-5/8"	37'7-3/16"	3-3/8"	9'1-9/16"	8'9-5/8"
4	14°15'00"	Cast	70 to 80	1/2"	12-9/16"	7'6"	3°35'00"	3/8"	6"	6"	22'5"	73'0"	4-1/8"	14'1-1/2"	13'10-1/2"
		Cast	85 to 100	1/2"	14-5/8"	7'6"	3°44'35"	3/8"	6-1/4"	6"	22'2-1/2"	70'4-5/8"	4"	13'8-7/8"	13'5-7/8"
		RBF	70 to 80	1/2"	40"	7'6"	3°35'00"	3/8"	6"	6"	22'5"	73'0"	2-7/8"	11'10"	11'7"
		RBF	85 to 100	1/2"	40"	7'6"	3°44'35"	3/8"	6-1/4"	6"	22'2-1/2"	70'4-5/8"	2-7/8"	11'7-1/2"	11' 4-1/2"
5	11°25'16"	Cast	70 to 80	1/2"	15-11/16"	10'0"	2°41'12"	3/8"	6"	8"	29'0"	114' 0"	4-1/4"	17'10-11/16"	17'8-5/16"
		Cast	85 to 100	1/2"	18-3/16"	10'0"	2°48'23"	3/8"	6-1/4"	8"	28'9-1/8"	110'6"	4-1/8"	17'5-3/8"	17'2-15/16"
		RBF	70 to 80	1/2"	42-1/2"	10'0"	2°41'12"	3/8"	6"	8"	29'0"	114'0"	3-1/4"	15'7-7/8"	15'5-1/2"
		RBF	85 to 100	1/2"	42-1/2"	10'0"	2°48'23"	3/8"	6-1/4"	8"	28'9-1/8"	110'6"	3-1/4"	15'5-1/16"	15'2-5/8"
6	9°31'38"	Cast	70 to 80	1/2"	18-13/16"	10'0"	2°41'12"	3/8"	6"	8"	32'2"	169'0"	3-13/16"	20'9-3/16"	20'7-3/16"
		Cast	85 to 100	1/2"	21-13/16"	10'0"	2°48'23"	3/8"	6-1/4"	8"	31'10-1/2"	165' 4-3/16"	3-3/4"	20'2-3/4"	20'0-11/16"
		RBF	70 to 80	1/2"	45"	10'0"	2°41'12"	3/8"	6"	8"	32'2"	169'0"	3-1/16"	18'7-1/16"	18'5"
		RBF	85 to 100	1/2"	45"	10'0"	2°48'23"	3/8"	6-1/4"	8"	31'10-1/2"	165'4-3/16"	3-1/16"	18'3-9/16"	18'1-1/2"
7	8°10'16"	Cast	70 to 80	1/2"	21-15/16"	10'0"	2°41'12"	3/8"	6"	8"	35'4-11/16"	238'11-11/16"	3-9/16"	23'8-1/2"	23'6-3/4"
		Cast	85 to 100	1/2"	25-7/16"	10'0"	2°48'23"	3/8"	6-1/4"	8"	34'9-3/8"	234'7-15/16"	3-5/16"	22'9-11/16"	22'7-15/16"
		RBF	70 to 80	1/2"	56-1/2"	10'0"	2°41'12"	3/8"	6"	8"	35'4-11/16"	238'11-11/16"	2-3/4"	20'9-15/16"	20'8-3/16"
		RBF	85 to 100	1/2"	56-1/2"	10'0"	2°48'23"	3/8"	6-1/4"	8"	34'9-3/8"	234'7-15/16"	2-5/8"	20'2-5/8"	20'0-7/8"
8	7°09'10"	Cast	70 to 80	1/2"	25-1/16"	15'0"	1°47'27"	3/8"	6"	12"	45'8-7/8"	298'8-11/16"	4-3/16"	28'9-1/2"	28'7-13/16"
		Cast	85 to 100	1/2"	29-1/16"	15'0"	1°52'14"	3/8"	6-1/4"	12"	45'0-3/8"	291'9-1/4"	3-15/16"	27'8-13/16"	27'7-5/16"
		RBF	70 to 80	1/2"	61"	15'0"	1°47'27"	3/8"	6"	12"	45'8-7/8"	298'8-11/16"	3-3/8"	25'9-11/16"	25'7-7/8"
		RBF	85 to 100	1/2"	61"	15'0"	1°52'14"	3/8"	6-1/4"	12"	45'0-3/8"	291'9-1/4"	3-1/4"	25'0-7/8"	24'11-3/8"

Note: RBF denotes "Rigid Bolted Frog."

Turnout Data for 42-in. Gage

The American Mining Congress has adopted 42-in. gage as the standard for mines. This gage should be used when it is possible to do so.

Light Rail – 20-lb to 60-lb ASCE rail, inclusive

American Mining Congress Standards

Frog						Switch					Actual Lead	Closure Rails			
No.	Angle	Type	Rail Weight	Point	Actual Toe Length	Length	Angle	Point	Heel Spread	Vertex Distance		Curved			Straight
												Radius	MO	Length	Length
2	28°04'21"	Cast	20 to 40	1/4"	6-11/16"	3'6"	6°19'20"	3/8"	5"	4"	12'7"	22'0"	5-5/8"	9'1-1/2"	8'6-1/4"
		WPF	20 to 30	1/4"	17"	3'6"	6°19'20"	3/8"	5"	4"	12'7"	22'0"	4-3/4"	8'3-1/4"	7'8"
		WPF	40	3/8"	20"	3'6"	6°19'20"	3/8"	5"	4"	12'7"	22'0"	4-1/2"	8'0-1/4"	7'5"
2-1/2	22°37'12"	Cast	20 to 40	1/4"	8-1/4"	5'0"	4°25'15"	3/8"	5"	5"	16'11"	35'0"	5-13/16"	11'8-1/4"	11'2-3/4"
		WPF	20 to 30	1/4"	16-1/2"	5'0"	4°25'15"	3/8"	5"	5"	16'11"	35'0"	5-1/4"	10'11-7/8"	10'6-1/2"
		WPF	40	3/8"	20"	5'0"	4°25'15"	3/8"	5"	5"	16'11"	35'0"	4-7/8"	10'8-1/2"	10'3"
3	18°55'29"	Cast	20 to 60	1/4"	8-3/8"	5'0"	4°25'15"	3/8"	5"	5"	19'0"	52'0"	5-1/2"	13'8-1/2"	13'3-1/2"
		WPF	20 to 30	1/4"	16-1/2"	5'0"	4°25'15"	3/8"	5"	5"	19'0"	52'0"	5"	13'0-1/4"	12'7-1/2"
		WPF	40 to 60	3/8"	24"	5'0"	4°25'15"	3/8"	5"	5"	19'0"	52'0"	4-11/16"	12'5"	12'0"
3	18°55'29"	Cast	20 to 60	1/4"	8-3/8"	6'0"	3°40'59"	3/8"	5"	6"	20'6"	51'0"	5-7/8"	14'2-3/4"	13'9-1/2"
		WPF	20 to 30	1/4"	16-1/2"	6'0"	3°40'59"	3/8"	5"	6"	20'6"	51'0"	5-3/8"	13'6"	13'1-1/2"
		WPF	40 to 60	3/8"	24"	6'0"	3°40'59"	3/8"	5"	6"	20'6"	51'0"	4-7/8"	12'10-3/4"	12'6"
4	14°15'00"	Cast	20 to 60	1/4"	11-1/16"	5'0"	4°25'15"	3/8"	5"	5"	23'0"	96'0"	4-5/8"	17'4-1/2"	17'1"
		WPF	40 to 60	3/8"	27"	5'0"	4°25'15"	3/8"	5"	5"	23'0"	96'0"	4-1/16"	16'0-3/4"	15'9"
4	14°15'00"	Cast	40 to 60	1/4"	11-1/16"	6'0"	3°40'59"	3/8"	5"	6"	24'7"	94'0"	5-1/8"	17'11-1/4"	17'7-3/4"
		WPF	40 to 60	3/8"	27"	6'0"	3°40'59"	3/8"	5"	6"	24'7"	94'0"	4-7/16"	16'7-1/2"	16'4"
4	14°15'00"	Cast	40 to 60	1/4"	11-1/16"	7'6"	2°56'44"	3/8"	5"	8"	26'10"	91'0"	5-3/4"	18'8-1/4"	18'4-3/4"
		WPF	40 to 60	3/8"	27"	7'6"	2°56'44"	3/8"	5"	8"	26'10"	91'0"	5"	17'4-1/2"	17'1"
5	11°25'16"	Cast	40 to 60	1/4"	13-13/16"	7'6"	2°56'44"	3/8"	5"	8"	31'0"	148'0"	5-3/16"	22'7"	22'4-1/4"
		WPF	40 to 60	3/8"	30"	7'6"	2°56'44"	3/8"	5"	8"	31'0"	148'0"	4-11/16"	21'2-3/4"	21'0"
6	9°31'38"	Cast	40 to 60	1/4"	16-9/16"	7'6"	2°56'44"	3/8"	5"	8"	34'9"	220'0"	4-5/8"	26'0-3/4"	25'10-1/2"
		WPF	40 to 60	3/8"	36"	7'6"	2°56'44"	3/8"	5"	8"	34'9"	220'0"	4-1/8"	24'5-1/2"	24'3"
6	9°31'38"	Cast	40 to 60	1/4"	16-9/16"	10'0"	2°12'32"	3/8"	5"	10"	38'10"	210'0"	5-7/16"	27'7-3/4"	27'5-1/2"
		WPF	40 to 60	3/8"	36"	10'0"	2°12'32"	3/8"	5"	10"	38'10"	210'0"	4-3/4"	26'0-1/4"	25'10"

Note: WPF denotes "Welded Plate Frog."