

LOCOMOTIVE **8578** DATE **8-12-11**

L#	Start Readings				Has Shims		L#	END READING				Has Shims		OLD GAUGE
	Flange Height	Flange Thickness	Rim Thickness	Witness Grove	YES	NO		Flange Height	Flange Thickness	Rim Thickness	Witness Grove	YES	NO	
L#1	0-17	0-0	28				L#1							FLANGE THICKNESS MEASUREMENT 0-on 0 - 1-17/64 1-on 0 - 1-15/64 2-on 0 - 1-7/32 3-on 0 - 1-5/32 4-on 0 - 1-7/64 5-on 0 - 1-3/64 6-on 0 - 1-1/32 7-on 0 - 5/64 8-on 0 - 15/16
L#2	0-19	0-0	28				L#2							
L#3	0-21	0-0	43				L#3							
L#4	0-18	0-0	26				L#4							
L#5							L#5							
L#6							L#6							
R#1	0-18	0-0	27				R#1							OLD GAUGE FLANGE HEIGHT MEASUREMENT 0-on 0 - 1 0-on 1 - 1-1/16 0-on 2 - 1-1/8 0-on 3 - 1-3/16 0-on 4 - 1-1/4 0-on 5 - 1-5/16 0-on 6 - 1-3/8 2-on 6 - 1-13/32 4-on 5 - 1-7/16 6-on 5 - 1-3/8
R#2	0-20	0-0	28				R#2							
R#3	0-21	0-0	44				R#3							
R#4	0-18	0-0	26				R#4							
R#5							R#5							
R#6							R#6							

WEAR LIMITS FOR ROAD & SWITCH LOCOMOTIVES - MINIMUM DAILY REQUIREMENTS

FRA 1 1/2" MMA 1 7/16" Flange Height
 FRA 7/8" MMA 15/16" Flange Thickness
 FRA 1" MMA 1 1/16" Rim Thickness
 FRA 5/16" MMA 1/4" Tread Wear

FLANGE HEIGHT MEASUREMENT

NEW GAUGE
0-on 17 - 1-1/16"
0-on 18 - 1-1/8"
0-on 19 - 1-3/16"
0-on 20 - 1-1/4"
0-on 21 - 1-5/16"
0-on 22 - 1-3/8"
2-on 22 - 1-13/32"
4-on 22 - 1-7/16"
6-on 22 - 1-5/32"
8-on 22 - 1-1/2"

WEAR LIMITS - ROAD & SWITCH LOCOS - MIN. 92 DAY REQ

WEAR LIMITS - PASSENGER LOCOS - MIN 92 DAY REQ

FLANGE HEIGHT	Flange THICKNESS	Rim THICKNESS	Tread WEAR	Flange HEIGHT	Flange THICKNESS	Rim THICKNESS	Tread WEAR
FRA 1 1/2"	FRA 7/8"	FRA 1"	FRA 5/16"	FRA 1 1/2"	FRA 7/8"	FRA 1"	FRA 5/16"
MMA 1 7/16"	MMA 1 1/32"	MMA 1 1/8"	MMA 1/4"	MMA 1 7/16"	MMA 1"	MMA 1 1/4"	MMA 1/4"

CONVERSION CHART FOR WHEEL DIAMETER

8= 37"	15= 37 7/8"	22= 38 3/4"	29= 39 5/8"	36= 40 1/2"
9= 37 1/8"	16= 38"	23= 38 7/8"	30= 39 1/4"	37= 40 5/8"
10= 37 1/4"	17= 38 1/8"	24= 39"	31= 39 7/8"	38= 40 3/4"
11= 37 3/8"	18= 38 1/4"	25= 39 1/8"	32= 40"	39= 40 7/8"
12= 37 1/2"	19= 38 3/8"	26= 39 1/2"	33= 40 1/8"	40= 41"
13= 37 5/8"	20= 38 1/2"	27= 39 3/8"	34= 40 1/4"	41= 41 1/8"
14= 37 3/4"	21= 38 5/8"	28= 39 1/2"	35= 40 3/8"	42= 41 1/4"

FLANGE THICKNESS MEASUREMENT

NEW GAUGE
0-on 9 - 1-17/64"
1-on 0 - 1-15/64"
2-on 0 - 1-7/32"
3-on 0 - 1-5/32"
4-on 0 - 1-7/64"
5-on 0 - 1-3/64"
6-on 0 - 1-1/32"
7-on 0 - 5/64"
8-on 0 - 15/16"

LOCOMOTIVE RAIL CLEARANCE

COUPLER HEIGHT	FRONT	PILOT HEIGHT	FRONT	HEIGHT OF HORIZONTAL END HANDHOLD OR UNCOUPLING LEVER IF USED AS HORIZONTAL HANDHOLD	LOCO RAIL CLEARANCE
FRA	MAX 34 1/2" MIN 31 1/2"	32 1/2"	FRA MAX 6" MIN 3"	4 1/4"	FRA MIN 2 1/2"
MMA	MAX 34 1/2" MIN 32 1/2"	34"	MMA MAX 6" MIN 3 1/2"	5"	MMA MIN 3"

WHEEL DIAMETER MEASUREMENTS ARE TAKEN FROM THE TOP OF THE WITNESS GROOVE. 40" DIAMETER WHEELS WITNESS GROOVE = 36"
 42" DIAMETER WHEEL WITNESS GROOVE = 38"

WHEEL MATCHING STANDARDS FOR 6 AXLE LOCOMOTIVES (FRA & MMA STANDARDS ARE THE SAME)

- 1/16" IS THE MAXIMUM VARIATION ALLOWED, IN WHEEL DIAMETER, BETWEEN ANY 2 WHEELS IN THE SAME TRUCK WITHOUT SHIMS.
- 1/32" IS THE MAXIMUM VARIATION ALLOWED, IN WHEEL DIAMETER, BETWEEN ANY 2 WHEELS IN THE SAME TRUCK WITH SHIMS APPLIED.
- 1/4" IS THE MAXIMUM VARIATION ALLOWED, IN WHEEL DIAMETER, BETWEEN ANY 2 WHEELS ON DIFFERENT TRUCKS.

NOTE:
 WHEN FIGURING THE DIFFERENCE IN WHEEL DIAMETER, TO DETERMINE IF SHIMS ARE REQUIRED, YOU MUST USE THE AVERAGE WHEEL DIAMETER FIGURES.
 REMEMBER THIS RULE
 0 TO 5 DIAMETER DIFFERENCE NO SHIMS REQUIRED 6 TO 10 DIAMETER DIFFERENCE ADD APPROPRIATE SHIMS TO BOTH BOYES ON BOTH SIDES OVER 10 IN DIAMETER DIFFERENCE REQUIRES WHEEL CHANGE OR TRUED NOTE: ON END LOCOMOTIVES USE ONLY ONE 1/4" SHIM END PART NUMBER 845981 SHELLED TREAD AND FLAT SPOTS MUST BE TRUED OR CHANGED WHEN FOUND ON PERIODIC OR UNSCHEDULED MAINTENANCE KCS CONDEMNING LIMITS FOR SHELLED TREAD ON A SERVICE TRACK
 • ONE SHELLED SPOT 1" OR GREATER IN LENGTH • ONE SHELLED SPOT WITH A DEPTH OF 1/4" OR MORE.

EMPLOYEES SIGNATURE

M. Corley

SUPERVISORS SIGNATURE