

Technical Support - Linear Current Collection

Improving Linear Current Collection with Carbon

To use the chart, first select the symptom displayed by your system. Trace the appropriate column down the chart. Stop at each line containing a dot. The wording on the left of the line indicates a probable cause and the wording on the right a possible remedy. Further details can be found by referring to the relevant numbered or lettered notes in [Symptoms of Common Difficulties in Service](#).

SYMPTOMS															
		M	L	K	J	H	G	F	E	D	C	B	A	POSSIBLE REMEDY	
A	Burnt carbon surface													• Reduce current loading	1
B	Uneven wear along strip length													• Increase force if possible	2
C	Uneven wear strip to strip													Check overhead	3
D	Grooving													Check current path	4
E	Edge chipping													• Check current loading	5
F	Cracked carbons													Check stagger	6
G	Sparking damage on sheath													Check mechanism	7
H	Sheath overheating													Type of suspension	8
J	Short life													Check setting	9
K	Loose carbons													Correct angle	10
L	Broken carbons													Reduce mass	11
M	Missing carbons													Change to carbon	12
1	Current overload	•		•	•	•	•		•					• Reduce current loading	1
2	Low contact force				•	•	•	•	•	•				• Increase force if possible	2
3	Poor wire condition			•	•	•	•	•	•	•	•			Check overhead	3
4	Poor current path				•	•	•				•	•	•	Check current path	4
5	Wrong material			•	•		•	•						• Check current loading	5
6	Poor wire stagger			•		•				•		•		Check stagger	6
7	Pantograph condition			•	•	•	•			•	•	•		Check mechanism	7
8	Wire suspension			•	•	•	•	•	•			•		Type of suspension	8
9	Sectional insulator setting			•	•	•	•	•	•	•		•		Check setting	9
10	Pivot angle				•							•		Correct angle	10
11	Head mass			•	•	•	•	•	•	•	•			Reduce mass	11
12	Mixed materials				•	•				•	•	•		Change to carbon	12
13	Mixed running				•		•							Fit all one grade	13
14	Weather conditions			•	•	•	•	•	•					• Check weather pattern	14
15	Badly fitted strips			•	•	•	•	•	•	•		•		Check fitting	15
16	Carbon section too small			•	•									• Increase size carbon section	16
17	Carbon section too big				•									Reduce size carbon section	17
18	High contact force			•	•			•	•					Reduce force if possible	18
19	Panto speed			•	•	•	•	•	•	•				• Check panto aerodynamics	19