Exhibit AJ

QSI MATERIALS INCORPORATED INTO JMRI SOFTWARE

QSI Published Manual
dated 16 February 2005, page 101
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5.8.3 CV 56.10: Speed Step to Scale MPH Scale Factor (PI = 10)

Default Value: 64

CV 56.10: Speed Step to Scale MPH Scale Factor Register

Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
D7	D6	D5	D4	D3	D2	D1	D0

- This byte specifies a Scale Factor used with **Speed Control** to change the amount that smph speed changes as a function of speed steps. The value of this byte is interpreted as N/64, which means N = 64 is equivalent to a Scale Factor of 1.0. Some examples of Speed Control with different scale factors are:

CV 56.10	Scale Factor	Slowest possible speed at Speed Step 2	Fastest possible speed at Speed Step 127.
32 (0x20)	0.5	0.5 smph	63 smph
64 (0x40)	1.0	1 smph	126 smph
128 (0x80)	2.0	2 smph	252 smph

Change the Scale Factor when you want a more useful throttle range for an engine under Speed Control. This Scale Factor will have no effect if the engine is under Throttle Control or Regulated Throttle Control.

[112] Refer to CV 3, CV 4, CV 23 and CV 24 for Inertia Settings.

Jacobsen
Court Doc 237-31, Exhibit AD, page 15
October 2008

```
<ivariable label="Speed Step to Scale MPH Scale Factor" CVname="56.10"
           comment="QSI" item="CV56.10">
  <indexedVal max="128"/> </ivariable>
```