

MODEL SIGNAL ENGINEERING

**MSE**

Part of WIZARD MODELS

PO BOX 79 BARTON upon HUMBER DN18 5XY  
01652 636885 www.wizardmodels.co.uk

SCALE	CODE	
3mm	ST3	

## McKENZIE & HOLLAND

Standard, somersault and slotted post signal arms for:  
 HR, GNR, NER, GER, GCR, NSR, FR, TVR, Barry, Rhymney, B&MR, Cambrian, NCC and many Colonial lines

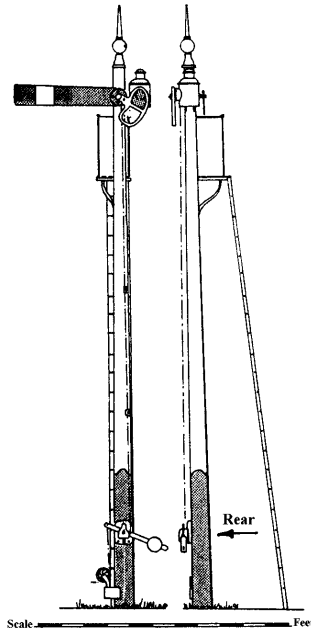
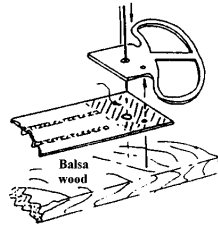


### Part numbers and quantities on fret:

1. GER 5'11" tapered arms (2)
2. NER 5'6" slotted post arms (1d, 4h)
3. GCR 4'6" main arms (1d, 2h)
4. GCR/NER subsidiary arms (4)
5. GNR etc somersault arms (1d, 6h)
6. Motion plates for 5 (3)
7. Spectacle plates for 1, 2, 5 (7)
8. Back blinder for 1 (1)
9. Spectacle plates for 3 (5)
10. Spectacle plates for 4 (4)
11. Back blinders for 2, 3, 5 (5)
12. J-brackets for 5 (7)
13. GNR etc subsidiary arms (2)
14. GCR goods loop ring (1)

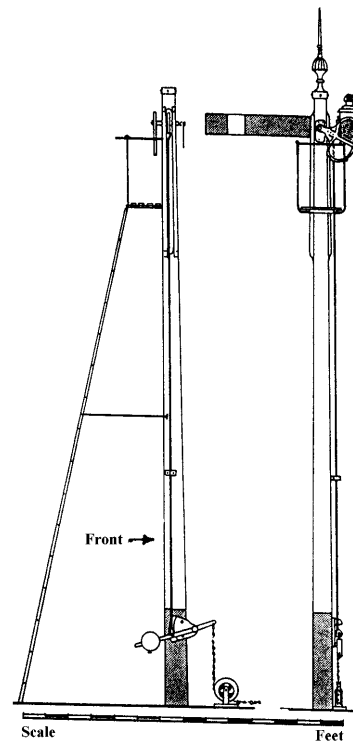
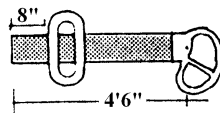
### Jointing of arm and spectacle

Insert a nickel silver wire through both parts into a balsa block. Tin well and solder together. Use a blackened pin through the pull rod hole to avoid blocking it with solder. Clean out hole so pull rod is free to move. Note that the angle of the spectacle plate relative to the arm varied between companies.

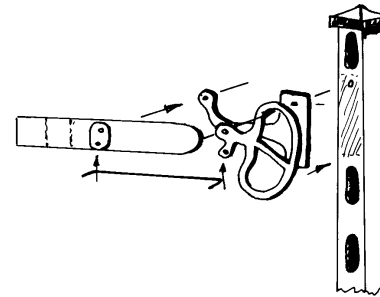


Standard stop signal as supplied to many companies with variations in lamp, finial etc. Drawn to 3mm/ft scale. Study suitable photographs of your modelled line.

GCR shunt arm dimensions:

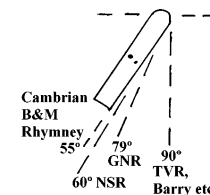


Typical NER slotted post signal. Note that the ladder is to the front. Drawn to 3mm/ft scale.

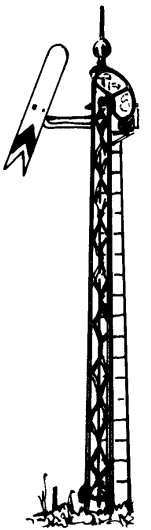


Somersault arm motion assembly, shown with a concrete post.

"Off" position angles for various companies' somersault arms



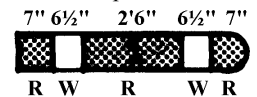
Typical GNR lattice post somersault signal



### Painting

Some companies originally painted their posts ochre or buff with darker purple brown ironwork. This later gave way to all white, with fittings and the bottom 4' of the post painted black.

Stop arms were always red with a white vertical stripe about 10" in from the outer end. Various Welsh companies used two white stripes:



Before the mid-1920s, distant arms were painted red, with a vertical white stripe, just like stop arms. Later, they had a white chevron on red, and then yellow with a black chevron. The reverse of all arms was always white with a black band repeating the front band/chevron.

Stop arm spectacles were generally red for the top aperture and blue-green for the lower one. Red distant arms were originally red for the top and white (later green) below. Yellow distants had amber in the top aperture and green in the lower one.

Produced in association with  
**The Three Millimetre Society**

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