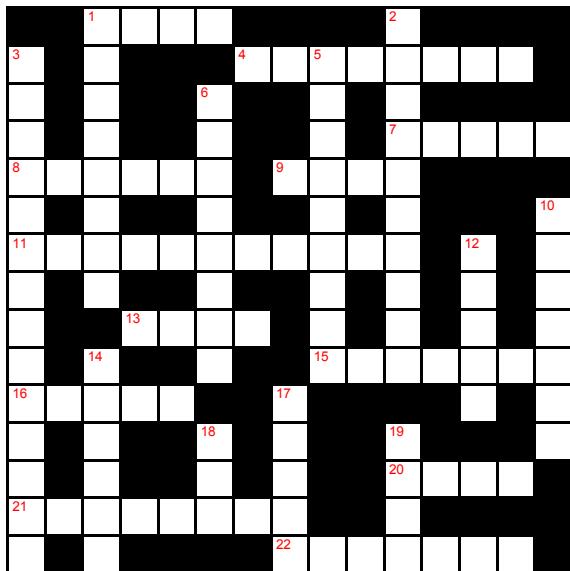


# Railways\_15x15\_2008-10-18

B.B. Huria



## Across

- 1 A third rail current collection device mounted on the bogie of a direct current electric train. (4)
- 4 A passenger car for day travel; there is no sleeping berth. (5,3)
- 7 ARC stands for automatic \_\_\_\_ control. (5)
- 8 The signalling term meaning the indication given to the driver of an approaching train by a signal. (6)
- 9 A flexible connection provided between vehicles for compressed air, vacuum or steam. (4)
- 11 A drive shaft with flexible couplings provided between a motor and an axle to allow for the movements of the

axle relative to the motor. (6,5)

- 13 Electrically or pneumatically operated warning device provided for a driver to sound at will. (4)
- 15 ARC stands for automatic train \_\_\_\_.
- 16 To marshal vehicles in a given order to form a train. (5)
- 20 The circular shaft connecting two wheels to form a 'wheelset'. (4)
- 21 EMU stands for \_\_\_\_ Multiple Unit. (8)
- 22 The sideways motion of a bogie caused by irregularities in the track or wheels. Also referred to as "boxing". (7)

## Down

- 1 The transverse members of trackwork, made of wood, concrete or sometimes steel, which are used to secure the rails at the correct gauge. (8)
- 2 ATP stands for automatic train \_\_\_\_.
- 3 The economical service speed at which the tractive effort of the train equals the train resistance and no further acceleration takes place. (9,5)
- 5 ARC stands for \_\_\_\_ train control. (9)
- 6 The overhead power line support system. (8)
- 10 The safe braking distance beyond a signal provided in case the train fails to stop at the signal when it is showing a danger aspect. (7)
- 12 The term used to denote an urban railway, often partly or wholly underground. (5)
- 14 A cushioning device mounted on the extreme ends of vehicles to absorb shocks arising during coupling and motion. (6)
- 17 A term for passenger carrying vehicle. Also known as a carriage. (5)
- 18 US term for a railway carrying vehicle. (3)
- 19 A slope in the turn of a road or track; the outside is higher than the inside in order to reduce the effects of centrifugal force. (4)