

Spanish train crash focus on safety systems

Investigators probing the Spanish rail disaster are trying to determine whether faulty safety systems were the cause. The accident occurred just after the point at which one high-speed safety system gives way to another

Santiago de Compostela

FRANCE

SPAIN

Madrid

Cathedral
SANTIAGO DE COMPOSTELA

1km
0.6 miles

To Ferrol

Train station
Tunnel

Autoestrada
do Atlantico

From
Madrid

18:42GMT, July 24: Train's speed estimated at 140km/h to 190km/h as it enters bend with 80km/h speed limit

Motor unit: Runs on electrified track

Diesel unit: Powers train on non-electrified track



Alvia S730 series Dual train can run on different gauge tracks

High-speed European track

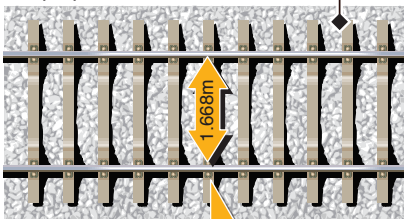
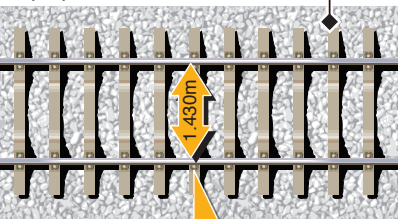
Gauge: **1,430mm wide**

Top speed for S730: **250km/h**

Slower Iberian track

Gauge: **1,668mm wide**

Top speed for S730: **220km/h**



ERTMS: On high-speed lines train uses **European Rail Traffic Management System**. Continuous monitoring via radio automatically slows down train if going too fast

ASFA: On slower lines older system relies on series of track-side beacons to warn driver if a train is moving too fast. ASFA does not automatically slow train down