

# SYSTEMS FACTFILE



## No. 54 Lille, France

Rebuilding Lille's historic tramway followed the introduction of the world's first fully automatic metro system. Neil Pulling reports from the heart of French Flanders.

WORDS AND PICTURES BY NEIL PULLING



**T**he main city of Nord-Pas de Calais region, Lille is France's fourth largest urban area (Lille Métropole Communauté Urbaine) with a population of 1 06 885 in 2007. Boosting that number are adjoining communities across the border in Belgium.

In a select group with the lines incorporated in today's St Etienne and Marseille tramways, Lille is a system apart from the modern French era launched in 1985 by the Nantes opening. This is not however a remnant of the city network (began 1874, closed by January 1966) but of the inter-urban system, L'Électrique Lille-Roubaix-Tourcoing (ELRT). The ELRT driving force was Lille-born engineer and entrepreneur Alfred Mongy, commemorated with a stop, depot access road and as an informal title (*Le Mongy*) for whole line.

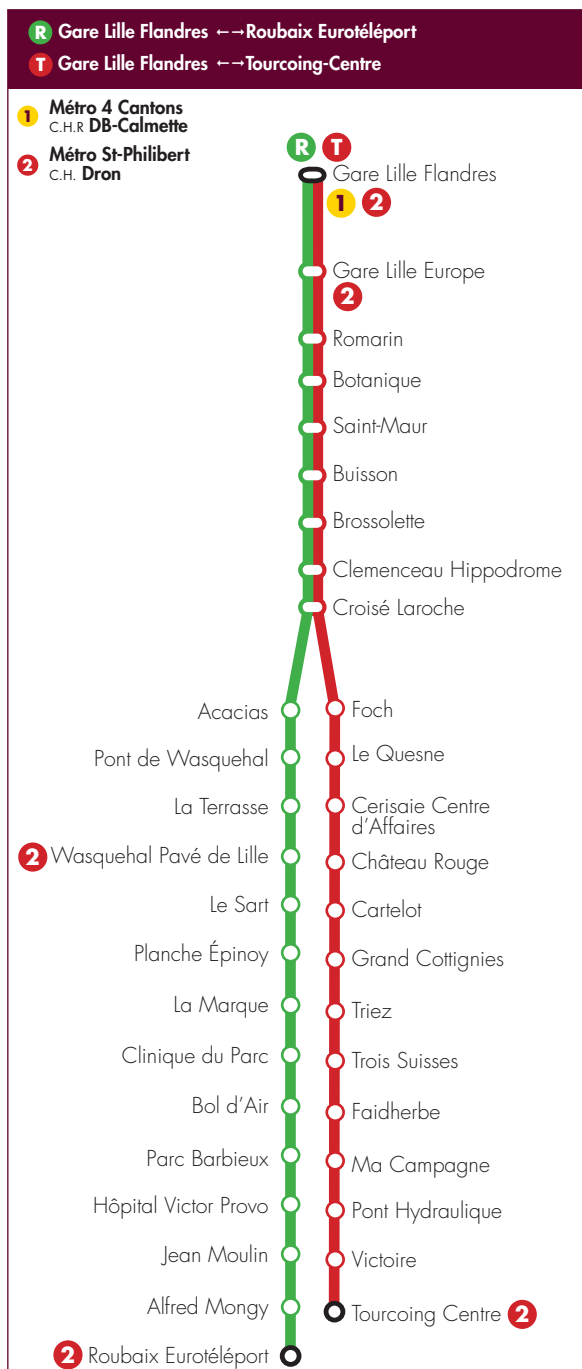
Tram services began in December 1909 over tracks included in the Grand Boulevard scheme, a development

**Above: Tram 07 approaches the north-eastern terminus Roubaix Eurotéléport on 21 February 2011.**

of wide and largely straight thoroughfares headed north from central Lille to the towns of Tourcoing and nearby Roubaix. Over 80 years on, Lille's visionary project – also including cycleways and tree planting – strengthened the case for tram retention, as did the return of trams to other French cities. Rejecting widening the Grand Boulevard by expanding across the tracks, large-scale modernisation began in 1991, with phased re-openings from spring 1994.

It is now part of the Métropole's network branded Transpole, a Keolis subsidiary that began a new seven-year contract in January 2011, which included a commitment to increase tram services by 15%. With just two metro and two tramlines for a 612km<sup>2</sup> area, Transpole also has 42 urban bus lines and a cycle hire operation. Regional buses serve the conurbation which also has stations on the SNCF TER regional rail network.





Above: The junction for the Tourcoing and Roubaix branches is just beyond the Croisé Laroche platforms.

Below: The tram terminus forms part of the city's main transport interchange, Gare Lille Flandres.

Given the years separating their creation, unsurprisingly Lille's tramway differs from the French mainstream. Routing was dictated by the position of the main centres rather than the now common practice of connecting traffic generators like hospitals and universities, a role that Lille's metro would fill. A new power supply at 750V replaced the previous 600V installation, but metre-gauge was retained. The platforms are a relatively short 32 metres, these often staggered either side of the multiple road crossings.

The most striking difference lies in the fleet. By the 1990s rebuild – there had been previous changes – France had resumed tram production with the Alstom *TFS-1* (from 1985 for Nantes) and *TFS-2* (1987 for Grenoble), as-built or modified with part low-floor space. However, Lille chose a four-section fully low-floor tram from Italian company Breda. Angular styling was by Pininfarina, later used by successor AnsaldoBreda for the *Sirio*.

Rebuilding *Le Mongy* took account of other transport changes, notably Lille's key position on the LGV high-speed rail network. A large area around the new Lille Europe station was radically redeveloped, which required modified tramway access on the underground section. Approaches to the northern termini were also changed.

Services are designated T (Lille-Tourcoing, 13km, eight miles) and R (Lille-Roubaix, 12km, 7.5 miles), with panels showing the relevant destination in full; end to end takes about 30 minutes. The two services share track for 4km (2.5 miles) between the underground Lille Flandres terminus platforms, which have separate unloading and boarding areas, and the junction immediately north of Croisé Laroche. Restrictions apply for cycle carriage on trams.

The system is double-track except for a brief section through a narrow street approaching Tourcoing Centre where a recently rebuilt two-platform terminus integrates with the metro. Much bigger in area, Roubaix Eurotéléport interchange is surrounded by a regional shopping centre.



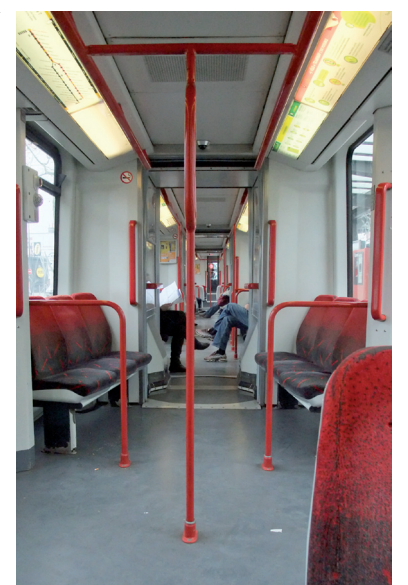
'Rebuilding *Le Mongy* took account of other transport changes, notably Lille's key position on the LGV high-speed rail network'



Above: Rebuilding re-routed track north of Pont Hydraulique, that previously took the bridge (left) into central Tourcoing.

Left: Heading south, tram 19 at Victoire, Tourcoing, on a section added in the 1990s rebuilding.

Right: The trams by Breda of Italy were created specifically for the Lille system.



## NETWORK FACTS

- **Tram opened:** 1874 (1994 in present format)
- **Metro opened:** 1983
- **Lines:** Two tram; two metro
- **Track distance:** Tram 22km; metro 45km
- **Stops:** 36 tram; 60 metro
- **Approximate weekday hours:** 05.30-23.30
- **Tram peak frequency:** 8 minutes (4 minutes Lille-Croisé Laroche)

- **Tramway gauge:** 1 000mm
- **Power supply:** 750V overhead supply (tram); third rail (metro)
- **Tram fleet:** 24 Breda
- **Metro fleet:** 143 two-car Siemens VAL vehicles
- **Local authority:** Lille Métropole Communauté Urbaine
- **Operator:** Transpole

## INFORMATION

- **Transport coordination:** [www.lillemetropole.fr](http://www.lillemetropole.fr)
- **Network:** [www.transpole.fr](http://www.transpole.fr)
- **Civic information:** [www.mairie-lille.fr](http://www.mairie-lille.fr) and [www.lillemetropole.fr](http://www.lillemetropole.fr)
- **Tourist information:** [www.lilletourism.com](http://www.lilletourism.com)



## THE FLEET

Acquired second-hand in the 1980s, rebuilt Düwag trams with stepped access worked into the line's reconstruction phase. Peculiar to the Lille system, they were replaced by the Breda vehicles numbered 01-24.

The articulated four-section 29.6m, 2.4-metre wide vehicles are bi-directional with driver cabs at a raised floor level. The passenger area with 50 seats in mixed configuration is low-floor. Access to Rouges Barres depot, which replaced the original facility, is from a delta junction between Buisson and Brisselette.

The articulated rubber-tyred metro vehicles which provide brisk acceleration and braking are an integral part of the VAL system. Six double doors on each side assist rapid loading; all stations have platform edge doors.

The permanently-coupled paired cars are 26 metres long and little more than two metres wide: their designation relates to width in centimetres. There are 83 VAL206 and 60 of the newer VAL208 vehicles which run over both lines.



Above: A VAL208 moves forward for the next northbound line 1 service from CHR B-Calmette.

Left: The original Boulevard vision remains apparent: this is near Planche Épinoy on the Roubaix line in June 2007.

Below: Early VAL206 number 07 near line 2 Porte de Valenciennes on 21 February 2011.



An entirely new transit system was created to link Lille with an area under development to the east. The newly-created commune Villeneuve-d'Ascq and Lille provided the VAL acronym for the world's first fully automatic metro with unstaffed vehicles, devised locally and opening in April 1983. Initially developed by Matra and adopted elsewhere in metro and airport people-mover formats, it became a Siemens product through company acquisition and re-tagged as Véhicule Automatique Léger.

With two lines and 45km (28 miles) of route, Lille remains the largest VAL installation. It is mainly underground but features surface and substantial elevated sections. Automatic operation allows for up to one-minute peak frequency. Station access and styles vary with extensive application of artworks; elevated sites with commanding views contrast with some oppressive underground platform areas. Improvements have been made here and to the fleet.

Both interchanges between metro line 1 (13.5km/8.4 miles) and line 2 (32km/20 miles) which opened in 1989 are in central Lille where there is also a non-revenue connection. The most recent extensions, north from Tourcoing, opened in 2000. Metro and tram interchanges are the three termini, plus Gare Lille Europe and Wasquehal-Pavé de Lille. **TAUT**

## LILLE: ESSENTIAL FACTS

### How do I get there?

**By rail:** Frequent Eurostar services from London St Pancras to Lille Europe (international and main TGV station) taking under 90 minutes. Brussels (about 35 minutes) and Paris (one hour to Lille Europe or Flandres) by TGV.

**By air:** Lille's airport is mainly geared to French domestic and sunshine destinations with no direct UK or Ireland services.

**Local travel:** Cross-modal tickets from machines or Transpole information offices near the metro and tram sub-surface entrance at Gare Lille Flandres. Three-stop Zap ticket at EURO.70; unlimited single journey (EUR1.40). Pass' Journée (EUR4) gives all-mode network coverage for 24 hours.

### What is there to see?

The Flanders identity abounds in architecture and the role of beer in this culinary centre. Honouring the famed Lille-born national leader, Place du Général-de-Gaulle (also 'Grand Place') is the main civic space. Euralille shopping centre covers much of the distance between Lille Europe and Lille Flandres, the latter incorporating the original Paris Gare du Nord frontage.