

Short-forms cause headaches for Northern

With the new fleet a few years away, Northern's issues with short-formed services are affecting almost every part of its network

IT'S been a long, hard summer for the railway – up and down the country. Whilst the south battled heat-induced track problems and the Midlands struggled with wildfires, Northern Trains' passengers noticed that on many of their services there weren't quite as many carriages as they had hoped or expected.

It was revealed in August that Northern Trains had operated 85,000 short-formed services in the last 18 months, a figure which had steadily increased. In fact, Northern's own data suggested that, in the last three years, the percentage of services that were short-formed had risen from 9% to 15%. Whilst most operators run services with different route and fleet profiles, meaning a straight comparison is hard, the industry average is nearer 5%.

That does not sound like a huge number given how many services Northern runs each and every day. But looking at individual (but completely typical days) shows the true scale of the issue.

Take September 7. Out of 64 unit alterations logged across



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Northern's network during the morning and early afternoon window, an overwhelming 59 services were short-formed. Only five services received capacity enhancements. This is not an isolated bad morning either – this appears to be quite normal currently.

For Northern, it is a case of fighting little fires almost everywhere on its network. Its legacy Sprinter fleet of Class '150/1', '150/2', '155', '156' and '158s' operate heavily across the Yorkshire region. On the Pontefract Line, it is a regular occurrence to see a two-car Class 150 formation for many of its Leeds-Knottingley services, instead of the planned four-car formation.

This has caused huge issues in morning peak time services, which one source told RAIL caused "severe overcrowding".

That shouldn't come as much of a surprise. Dropping a service from four coaches to two removes roughly 140 seats and half of the available

standing room.

It's a familiar sight also on the Buxton Line between Manchester Piccadilly and New Mills Central. It is a route that, over an 18-month period, saw a near 25% of services short-formed according to data obtained by RAIL.

Again, these services are typically operated by two-car Class 150/1s rather than the planned four-car services. It is a very similar story for the Wakefield and Hallam Lines, for the stopper services between Leeds and Sheffield that both regularly have short-formed services, and the Bridlington-York and Hull-York services, which our data shows are almost always two-car 155s or 158s.

With the East Lancashire and Yorkshire suburban routes, getting ahead of the problem for Northern is difficult. That's because, when paired to form a four-car service, overnight defects on one set detected at either its Neville Hill or Newton Heath depots means that Northern has little choice but to either cancel or run short-formed. The diagrams are not friendly for re-entering stock because most of the operator's Sprinter fleet are running high-frequency services all day.

It also has little choice but to short-form when diagrams in which units are planned to couple up to form four-car services at peak time can no longer do so. This is largely to do with faults, and the effects of that can be seen with the displacement of sets for the next day's operations.

But faults themselves, from minor issues to much more complicated problems, such as corrosion to the bodies and the ageing design, such as the

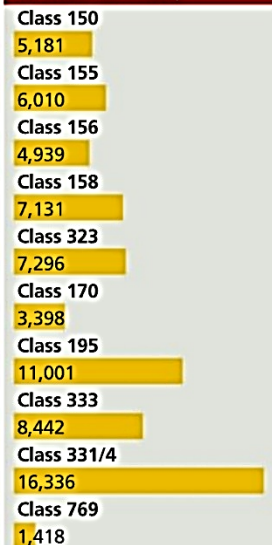
tread brakes on a Class 150 (that have for a long time, caused braking issues), have all mounted up.

Despite Northern's depots' monumental efforts in keeping every train running, it's a domino effect that it seems to be struggling with, trying to ensure it doesn't topple any further.

As well as the issues with the Class 15xs, reliability and short-forming is a problem on the Stalybridge-Southport service, where 23% of services over an 18-month period were short-formed. In total, that was 4,709 services that had fewer carriages.

The Southport-Manchester

M701D 2025-26 P6 (August - September 2025) (FLEET RELIABILITY MEASURED AS MILES PER FAULT)



Miles per fault as measured by the Rail Delivery Group. Only its Class 323 and Class 158 saw an improvement in figures.

Top 10 short-formed routes

Route/Number of trains with fewer carriages/percentage of services		
Manchester Piccadilly-New Mills Central	4262	24.4%
Southport-Stalybridge	4709	23.5%
Southport-Oxford Rd via Bolton	3046	22.3%
Blackburn-Wigan/Headbolt Lane	4087	22.2%
Manchester Victoria-Clitheroe via Bolton	3494	21.7%
Leeds-Chester	3202	20.7%
Liverpool-Warrington Central	2095	18.6%
Sheffield-Huddersfield	2829	17.8%
Leeds/Castleford-Huddersfield via Dewsbury	1783	16.3%
Liverpool-Oxford Rd via Warrington (stoppers)	3504	13.4%

The worst routes over the last 18 months for short-formed services, according to DfT figures.



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Oxford Road-Stalybridge diagrams are ideal for the traction that it runs – the bi-mode Class 769.

In theory, the electrified sections east of Manchester Oxford Road, coupled with the non-electrified sections from Wigan onwards to Southport, should be little problem for a ‘769’.

The Class 769 though, whilst billed as being a rather sprightly ten years old, is built from a converted Class 319 electrical multiple unit (EMU) – itself, nearly 40 years old. Northern has nine of them running in service and another three in store. They were delayed from a planned 2018 introduction date to 2020 after a myriad of engineering delays.

It is the last operator standing regarding the units, as both Great Western Railway and Transport for Wales abandoned plans to run services using them back in 2023 and 2021 respectively. Northern is only really persisting with them because it has little choice.

Reliability is poor and availability limited, meaning Northern has little choice than to use its Sprinter diesel multiple units (DMUs) on many services. To help alleviate some of those problems, Northern is hoping to introduce the Class 323 next year on the electrified sections between Wigan and Stalybridge.

Initially billed as a low-cost fleet option by the Department for Transport

(DfT) and the fleet’s owner, Porterbrook, the ‘769s’ have been constantly beset by issues in their relatively short existence. It is perhaps a symbol of the choices that Northern has had to make.

The previous franchise operators (Northern Rail, Arriva Rail North) before Northern Trains was brought back into public ownership in 2020 and inherited large fleets of both DMUs and EMUs. Arriva Rail North, who took over the franchise from Northern Rail in 2016, promised investment in the fleet, citing the increase in passenger numbers and revenue the franchise had seen over the previous five years as reason to invest.

Despite reticence from the DfT, which led the then Transport Secretary Patrick McLoughlin to personally intervene, it was allowed to invest £500 million in an EMU replacement programme for its then 40-year-old Class 14x Pacer DMUs.

However, Arriva Rail North could not stretch to replacing its Sprinter units, which it had warned were also coming close to the end of their operational tenure.

Instead, it refurbished much of the remaining fleet in an £80 million investment, but it had little effect on performance of the Sprinter fleet. It also intended to reform 24 of the fleet into three-car sets to help alleviate capacity on certain routes in South and West Yorkshire.

Northern quietly abandoned this plan in 2018 as it focused on the introduction of its new CAF-built fleet of Pacer replacements and its introduction of extra Class 156s acquired from ScotRail.

In an almost ironic twist, 150002 (the prototype of the Class 150 and a three-car set) currently runs Huddersfield-Sheffield services.

In part, Northern was stuck with its priorities. Knowing new DMU orders were unlikely to be forthcoming due to a reluctance from both the DfT and manufacturers, it had to look for EMU or bi-mode replacements for routes that were undeniably suited to diesel traction.

It didn’t really solve it, but rather pushed solving the problem to a decade later. That decade has almost come to a close and Northern is now replacing the Sprinters and its Class 333s with 450 new EMU, bi-mode diesel/electric and battery/electric trains, along with acquiring 37 four-car Class 350 EMUs.

However, it’ll be a slow introduction, with the first five entering traffic in 2027. They are in many ways a like-for-like replacement for the Class

323, with very minimal capacity uplift expected.

Whilst Northern’s new train order is welcome and much needed, the problems it is experiencing with its current fleet are likely only to get worse rather than better, and by the time the first new trains enter service in either 2030 or 2031, those issues could be even more pronounced than they are now.

It may also, in time, be a warning shot for Great British Railways, with the incoming rolling stock strategy theoretically best placed to deal with rolling stock age and reliability issues and positioning itself correctly to deal with those.

But it could also hamstring itself if that is not tied to an electrification strategy or an adequate depot investment programme.

Without that, hard choices on the right stock at the right time are still going to have to be made. X @RAIL

