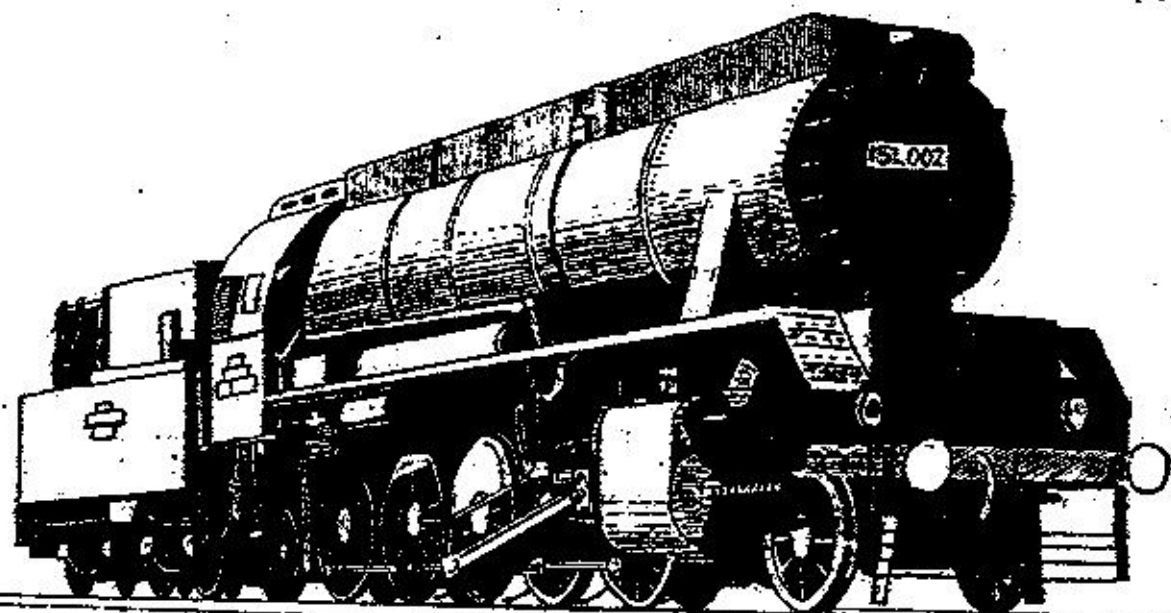


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After what was stated in the last three editorials, readers may be surprised to find that this issue of the Journal is still in the old style. This does not imply that the idea of turning over to a litho production has been abandoned, but simply that enquiries and negotiations are taking longer than expected. If these are concluded satisfactorily, the change will take place in the autumn of 1969, and full details will appear in the Summer 1969 Journal which will, of course, retain the present format.

It will be remembered that, because of the possible change in subscription rate, renewal forms were not enclosed with the Summer Journal as is usually the case, and for most readers, therefore, this issue is being sent in advance of payment. The subscription rate remains at 3/- for the current year (i.e. issues 13 and 14), and those readers from whom payment is due will find a renewal form enclosed. An early settlement would be appreciated.

PUBLICATIONS RECEIVED

RAILWAY HOLIDAY IN PORTUGAL by D.W. Winkworth: 158 pages 5½" x 8½", 42 photographs, 4 maps; published by David & Charles, price 30/-.

Portugal is a popular resort for railway enthusiasts at the present time, and this the ninth in the Railway Holiday series should have a correspondingly good reception. Somewhat surprisingly, in view of the title, the first three chapters deal with north-west Spain, but in the remaining seven the author provides an informative account of a 1967 tour of the Portuguese railway system. Many aspects are covered, but particular attention is paid to the narrow gauge and to steam traction, an emphasis with which few readers are likely to quarrel. Appendices cover CP statistics, locomotive lists and a glossary of Portuguese railway terms.

The book is generally accurate, though there are a few misprints and errors. In the narrow gauge stock list on page 147, for example, the Henschel numbers of 2207-2216 should (as pointed out by the author in a letter to the Circle) read 19870-9, and it would be interesting to know on what basis 2221-4 are claimed to be Borsig 6447-50, when there is good evidence to support the normally quoted 6449-52. One peculiar feature of the book is that all train times are quoted in the 12-hour clock; also, unfortunately, some of the text has already been overtaken by events. However, these criticisms are relatively unimportant. Your reviewer thoroughly enjoyed reading the book, and studying the excellent maps and illustrations, and anyone in the least interested in the railways of Portugal is strongly recommended to obtain a copy for himself. No doubt there will be a fresh rush of visitors to Lusitania in 1969.

(Continued on Page 27.)

MILAN RAILWAY MUSEUM

by

P.M. Kalla-Bishop

The Leonardo da Vinci Museum, Via San Vittore, Milan, now has a collection of thirteen steam and four electric preserved locomotives, which was opened to the public in the autumn of 1968. Eleven of the locomotives come from the 24 that have been stored at Rome Smistamento shed, most since 1955, two have been in the museum for the past ten years, and four locomotives come from store elsewhere on the FS. In addition the museum houses the full-size model of "Bayard", the first locomotive to run in Italy in 1839, taken from the old Rome Termini railway museum. This latter museum is now closed, and the collection transferred to the Leonardo da Vinci in Milan.

The locomotive collection was arranged in a yard at the back of the museum in 1967/68, and a building was then erected around it. The locomotives are:-

470.092, an 0-10-0 freight and banking four-cylinder Plancher compound dated 1908. The tender is a water tank only, coal being carried on the locomotive. The last shed in 1954 was Sulmona, for freight to Terni and Campobasso.

552.036, the last of the 4-4-0 express passenger locomotives built 1899-1900 for the Milan-Venice road of the old Rete Adriatica. Its last shed in 1954 was Treviso, for local freight work to Venice.

s685.600, 2-6-2 four-cylinder, a Caprotti valve gear, superheated rebuild of a 680 class Plancher compound dated 1908. It was the 1,000th locomotive built by Ernesto Breda. Last shed in 1958 was Milan Greco.

691.022, a 4-6-2 rebuilt in 1930 from the old 690 class introduced in 1911, the largest and heaviest FS express locomotive, which worked the Milan-Venice and Milan-Bologna main lines until they were electrified. No.691.010 was originally sent to Rome Smistamento for preservation, but it was changed for 691.022, ex-store at Voghera, during 1966.

746.031, a four-cylinder compound 2-8-2 of 1922, intended as an express passenger locomotive over routes for which the 690 class Pacific was too heavy. Last shed was Turin Smistamento in 1954.

835.186, the familiar 0-6-0 tank type that has been a standard FS shunting locomotive since 1906, and some of which are still in service. Last shed was Genoa Rivarolo.

880.159, a superheated 2-6-0 tank with piston valves, rebuilt from a 1912 slide valve non-superheated 875 class, and intended for level branch lines. Last shed was Florence in 1957, but some of the class are still in service.

940.001, a 2-8-2 side tank version of the standard 740 class 2-8-0, that was built in 1921. Intended for mountain branch lines and freight transfer

trips. Last shed was Milan Smistamento in 1964. Some of the class are still in service.

R301.02, a 3ft 1 $\frac{3}{4}$ in gauge (950mm) 2-6-0 tank for the narrow gauge lines in Sicily, and a type which also saw service in Tripolitania, Cyrenaica, Eritrea and Italian Somaliland. Last shed was Palermo San Erasmo in 1954.

P7, an 0-8-2 side tank for the 2ft 6in gauge (760mm) Trieste-Parenzo railway, built in Italy in 1922 to Austrian State Railway drawings. Last shed was Trieste Campomargio in 1935, the year the railway was closed.

E321.012, a 1-C-1 built in 1927 for the 650 V third-rail Milan-Gallarate-Porto Ceresio. The line was converted to 3,000 V d.c. overhead in 1951.

E330.008, the first really satisfactory three-phase passenger locomotive, a 1-C-1 built in 1914.

E430.1, the first three-phase locomotive to run in Italy, a Bo+Bo built by Ganz of Budapest in 1902. Still numbered in the pre-1918 style with polished brass numerals.

E550.030, one of the famous "piccoli giganti", the 0-E-0 type that in 1911 showed that three-phase electrification was highly successful on the 1 in 28 $\frac{1}{2}$ of the 4 $\frac{1}{2}$ -mile Giovy incline north of Genoa.

BG 34 "Trezzo", a 0-4-0 tram locomotive from the Monza-Bergamo tramway that closed in 1958. Built in 1910, and originally for the Milan-Gallarate tramway.

111, a 0-4-0 tram locomotive built for the Milan-Pavia tramway in 1912. Later on the Milan-Magenta-Castano tramway which closed in 1957.

250.05, a 1915-built 0-6-0 well-tank from the North Milan Railways. The locomotive is a copy of an Esslingen-built design of thirty-odd years earlier, and erroneously carries the works plate 2163/86 off 250.01.

These are the locomotives which have been preserved, but ungratefully one wonders what will happen to the types earmarked but not now selected. These include 680.037, a Flancher compound 2-6-2 in its original condition; 640.106, the first superheated design in Italy (although many of these 2-6-0s are still running); 800.008, an 0-4-0 upright-boilered tank rebuilt in 1913 from a 1907 baggage rail motor 0-4-2; 899.006, 0-6-0 well-tank built in 1882 for the old Bozen-Meranerbahn and later Austrian State Railway; and R410.004, an 0-8-0 well-tank built in 1916 for the K&K Heeresbahn, which spent all its life on the 760mm gauge Chiusa-Plan line, closed in 1960.

RAIL-TOURS IN GERMANY

With the growth of railway enthusiasm in Germany, rail-tours are becoming an increasingly prominent part of the railway scene. Most utilise at least some steam traction, and 1969 looks like being a bumper year. Already the Deutsche Gesellschaft für Eisenbahn Geschichte has announced a programme of 9 tours, of which the first five are;— 19.1.69 - Mit Dampf in den Vogelsberg (64 class); 23.3.69 - Rundfahrt durchs Sauerland (23 and E19); 13.4.69 - Mit DB-Dampf zur WLE (45 or 41 and WLE steam); 3.5.69 - Dampffahrt ins Weinland (98); 4.5.69 - Rauch und Dampf im Mainviereck (64 and E1012). Full details are obtainable from the DGGG at 75 Karlsruhe 1, Postfach 2063.

NOTES AND NEWS

SPAIN

The last twelve months have seen greater changes on RENFE, so far as motive power is concerned, than any previous year. Electrification was completed between Miranda and Burgos, finishing the Madrid-Irun main line, in the late summer; while in August the Madrid-Burgos direct line, unelectrified, was opened after some forty years' work. Most through trains from Irun to Madrid now use this line, worked entirely by diesels, and so have to change traction en route at Burgos. There have been further deliveries of diesels, including a new medium-powered "road-switcher" type, numbered from 10800.

But the most conspicuous change is that there has been a very nearly clean sweep of coalburning locomotives, beginning in late 1967 and more or less complete now. By September 1968 no coalburners were reported on regular duties, freight or passenger, anywhere on RENFE; and indeed the only ones observed in steam by then were shed or works pilots, rarely turning a wheel except on staff trains, at such places as Valladolid, Tarragona, Barcelona (San Andres and Pueblo Nuevo), Atocha works, etc. This has meant the complete disappearance, except where one of them has ended up on a pilot's job, of such classes as the Norte 2-8-0s and 4-6-0s, not to mention all 0-6-0s and 0-8-0s, which seemed to be all over the place even three years ago. On the other hand, the edict for the suppression of coalburners has resulted in a few rather surprising conversions to oil-firing, including members of both the Oeste and MZA 4-8-4Ts, two 4-6-4Ts for the Barbastro branch (Nos. 0205 and 0209), and oddly enough the Valencia shed pilot, 020F.0261 (ex-Central of Aragon, 1898 !)

Hence the steam picture in Spain no longer presents much variety. Much the largest proportion of active stock is RENFE standard 2-8-2s and 4-8-0s; unless otherwise stated below, these two types monopolize all steam working, or at least take a large part of it.

Miranda de Ebro (9/68) - Despite electrification, there is considerable steam here on the Zaragoza line, including ex-Norte 4-8-2s, 4-8-4s, and both 21XX and 22XX 4-8-2s.

Alsasua (9/68) - A small steam outpost, mainly dealing with freights from Pamplona; but 4-8-4s and Norte 4-8-2s have been observed here as well as standard types.

Salamanca - Although ex-Oeste 0-6-0s (1928 series) Nos. 2557, 2565 and 2568 were seen at work here on Barca d'Alva trains in May, by September all had been withdrawn, and services on this line were worked by railcars. One new working is provided by a CP railcar coming from Oporto right through to Salamanca, connecting there with a TER from Oviedo, and so providing for the first time a day service from Oporto to Madrid via the Douro valley. The Avila line passenger trains are diesel, but a few freights are steam. Ex-MZA 4-8-2s share the work on the Medina del Campo-Fuentes de Oñoro main line with standard types, which also work north to Zamora and Astorga. Although the recently-opened Zamora-Orense line has previously been reported as all-diesel, the daily local from La Puebla de Sanabria to Zamora and return is, in fact, a steam working.

Valladolid (6/68) - The Cockerill vertical-boiler 0-4-0 of 1892 is still in store at the works, where the pilot engine is 2-4-OT 120.0221. The Crosti 2-8-0 is also stored.

Zaragoza (9/68) - Following electrification south-west from Miranda, the 4-8-4s now work from Zaragoza towards Miranda, Lerida/Manresa, and Mora la Nueva. Standard 22XX series 4-8-2s are also at work on these lines. Otherwise the situation remains as before, with the ex-Norte lines to Miranda and Manresa almost wholly steam, ex-MZA 4-8-4Ts on the Huesca loop, some steam towards Madrid and diesels to Camfranc and Caminreal. It must be assumed that the MZA 4-8-0s at Alcaniz have gone, though this is not confirmed.

Lerida area (9/68) - Coalburning pilots work at Lerida (Norte 2-8-0) and Manresa (Norte 0-8-0 2537); although two 4-6-4Ts have been converted to oilfiring for the Barbastro branch, trains normally seem to be diesel-worked. Norte 4-6-0s ceased working passenger trains on the Lerida-Tarragona line in the spring, although they continued to appear on light freight duties until midsummer; at first their passenger turns were taken over by 2-8-2 Garratts, but this interesting development was shortlived, as the new 108XX diesels took over by September. However, the Garratts still monopolize the quite heavy freight on this line. Oilburning MZA 4-8-4Ts work to Pobla de Segur, and ex-Oeste 242.0221 was observed on a Corvera-Lerida local in August.

Valencia area (5/68) - All six 4-6-2 Garratts are still active, mainly on freights, but including the occasional passenger turn to La Encina. Alameda station (ex-Central of Aragon) is now closed, but the works are still active.

Barcelona - Coalburning pilots observed were 030.0236 (Pueblo Nuevo) and 030.0203 (San Andres works). Although there is no active steam in the area, the works still do some overhauls; notable here was the sight of 151F.3101 ex-works. Three more 2-10-2s were in the works at the same time, although it was suggested that they might be cannibalized to produce only one or two overhauled locomotives.

Madrid and Oeste area (5/68) - Although this area is almost all steam, there are few reports from it. Standard types almost monopolize; however two 2-10-2s have been reported on freights between Madrid and Talavera. Works pilots at Atocha are 120.0202 and 040.2313.

Northwest Spain - Although dieselized or electrified for some years, Monforte works in this area still repairs steam locomotives (standard types).

Cordoba and Southern Spain (9/68) - There is now very little steam activity in this area. However, standard 4-8-0s work the majority of freights between Cordoba and Ronda, and a 2-8-2 the 07.00 Ronda-Algeciras and 18.35 return; ex-Andaluces 2-8-0 140.2044 is pilot at Los Rosales, and ex-Andaluces 2-6-0 130.2057 pilot at Algeciras.

(Spanish information is due to T. Auty, J.D. Blyth, R. Breakwell, D. Dixon, D. Fielding, M. Grieves, A.J. Hart, and T.A. Tyatt.)

PORTUGAL

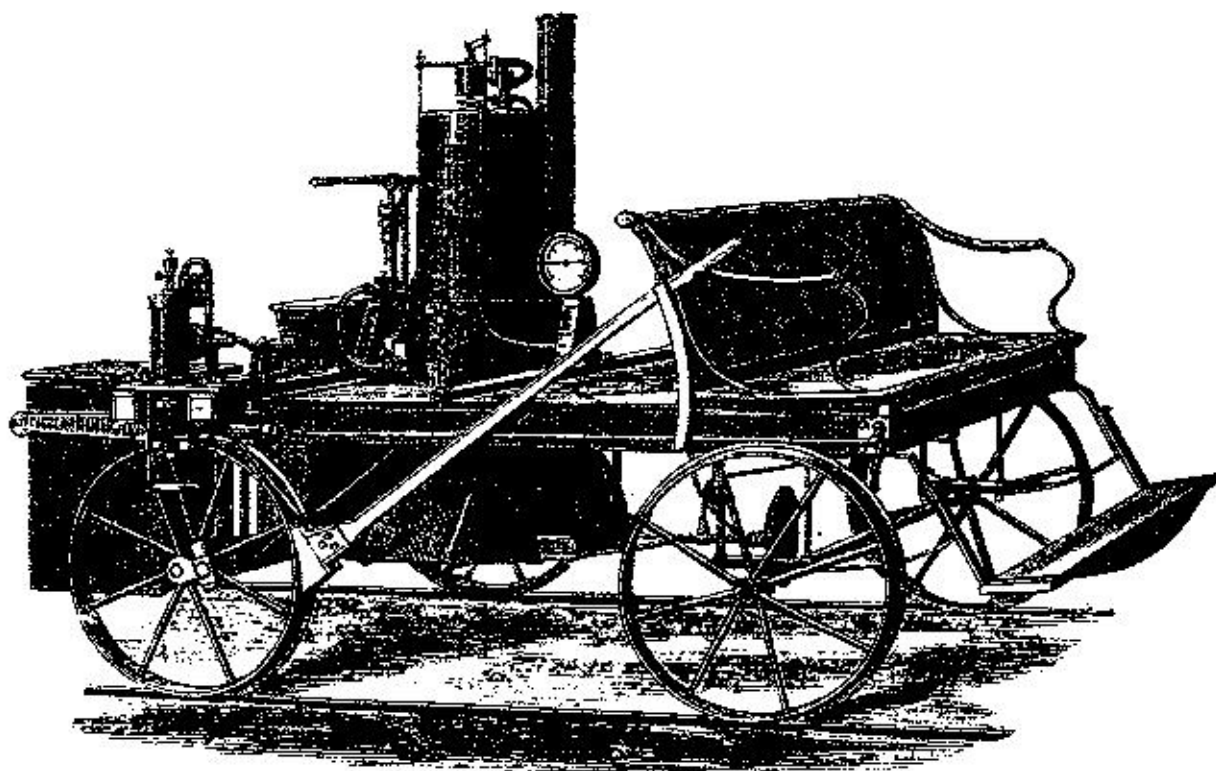
Dieselisation is approaching completion south of the Tagus, and has begun, but so far not seriously, north of the Douro. Between the two rivers, there is no steam except for the narrow-gauge lines and one or two isolated workings of 2-6-4Ts south from Oporto as far as Ovar. Reported as still active in September were a total of 77 broad-gauge steam locomotives, but this is perhaps an underestimate as a number of engines were not accounted for. The total was made up as follows: 0-4-0T (1), 2-6-2T (1), 2-8-4T (6), 2-6-4T (22), 4-6-0 - 221 series, Borsig compound (2), 261 series, de Glehn compound (1), 281 series,

inside cylinder (5), 291 series, outside cylinder (7), 351 series, de Glehn compound (1), 2-8-0 - 701 series, simple (14), 751 series, compound (1), 2-8-2 (4), 4-6-2 - 501 series (2), 551 series (4). It will be noted that this list omits the well-known Beyer Peacock 0-6-0s and 0-6-2Ts, which have all been withdrawn and replaced by diesel shunters. A drive to get rid of coal-burning locomotives, as in Spain, seems to have been launched, and it appears that the remaining compounds survive because they burn oil.

South of the Tagus it was reported in May that steam still worked from Barreiro to Funcheira (via Setubal and via Beja) and branches. Classes here are 2-6-4T, 2-8-4T, 351 4-6-0, 2-8-2, and 501 4-6-2; the Spanish-built 4-8-0s had apparently been withdrawn by September.

North of Oporto there is much more steam action, with only a minority of diesel traction and, presumably to keep up appearances, a number of trains changing from diesel to steam en route (e.g. at Marco de Canaveses on the Douro valley line) to concentrate what diesels there are in the Oporto area. Beyond Regua, and beyond Nine on the Moncao line, diesel locomotives did not yet work in September.

There appears to be no change on the narrow-gauge lines, with a variety of steam power; every locomotive on the books (total 69) has been observed this year, with only three engines apparently dumped. Broad and narrow gauge locomotives are as clean as ever; the Brigade of Guards would be proud of them. (It is still perhaps a pity that the Portuguese, like the Spanish, cannot put as much enthusiasm into cleaning the station lavatories!)



STEAM TROLLEY FOR THE OUDE AND ROHILKUND RAILWAY.

CONSTRUCTED BY MR. JOSEPH GREEN COOKE, LOCOMOTIVE AND CARRIAGE SUPERINTENDENT.

Two sidelights on Portuguese modernisation:- The through railcar from Salamanca to Oporto arrived at Barca d'Alva on October 7th with one bogie burning merrily; passengers were transferred to another car, rather than to a scratch train worked by the de Glehn compound 4-6-0 which has been transferred to the area. Secondly, the dump of withdrawn locomotives at Contumil depot occupies, oddly enough, the only two tracks in the yard which are electrified at 25kV.

The de Glehn compound reported working at Regua is No.238, previously at Entroncamento. On October 1st a locomotive of a class not reported active for some time - SACM 0-6-0 No.167 - worked a special in the upper Douro valley, from Pinhao to Vargelas and return. The train had been hired by Taylor, Fladgate and Greatham, a local port house, who were entertaining a party of Dutch importers. The schedule called for even time (in km.), with water stops at Tua, and was not kept by a narrower margin than might have been expected.

(Portuguese information is due to J.C. Beckett, J.D. Blyth, D. Dixon, A.J. Hart and T.A. Wyatt.)

FRANCE

Although many Journal readers must have been to France and seen things, very few have sent in any reports; a proportion of the notes below, therefore, was gleaned by editorial collection of the fag-ends of other people's conversations, and if members complain at their paucity, the remedy is in their own hands.

Calais - Five pacifics were still at work in October, contrary to previous forecasts, and may continue until dieselisation of the regular boat trains some time in 1969. The difficulty about using 141Rs instead is that, limited as they are to 100 kph., they cannot run fast enough to guarantee timekeeping if there are any out-of-course delays. The pacifics are allowed to go at 120 kph., which gives considerably more margin. Many 141Rs work on secondary passenger and freight trains; other classes to be seen at Calais and/or Boulogne are 151TQ, 050TQ and 040D, though it is believed that all regular shunting at Calais is now performed by diesels.

Hesdigneul-Desvres branch - For many years the service on this branch has consisted of two early morning departures from Desvres, running through to Boulogne, and two return workings in the early evening from Boulogne. Although shown in recent editions of Chaix as worked by autorails, these turns seem to invariably produce steam power, latterly 141Rs. Now it is reported that the passenger service is to be withdrawn and replaced by buses, thus bringing to an end one of the last steam-worked branch passenger services in France.

Lille - The 4-8-4Ts and 0-8-0s on local workings in this area were scheduled for withdrawal and replacement by diesels in September. Visitors passing through Lille since then have reported seeing no steam in action, so presumably the substitution has taken place as planned.

Paris - No recent changes. The 141TBs at Bastille are scheduled to vanish, with that terminus, in autumn 1969. There are reports that the replacing RER (see last Journal, page 11) is not making very good progress, but whether this will delay the closure of Bastille is not yet known. Dates forecast for electrifications in the Nord suburban area are:- Creil-Pontoise 3/69; St. Denis-Pontoise 5/69; Epinay-Persan Beaumont 5/70, Ermont-Baubonne-Valmondois 1971. This will

still leave unelectrified the lines from Paris to Ermont-Eaubonne via St.Ouen and from Ermont to Argenteuil. Possibly they will be turned over to diesel traction, though this seems rather surprising in the latter case, as the branch is a short one connecting what will be two electrified systems. At the moment, almost all services on the above-mentioned Nord suburban lines are worked by 141TCs, with the exception of trains between Pontoise and Creil, where diesel railcars or haulage are normal.

Le Mans - The 241Ps here still cling to life, on extra and relief expresses, messageries, etc. The position at Chaumont is believed to be similar, with 141Ps also active.

Bellemeuse - This is an isolated 141R colony, with four daily passenger workings (on weekdays only) to Evian, and about as many freights.

Gray - Here is situated the locomotive headquarters of the CFTA Réseau de Franche-Comté. Locomotive stock of this Réseau at 1st July was 13 140Cs (Nos. 6, 38, 51, 59, 120, 125, 133, 141, 205, 216, 287, 343, 363) and 3 130Bs (Nos. 348, 439, 476), together with 5 150hp railcars and 3 trailers. Only one 130B was noted at work in the Gray area in August, together with four or five 140Cs in steam daily. The whole Réseau is understood to face closure in the near future. The party returning from Lyons after the Circle's Vivarais tour observed three rodless 130Bs in the consist of a southbound freight near Maçon, presumably going from Gray for scrap.

Bourbonnais Line - Diesels have taken over certain additional express workings, and a few freights. However, in early December the morning Clermont-Ferrand to Paris (Lyon) express (as far as Moret) and evening return working were still regular 241P jobs, with change of engines at Nevers. It is believed that these turns were to be taken over by diesels from 15th December. 141Rs are still very active in the area, despite a large dump of derelict members of the class at Nevers. Mostly they appear on freight, including several Sunday workings if a day's observation at Nevers on 1st December can be taken as representative. On this date two of the class were seen on mid-morning freights climbing the bank out of Nevers in the direction of Cercy-la-Tour, and several more appeared on main line workings. The previous day two successive southbound departures from Moret (13.23 Paris-Clermont and 13.18 Paris-Montargis) were also 141R-powered.

Montluçon-Ussel-Le Mont Dore Area - 141Es were still moderately active at the first two of these locations in August, and Montluçon still has the last surviving PO 230G, which was observed highly polished and about to work a train in early September. Replacement of 141TAs by diesels has been proceeding, and in September only one daily working on the Le Mont Dore branch was steam. However, subsequent rumours reaching England indicate that all is not well with the replacing diesels (haven't we heard that somewhere before?) and that there has been some reversion to steam. Confirmation, or otherwise, would be welcome from any recent visitor to the area.

Branch Line Closures - The following lines are under consideration for closure in the near future:- Est: Neuchâteau - Pagny-sur-Meuse, Nançois-Tronville - Neufchâteau, Châtillon-sur-Seine - Is-sur-Tille - Gray, Colmar - Neufbrisach, Lautenbach - Bollwiller, Saverne - Molsheim; Nord: Dunkerque - Bray-Dunes, Laon - Liart; Ouest: Bréauté-Beuzeville - Bolbec, Segré - Châteaubriant, Sablé - Segré, La Flèche - Vivy, Niort - Fontenay-le-Comte, Pont-Audemer - Quetteville, Fontenay-le-Comte - Velluire, Evreux - Pont-Audemer, Saint-Pierre-du-Vouvray - Louviers; Sud-Ouest: Buzay - Laruns, Puyoo - Mauléon, Lannemezan - Arzac-Cadéac,

Les Aubrais - Malouherbes, Les Aubrais - Montargis; Sud-Est: Bonson - Saint-Bonnet - Sembadel; Méditerranée: Vogué - Lalovade - d'Ardèche, Le Teil - Vogué - Robiac, Le Vigan - Quissac - Sommières, Mas-des-Cardies - Quissac. In each case the closure refers to passenger traffic, and the position with regard to freight is not known.

(French information is due to T. Auty, D. Dixon, J. Toy, plus the aforementioned "fag-ends".)

GERMANY

The end of steam on the Osnabrück-Bremen-Hamburg main line, now electrified, has meant the end of the last really busy steam-worked route in Germany. However, quite a lot survives, as there are still, of course, many moderately busy lines, not to mention the occasional branch or secondary line with some steam.

Münster-Rheine-Baden-Norddeich - Expresses are now mainly worked by oilburning 01.10 Pacifics displaced from Osnabrück, replacing coalburning members of the same class. Freights (about hourly) have 44s and 50s. At Lingen, 31km north of Rheine, there is a works overhauling various classes of steam locomotive, including, in October, 55.4176 in steam. There is a climb out of Lingen southwards, which is reported as being some sort of substitute for the bank at Vehrte, of sainted memory, on the Bremen-Osnabrück line.

Hamburg Area - Before electrification to Osnabrück, many passenger trains to Westerland and some to Lübeck were worked by 01s, and three 03 Pacifics; these may now have been replaced by 01.10s. East German 01.5s now work the Berlin and Dresden trains, which can be travelled on as far as the frontier-town of Büchen without formality. Push-and-pull fitted 78 class 4-6-4Ts were working locals on this line, connecting with S-Bahn electrics at Bergedorf; some trips go through to Büchen, but most no further than Aumühle or Friedrichsrh. However, the tanks were due for imminent replacement by diesels in early September, and the substitution has probably taken place by now. There are still 82 and 94 class 0-10-0Ts of Rothenburgsort shed shunting in the docks and industrial area.

Aachen Area - Despite electrification, some steam freights still operate up the grade at Herzogenrath, including the coke trains with one 50 class 2-10-0 at the front and two more banking. 50s and 55 class 0-8-0s are still working at Aachen and Rheydt.

Altenbeken - Practically all passenger trains are now diesel, but 44s are still much in evidence on freight, some towards Kassel or Hannover, but mainly running in the direction of Ottbergen, Holzminden and beyond.

Mosel Valley - This line is not what it was, either for steam or for traffic density. However, 01s and 23 class 2-6-2s work certain passenger trains still, despite an influx of V160s, and the somewhat reduced flow of freight is still in the hands of 44s, though banking from Cochem up to Ürzig is now considerably reduced. Steam still runs through to Apach and Searbrücken,

Schweinfurt - Steam workings, some of them passenger, including turns on the Bamberg, Kitzingen and Mellrichstadt lines, have 50s and 78 class 4-6-4Ts. Bad Neustadt had a 78 working freight on the Bischofsheim branch during the summer, plus the last 98 class 0-8-0T on the Königshofen branch; but this is probably now diesel. Coburg, nearby and close to the zonal border, has 86 class 2-8-2Ts, 64 class 2-6-2Ts and 50s, sharing work on the Rossach, Furth, Neustadt and

Rodach branches with some V80 diesels; the Neustadt branch had the largest number of steam passenger trains, with 64s and 86s.

Hof Area - Quite a lot of main line steam, including the line from Lichtenfels, with 01s and 50s predominating.

Nürnberg Area - 86 class work two branches - to Allersberg and Beilngries.

Stuttgart Area - This is still very much as described in the last issue of the Journal (page 8), with 38 class still well in evidence.

Hagen - The Güterbahnhof depot here is one of the last two sheds in Germany with an allocation of 57 class 0-10-0s. Seven of the class reside here, of which two were dumped on 10th October. The other five have no regular turns, but are used on shunting and trip workings in lieu of failed diesels; on the date mentioned two were missing from the shed, so it appears that German diesels are no more reliable than those of certain other countries. Other steam classes to be seen in the area are 23 and 50, the former mainly on passenger and parcels trains on the Bestwig line, being in fact allocated to Bestwig depot. (The other DB shed housing 57 class, at any rate at the beginning of 1968, was Haltingen.)

(German information is due to G.J. Hoare, J.B. Toy, M. Grieves and E. Wilmshurst)

ITALY

Due acknowledgement must here be made to "European Railways", armed with which two explorers crossing Northern Italy diverted in search of steam; every train they had thought might be, was. All the same, however, some lines did not have very many.

Aosta - Two or three 640 class 2-6-0s, for freight service towards Chivasso only.

Novara - The line from Domodossola via Borgomanero has a fair amount of steam, mainly 640s, including all locomotive-hauled passenger trains. 880 class 2-6-0Ts also work both locomotive-hauled passenger trains on the Varallo-Novara line, which are surprisingly heavy.

Otherwise the position in the north remains as reported in the last Journal (page 9), with no significant changes, and the operation of 685 2-6-2s at Cremona and Crosti 2-6-0s (623 class) at Ravenna photographically confirmed.

(Italian information due to E. Wilmshurst.)

DENMARK

Although steam had been officially reported as finished on the island of Zealand, there was still some activity during August. At Copenhagen shed on 8th of that month, class S 2-6-4Ts and E 4-6-2s were in use, whilst class C 4-4-0, T 4-6-0, Hs 0-4-0T and F 0-6-0T had representatives in store. One of the pacifics was noted at Kalundborg the following day, having worked a train from Copenhagen, and another, No.999 was used to haul a special of the Dansk Jernbane Klub from Copenhagen to Maribo, and from Nykøbing to Copenhagen on 1st September. At Roskilde class K 4-4-0, Q 0-8-0T and F 0-6-0T were in store, together with class F 0-4-0T No.186 (believed to be for preservation) and 0-8-0T Borsig 4471/95, originally East Zealand Railway (OSJS), later at Frederiksverk Steelworks, and now the property of the Dansk Jernbane Klub. At Helsingør class S 737 was in steam as standby on 8th August, and also at the shed was Skive-West Salling Railway (SVJ) 2-4-0T No.1 (Henschel 20273/24) presumably also for preservation. Gedser produced stored engines of classes E, F, Q, S and D (2-6-0). Stored at

Naestved were classes C, D and PR (4-6-2).

In Jutland, again, most steam locomotives noted were in store, but class E 966 was seen leaving Langaa at 19.55 on 26th July, on a local train to Fredericia, and 984 of the same class hauled a southbound freight out of Fredericia about 13.00 on 10th August. Classes noted stored at sheds in Jutland were:- Skanderborg - F (4-4-2) and T; also K 563, A 4-4-0 159 and O 2-4-2T 318, all reserved for the future railway museum. Aarhus - E, F and Q. Langaa - E, F and R (4-6-0). Randers - D and F. Aalborg - F. Frederikshavn - F, H (2-8-0) and R. Fredericia - H and M (2-10-0). Inderskov - D and R. Esbjerg - D and F; also Ks 2-4-0 273 and R 937 for the railway museum. In addition, Fredericia housed usable locomotives of classes E, F, M, Q and R.

On Funen, Odense shed was visited, and in addition to classes F, Hs and Q in store, no less than 7 locomotives were put aside for the railway museum - Fs 2-4-0 263, G 0-6-0 78, H 0-4-2 40, Hs 0-4-OT 363, O 0-4-OT VB L2, P 0-4-4T 125 and P 4-4-2 931. (Danish information is due to J. Bell.)

FINLAND

The steam situation in this country has deteriorated somewhat during the summer, with the arrival of a new series of medium-power double-bogie road-switcher type diesels; by September the only booked steam working out of Helsinki, for example, was the 15.05 local to Riihimäki (with a pacific) and it is understood that the only regular steam passenger jobs in the country were on the Seinäjoki-Vaasa branch and certain trains from Pieksämäki and Savonlinna. However, during the summer a number of seasonal passenger trains were also steam-hauled, and during May Hv3 4-6-0 No. 782, a woodburner, was noted on the 22.30 Savonlinna-Helsinki as far as Parikkala, returning on the opposite train due back at 7.27. The use of woodburners on passenger trains has been a phenomenal rarity for five or six years at least, and the observer reports that the sight, sound and smell of this locomotive was the highlight of his trip.

Although it does not seem that any area is wholly steamless, very much the better part of the country for active steam working is the east, particularly around Kouvola, Pieksämäki, Joensuu, Savonlinna and Iisalmi. The once ubiquitous 4-6-0s may now all be out of use; not one was observed in October, and in May the woodburner mentioned above was the only active example found. Apart from a few Tv1 2-8-0s, the only active woodburners left are some Tk3 light 2-8-0s, generally used only for shunting, although at Jyväskylä and Iisalmi they have been reported on local freight work.

Classes still active are: Vr1 (yard shunters, quite common); Vr3 0-10-OT (heavy hump shunters at Kouvola and Pieksämäki - replacement by diesels imminent); Pr1 2-8-2T (now only on shunting and trip working at main country centres; none at Helsinki any longer); Vr5 0-6-2T (shunting, including Oulu, Riihimäki and Kuopio); Tv1 and Tk3 2-8-0s (quite widespread, but generally in reserve, with few Tv1s in actual use); Hr1 4-6-2 (now used mainly on freight and relatively inactive, but most likely east of Riihimäki or north of Kouvola); and Tr1 2-8-2 (still widespread on freight work, with examples regularly found as far north as Rovaniemi, though much commoner in the east). The American-built Tr2 2-10-0s are probably all out of use; most of the class is dumped at Riihimäki, but there were unconfirmed rumours of one active at Pieksämäki.

Russian class Er 0-10-0s work into Finland at Imatrankoski with freights; at the main-line crossing at Vainikkala freights on the Russian side

are diesel-worked, but passenger trains appear to have reverted to Su class 2-6-2s. However, photography is perilous, and railways HQ at Helsinki made bitter remarks about the trouble one intrepid adventurer well-known in CRC circles, mentioned by name, had caused them.
(Finnish information is due to J.B. Toy.)

JUGOSLAVIA

Observations during a rapid run through the country in June showed very little change on the steam front, although electrification is now complete between Ljubljana and Zidani Most, and is being extended towards Zagreb, while a new class of medium-power French-built diesels similar to the SNCF BB63000 class is becoming common in the Zagreb-Maribor area. However 06 2-8-2s, 25 2-8-0s, and 29 2-10-0s are much in evidence on this line, and a 154 class 2-6-0T was observed as yard pilot at Sevnica. One of the ex-Austrian 10 class 4-8-0s, 10.001, was photographed on a local train near here. Steam power is still common on the Vrpolje-Sarajevo line, with 33 class 2-10-0s (DR 52) and 11 class 4-8-0s (Hungarian) predominating. Ex-Hungarian 0-6-0 No.125.126, very polished, was the shunter at Bosanski Brod (standard gauge). In the Nis area, Pacifics are common, with 01 2-6-2s on locals and 33s and 38s (UNRRA 2-8-0s) on freights; 30 class 3-cylinder 2-10-0s also work in from Zajecar.

BULGARIA

Diesels are getting a firm grip of this once very steamy country, and of the two unique locomotive classes, the 46 class 2-12-4Ts ceased work on the Pernik line in May and appear now to be all withdrawn, except possibly for one in reserve at Sofia (all the 3-cylinder batch were noted dumped at Vakarel in June); while the 11 class 4-10-0s seem to have finished up on the Vakarel-Cukorovo branch, where one was noted hauling three 4-wheel coaches tender first, another was serviceable, and eight were dumped. Certain highly scenic lines are almost wholly diesel-worked, notably Gorna Orjahovitza-Tirnovovo-Tulovo, and the narrow-gauge Septemvri-Dobrinishte. However, there is still quite a lot of steam about, some of it moderately exotic.

Sofia-Pernik - This extremely steep climb southwards from Sofia, on the line which continues to the Greek border at Kulata, carries a heavy coal and ore traffic as far as Pernik, which was still about $\frac{2}{3}$ steam in June. Steam workings are, however, more or less monopolized by 15 class 2-10-0s (DR class 52), which are much the commonest Bulgarian class; they work passenger trains, often double-headed, and freights, double-headed and often banked as well. Freights come up flat out at about 5mph. Several 45 class 0-12-0Ts still shunt at Pernik.

Plovdiv - Although the line west of here is electrified, and although your correspondent had been assured in Sofia that the 17 class 2-8-0 compounds were long extinct, 17.48 was observed on a long freight at Septemvri. (Visitors to Bulgaria are not recommended to try to obtain photographic or other permits from EDZ headquarters; they will be regarded with suspicion, passed through an endless bureaucratic chain very politely, and will waste a great deal of time; any information gained during the process will certainly be misleading and probably false.) 01 2-8-2s still work expresses to Svilengrad.

Stara Zagora is one of the better centres. The 05 4-6-2s are stated to work to Burgas, on expresses, among a variety of other mainline steam both eastbound and southbound. Shunting, etc., is done by 49 class 2-cylinder compound 0-10-0Ts, (also noted at Carvenbreg), and 35 class 2-6-2Ts.

Kaspichan is another good centre. Notable are the last surviving 16 class 2-10-0s (DR class 42, or basically 2-cylinder 44s), working freight to Gorna Orjahovitz but being replaced by diesels; the last surviving 03 class 3-cylinder 4-8-2s, due for withdrawal in autumn 1968, but still then working expresses to Varna (unfortunately the only one observed working by your reporters could not be photographed as they had just been arrested for taking a rather bad photograph of a class 28 0-10-0); 12 class locally built 2-10-0s; and sundry small fry. Seen at Shumen (Kolarovgrad on most maps, but Comrade Kolarov is now out of favour) was a 36 class 2-8-4T on a train to Komunari; these locomotives have a strong family resemblance to the 2-12-4Ts. There are relatively few diesels in the area, and the Ruse line appeared all-steam, and all 15 class at that.

ROUMANIA

The celebrated Bucharest rush-hour roof-riders still swarmed in June, despite the presence of overhead wires due to be energised at 25kV in certain places. However, the practice is being stamped out; double-decked coaches are promised to ease the crush (some have in fact been delivered) and meanwhile railwaymen have been observed coating steps and handholds used to climb onto the roofs with thick black goosy oil. Apart from this, and the continued proliferation of diesels, there is little change for the worse. Maffei 4-6-2s still work north-east of Bucharest, especially to Galati; 2-8-4s can still be found in Bucharest, although they are commonest in the north-west of the country, especially between Cluj and Oradea; nobody need go short of P8s or G10s anywhere; ex-DR 52 and Resita 2-10-0s are very common in the north-west (Craiova-Vulcan Pass-Simeria recommended); ex-Hungarian 2-6-2s and 2-6-2Ts are also found on branches in the same area; the absurd rack section on the Caransebes-Subcetate line is still worked by Hungarian 2-8-2Ts (although the first act of any Roumanian Beeching would be to close it); and although the RCTS official party were shown the surviving 2-10-2, 151.002, in store at Cluj on June 26th and were apparently told it was unlikely to work for some time, the CRC unofficial delegation photographed it in action between Oradea and Cluj (on a breakdown train) on July 4th. It is this locomotive that features on the cover of this issue.

SWITZERLAND

On 30th October, class C5/6 2-10-0 2969 of Erstfeld worked a special train from there via Zürich to Winterthur, where it was withdrawn from service and handed to SLM, who will exhibit it at Oberwinterthur. This occasion marked the official end of steam traction on the SBB. Class C5/6 2973 has been withdrawn at Bellinzona, and class E4/4 0-3-OT 8904 at Basel. C5/6 2958 and E4/4 8901 have been withdrawn at Olten, but are being retained as stationary heating plant. Of other surviving 2-10-0s, 2965 is being restored at Winterthur for exhibition at Erstfeld, 2978 is at Vallorbe for eventual display in the Lucerne Museum, and 2973 is to be exhibited at Borchers, near Lausanne, along with SNCF pacific 231E22. Other SBB locomotives stored at Vallorbe pending exhibition at Lucerne are A3/5 4-6-0 705, B3/4 2-6-0 1367, Eb2/4 4-4-OT 5469, Eb3/5 2-6-2T 5819 and E3/3 0-6-OWT 8512.

(Swiss information is due to B.A. Stone.)

TUNISIA

This country was rumoured already to be a write-off as far as steam interest is concerned, and the report of a visit made in September 1968 tends to confirm this. The standard gauge lines, running westwards from Tunis, were not

observed except in Tunis itself; operation was dieselized, but some of the rolling stock was interesting, and most seemed ancient. The only passenger working observed was a Renault railcar hauling a large 4-wheeled coach. The main running shed, serving both standard and metre gauges, is at Farhat Mached, about $1\frac{1}{2}$ miles out from Tunis-Ville; it was full of diesels, but contained one steam locomotive which seemed serviceable but was not in use - a standard War Department "Austerity" 0-6-OST. The main SNCFT works is at Sidi Fathalla, about a mile further out, and again serving both gauges. A number of other steam locomotives were found here dumped, the standard gauge ones in process of being cut up. These were: two more "Austerity" 0-6-OSTs, 2-10-0s Nos. 228 and 234, built SACM 1910, and 2-6-OT No. 26, built Batignolles 1909. The metre gauge locomotives, still intact, were 0-4-4-OTs Nos. 460 and 477, built Batignolles 1903 and 1906, and an ex-USA "MacArthur" 2-8-2, built by Alco in 1943. The 0-6-OSTs were standard except for the addition of large water tank fillers.

The metre gauge lines running southwards from Tunis appeared to be worked entirely by railcars and trailers, except for a diesel loco-hauled shuttle in the suburban area; there was little if any freight handled. The standard gauge electric line to Carthage still works, although the stock is rather elderly; third rail is used on the private right-of-way, and overhead for street running.

A hurried look at the diagram book belonging to the Chef de Dépôt at Farhat Mached did not show it to include the locomotives seen at the works; but it did include the metre gauge Pacifics, some of which went to the La Robla line in Spain; across the page was written something unreadable but dated 22-11-61, which was probably the date the survivors were withdrawn.

(Tunisian information is due to J.K. Williams)

Note:- A comprehensive Tunisian locomotive list will be published in the Journal shortly, probably commencing in the next issue.

INDONESIAN STATE RAILWAYS (P.N. KERETA API) LOCOMOTIVE LIST

The Indonesian State Railways were formed from the former Staats Spoorwegen (SS), the main Dutch railway of Sumatra and Java. Of the locomotives in the list, most came from the SS, but the narrow gauge (75cm) in Sumatra were from the Atjeh Tramway Co., nationalised at an early date with the SS. For some reason unknown, the locomotives of the Deli Spoorweg Maatschappij (DSM) are not included in the list, although the line was nationalised as long ago as 1957. Both the DSM and the AT, which adjoined, covered the north of Sumatra, the central and southern sections being ex-SS.

Before the second World War there was a 4' 8 $\frac{1}{2}$ " gauge main line - the Nederlandse Indische Spoorweg (NIS), but this was converted to 3' 6" gauge under the Japanese occupation, and the locomotives and rolling stock were, it is believed, sent to Japan.

The present numbering system is based on that of Japan, with the letter indicating the number of coupled axles, followed by the class number starting at 10 for tank and 50 for tender engines. Finally comes the engine number, starting from 1 in each class, though it will be observed that there are a number of discrepancies in the Running No. column of the list when compared with the class totals.

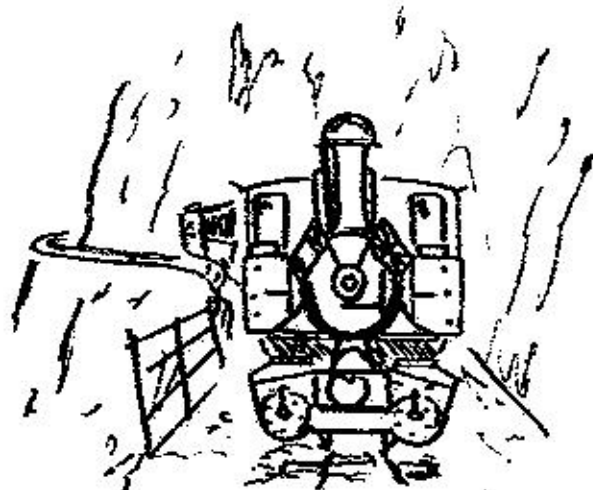
Some remarkable locomotives will be noted in the list, including the only 3' 6" gauge twelve-coupled locomotives ever built and, in all probability, the only eight-coupled Mallets at work in the world today. At the other end of the scale, substantial numbers of 0-4-0, 2-4-0 and 4-4-0 tender engines are a distinct rarity today. Stock details are as at 31.12.67.

<u>Type</u>	<u>Builder</u>	<u>Date</u>	<u>Class</u>	<u>Running Nos.</u>	<u>No. in service</u>	<u>No. in store</u>	<u>Total</u>
<u>A. 3' 6" gauge; Java and Madura</u>							
<u>(i) Tank engines</u>							
0-4-OT	Beyer P. Werkspoor	1884 1884	B12 B12	01-12, 25) 13-24, 26/7,) 29-34, 36-38)	9	8	17
2-4-OST		1884	B11		-	2	2
2-4-OT	Hanomag	1886	B13	1-11	9	2	11
2-4-OT		1896	B15		7	1	8
0-4-OT		1897	B16		2	9	11
0-4-OT	Hohenz.	1897	B17	10-11 (?)	6	-	6
0-4-OT		1898	B18		1	-	1
0-4-OT		1898	B19		3	1	4
0-4-OT	Werkspoor) Bayer P.)	1899	B20	1-4, 14-23, 9-13	1	-	1
0-4-OT	Hohenz.	1899	B21	7/8	1	2	3
0-4-2T	Sächs	1899	B22		12	3	15
0-4-OT		1902	B23		1	-	1
0-4-OT		1904	B24		1	-	1
0-4-2T rack	Esslingen	1904	B25	1-5	5	-	5
0-4-OT		1901	B26		1	-	1
0-4-2T	Hartmann	1912	B27	1-16	15	1	16
0-4-4-2T	Hartmann	1900	BB10	1-12)	8	8	16
	Schwartzk.	1900	BB10	13-16)			
0-6-OT	Sharp S.	1880	C10	1-3	-	-	-
2-6-OT	Hartmann	1881	C11		29	2	31
2-6-OT	Hartmann	1893	C12	1-43	18	20	38
0-6-OT	Cockerill	1895	C13	1-6	1	2	3
0-6-OT	Beyer P.	1896	C14	1-14	4	-	4

To be continued.

MINOR RAILWAYS SECTION

(Farewell to the
Vivaraïs - Lozère)



CFD RÉSEAU du VIVARAIS - LOZÈRE

Although the two systems covered by this title were quite widely separated physically, they were always considered as a single unit by the CFD, and were administered from Le Cheylard; the depot there also did heavy repairs for both systems and provided replacement stock for the Lozère as required. Both concessions were terminated in 1968, the Lozère on 1.4.68, and the Vivaraïs on 1.11.68.

Réseau du Vivaraïs

The general history of this system was recorded in issue No.1 of the Journal, together with a map, and readers are referred to this for general information. (This issue is now out of print, and it is regretted that copies are not now available from the Circle.) We enclose here a note on the recent CRC trip, together with technical details, a revised locomotive list, and a gradient profile.

Technical details (as at 1.8.68.):

Length:	La Voulte-sur-Rhône - Le Cheylard - Dunières	108km
	Tournon - Le Cheylard	53km
Summit:	Le Devesset	1060.8m (3510ft)
Maximum gradient:		1 in 30
Minimum radius curve:		100m
Engineering works:	Viaducts	57
	Steel bridges	21
	Tunnels	13

Track: Gauge: 1m.

Rail: Vignoles pattern, 20kg/m with baseplates.

Sleepers: Treated oak, spaced at 1400 to 1600 per km.

Personnel: 123, comprising: PW 31; station staff 34; train crews 24; workshops 24; level crossing keepers 10.

Stations: Common with SNCF: 3
Manned stations: 22
Halts with shelter: 25
Halting points: 12

Locomotive List (revised)

<u>CFD No.</u>	<u>Type</u>	<u>Maker</u>	<u>No./Year</u>	<u>Notes</u>
45-48	0-4-4-OT	SACM	4206-9/90	Part of a series, 41-44 going to Montereau. Scrapped by 1949.
61-62	2-6-OT	Pinguely?	/91	Said built by Pinguely, but do not appear in Maker's list. 61 survived dumped until 1964.
63-64	0-4-4-OT	SACM	4274-5/91	63 survived dumped until c. 1964.
81-82	2-6-OT	Pinguely	111+3/02	Scrapped.
251	0-6-2T	Fives Lille	3272/06	To Lozère 1909.
401-02	0-6-6-OT	SLM	1405-6/02	401 extant 1968; 402 scrapped by 1960.
403-04	0-6-6-OT	SLM	1493-4/03	Both in service 1968.
405	0-6-6-OT	SLM	1670/05?	Scrapped c. 1964. Maker's No. subject to confirmation.
406-08	0-6-6-OT	SLM	1671-3/05	406/7 scrapped. 408 dumped 1968.
409-10	0-6-6-OT	SACM	7445-6/27	Scrapped c. 1964.
411-14	0-6-6-OT	SACM	7626-9/32	413/4 dumped 1968; 411/2 scrapped.

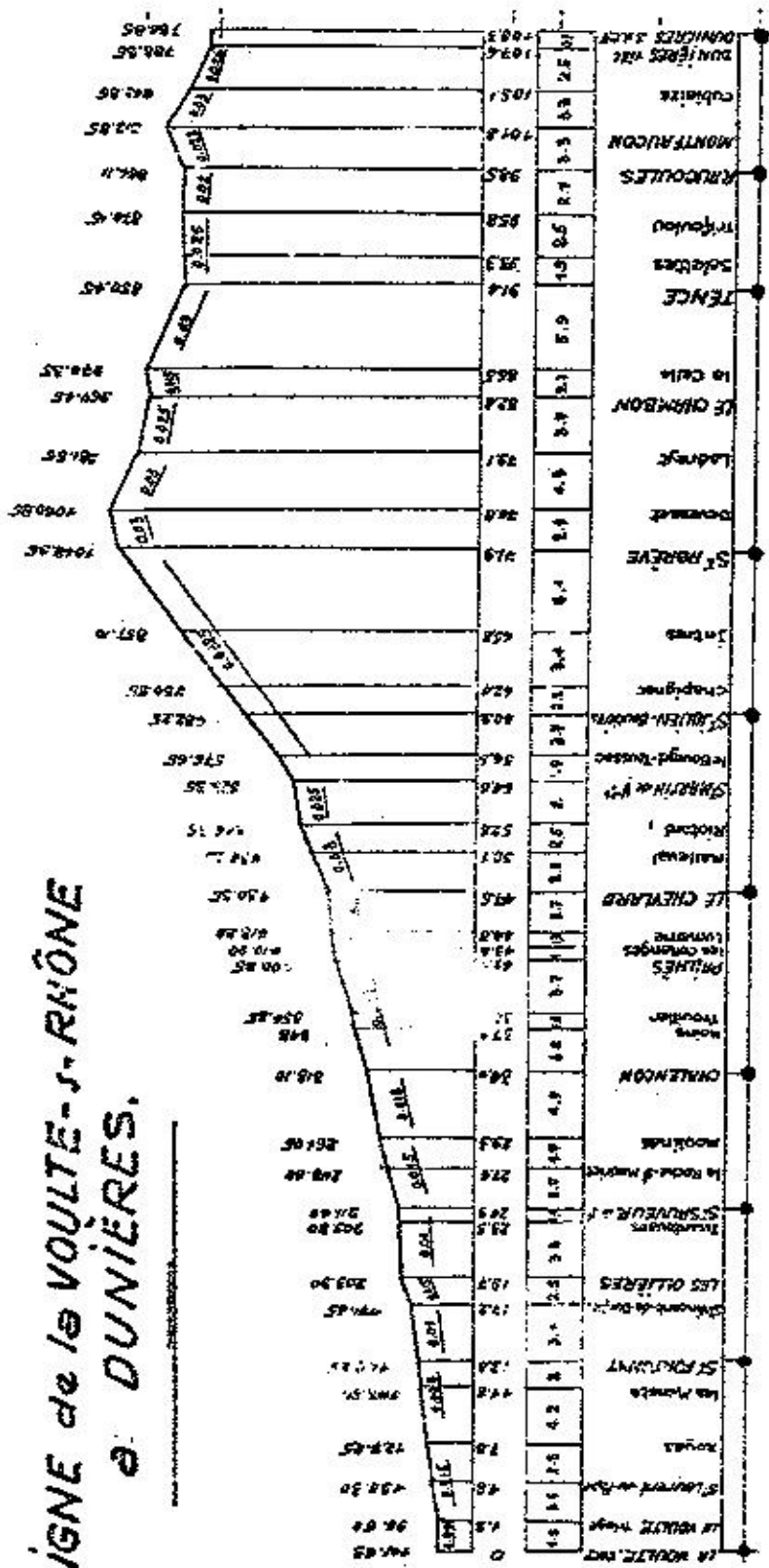
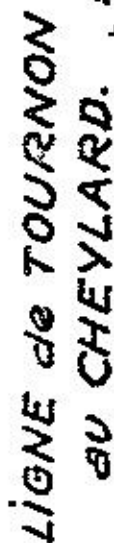
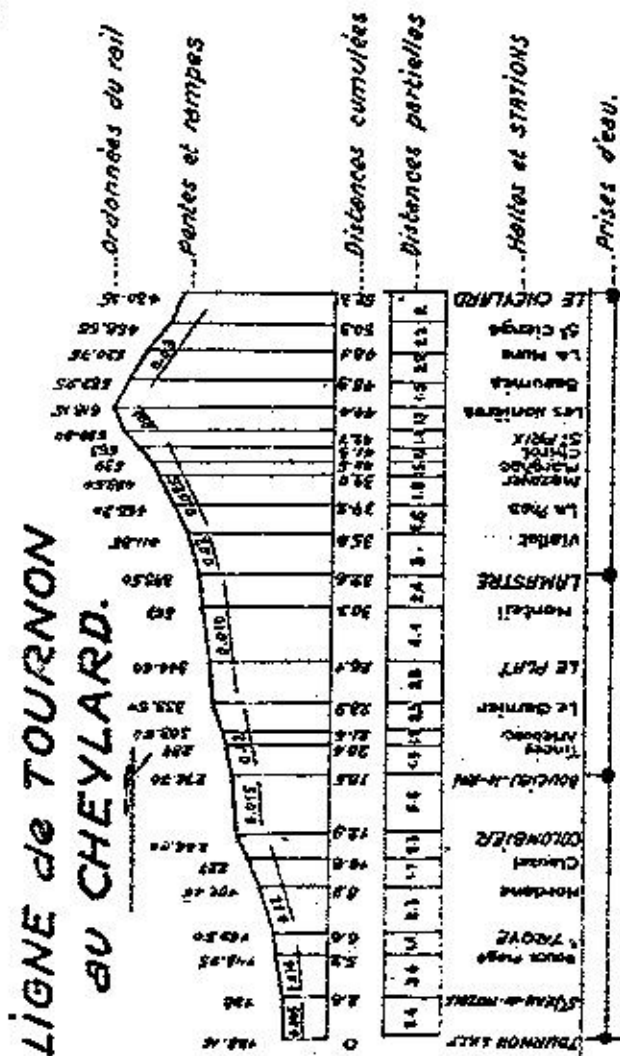
N.B. Certain of 321 class 2-4-4-OT were used on Vivarais, but for convenience all are listed under Lozère, for which the class was designed.

X	0-6-OD	CFD Montmirail	-	200hp) Possibly ex 2-6-OT
Y	0-6-OD	" "	-	200hp) Nos. 62 and 81.
13	0-6-OD	" "	-	150hp Ex Montereau.
040D403	B-B diesel	" "	/64	400hp New to line.
PE5	4-wh. P	Ets. Petolat	?	Ex CFD Saône et Loire (<u>not</u> Charentes)

Railcars

206-07	De Dion type MJ	Delivered new 1935.
211-13	Billard 150hp, type A150D	" " 1937/38.
222-24	Billard 150hp, type A150D2	" " 1937/38. Articulated.
313-16	Billard 100hp, type A80D	Ex Charentes 1951/52.

CFD du
VIVARAIS.
GRADIENT
PROFILES



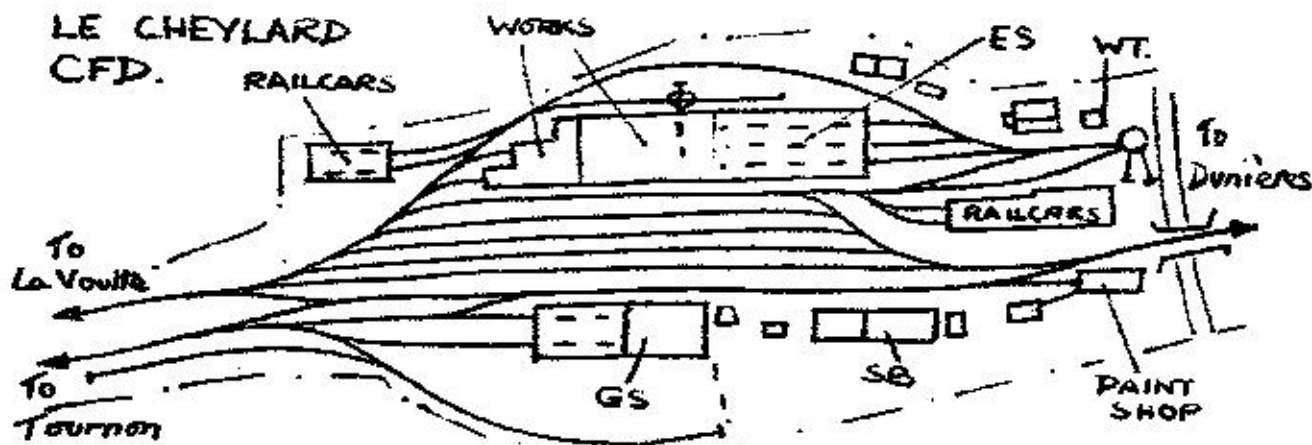
The CRC Farewell Trip

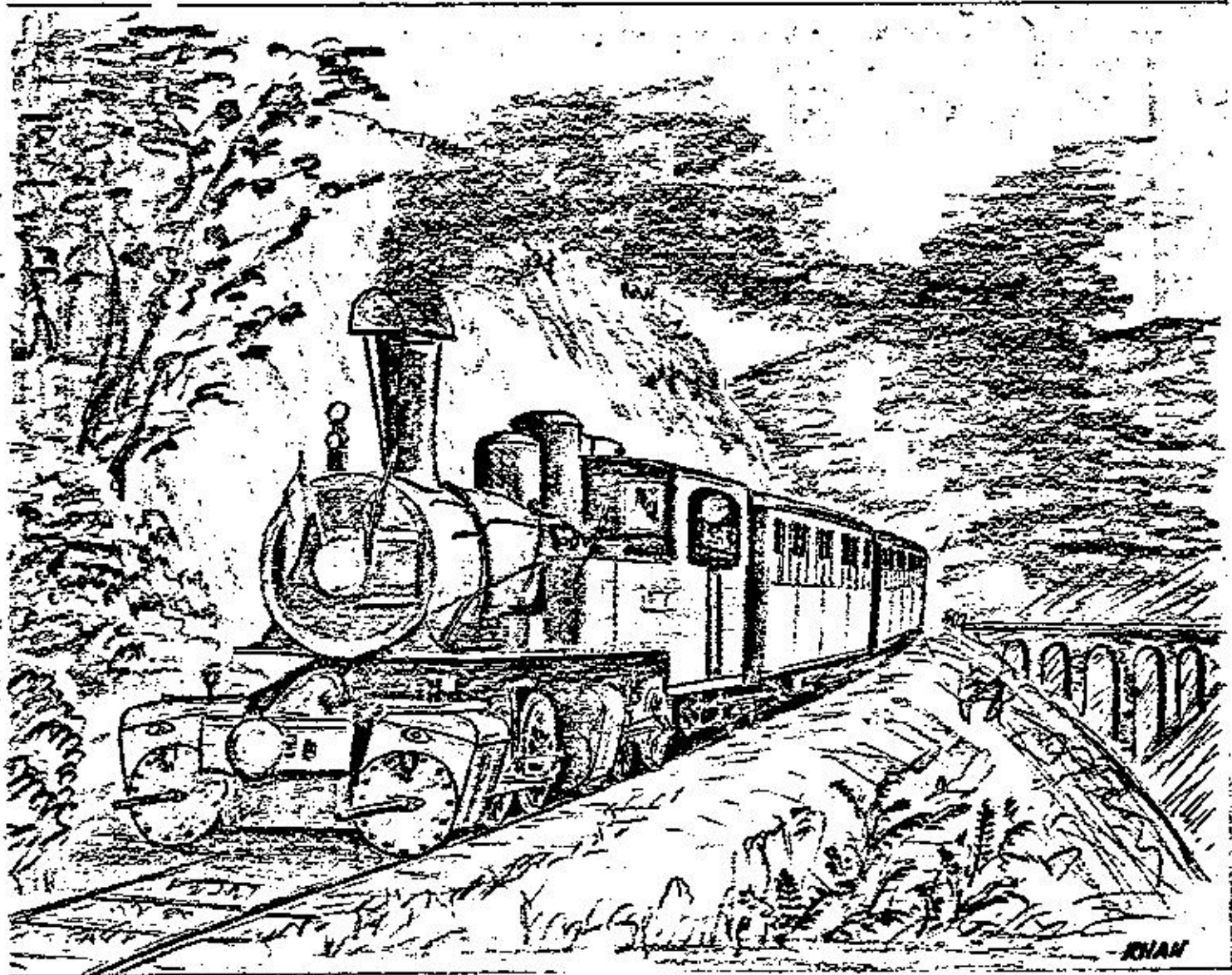
As many readers will know, the CRC trip to the Vivarais was postponed from the Spring Holiday because of the French strikes, but took place over the August Bank Holiday weekend. 100 English enthusiasts in all took part, and the party for the Vivarais special itself, on Sunday 1st September, was strengthened unexpectedly at Tournon by a crowd of FACS and local adherents. In consequence, the expected train of two bogie coaches - one rather spoilt photographically by anti-closure slogans - was strengthened by a beautifully restored 4-wheeler and then by a railcar trailer. Tournon yard itself was busy, and there is obviously a fair container traffic from Le Cheylard.

The trip took place in very good weather, and was apparently much enjoyed - although the CFD, while liberal with their photographic stops and run-pasts, tended to provide them unexpectedly and in sometimes awkward surroundings: and the Voice of Snell was more than once heard echoing off the mountains to chastise some over-enthusiastic Frenchman blocking the photographers' field of view. To judge from Lamastre and Le Cheylard yards, timber traffic is undoubtedly very heavy, and the plateau towns were just as obviously trying to get in their winter supplies before the line closed.

Everyone on the system was most helpful and, with a steam special of some sort running on most Sundays throughout the summer, had obviously had plenty of practice. Our train, so we were told, was only the second one to reach Dunières this year, and was almost certainly the last, since a case of buffer-locking occurred on the FACS train a fortnight later. This incident appears to have curtailed the programme, and in any case the staff was dwindling rapidly, making the provision of experienced crews difficult. (Although the CFD have the bus concession, the road side has its own staff, and railway personnel became unemployed as from 1st November.)

To give an idea of what was involved in running a special throughout the system, our train required two shifts, each working a 10 to 11-hour day. The ECS left Le Cheylard at 6.0am as a mixed goods - implying at least two hours' preparation previously - and that crew booked off at about 13.00hrs; while the second





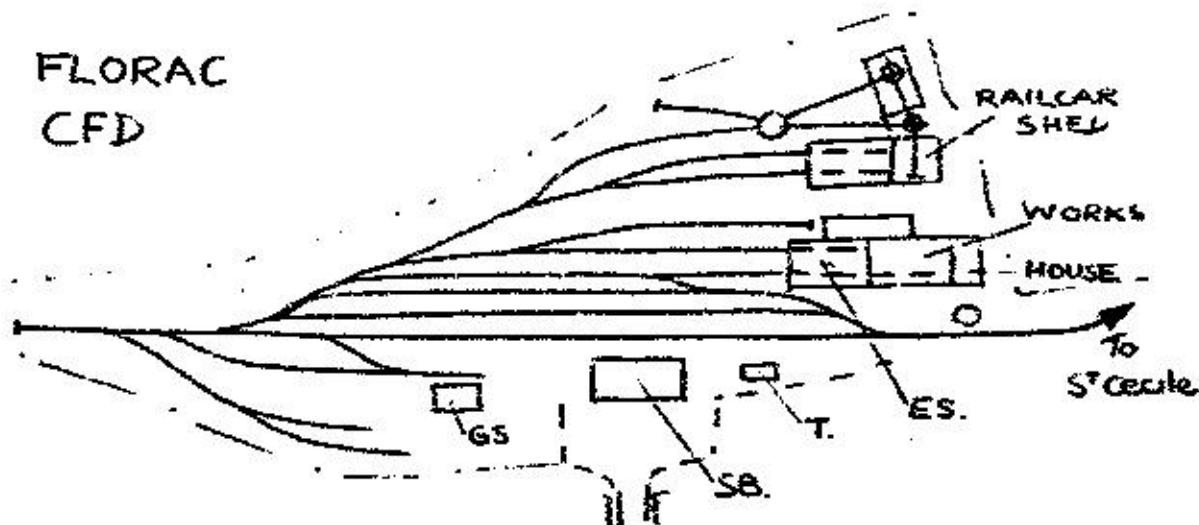
crew carried on to Dunières (booked arrival time 17.22) and then worked an ECS train back to Le Cheylard, arriving at 22.22.

Stock available at the time of our tour included all the railcars, locomotives 403 and 404 with 408 dead at Le Cheylard, diesels 040D403, X, Y, and 13, four bogie coaches, two 4-wheelers, and a 4-wheel saloon. The derelicts at Raucoules comprised 401 and 413/4.

CFD Ligne de la Lozère

This metre gauge railway was a straightforward branch, some 30 miles long and running westward from St. Cecile d'Andorge on the Ligne du Bourbonnais. It was conceded in 1908 to the CFD and opened throughout on 24th July 1909. It was originally equipped with 32X class Mallet 2-4-4-OTs, bogie coaches, and conventional CFD 4-wheel goods stock; and its history has been quite uneventful. It

FLORAC CFD



was always regarded as an integral part of the Réseau du Vivarais-Lozère, and both locomotives, stock and railcars have been freely exchanged as the list below shows.

The line was the main link with the outside world for its area, particularly for its terminus at Florac, a sleepy, grey little sous-préfecture above the Tarn gorges, and a thrice daily service was maintained almost up to the closure in April 1968. There are at present mutterings about preservation as a tourist attraction, but reports say that Florac station yard has already been converted into a car park and preservation is unlikely to succeed.

Route

The branch started at Ste.Cecile d'Andorge, a huddle of houses and a huge level crossing perched on the side of a hill - a "village" so small that the only shop is a mobile one which comes round twice a week. The Lozere line occupied one side of the SNCF station, sharing the up platform, and with its small locomotive shed alongside the SNCF line. It left in a northerly direction, before swinging round in a great arc over an elegant stone viaduct to climb west along the valley of a small river. This is not light railway country, and the line was quite massively engineered as it clung to the mountain side, the villages it officially served being some way off in the valley below. The most spectacular 'sight' was the huge horseshoe curve known as 'le Grand Boucle', a huge sweeping climb like that on the Vivarais near Intres. From the top you could toss a pebble almost straight down into the station forecourt at Cesse-enades, some 200ft. below.

Summit was at Col de Jalcreste (2721ft.) and thence the dusty pattern repeated itself, only this time with views to the right as the line descended the Tarnon valley to its terminus at the outskirts of Florac, nestled beneath the strange towering mases of the Causse Mejean. Here was the line's headquarters, a tall, four-square, dignified building with a low sprawling depot nearby. And here, too, until closure was one of the most courteous 'chefs' in Franco, a man who, although he was clearly not regretting the demise of his steam engines was certainly prepared to talk about them and show his records with pride.

Locomotives

<u>CFD No.</u>	<u>Type</u>	<u>Maker</u>	<u>No./Year</u>	<u>Arr.</u>	<u>Dep.</u>	<u>Remarks</u>
64	0-4-4-OT	SACM (B)	4275/91	18.2.16	18.5.19	(1)
81	2-6-OT	Pinguely	111/02	8.09	12.3.16	(2)
82	2-6-OT	Pinguely	113/02	14.3.29	?	(1) (3)
251	0-6-2T	Fives Lille	3272/06	16.8.09	21.2.16	(2)
				24.5.19	-	Scr. 1949
322	2-4-4-OT	SACM (B)	5821/08	5.7.45	-	Ex Vivarais Scr. 1956
323	2-4-4-OT	SACM (B)	5822/08	2.2.11	-	As for 322
324	2-4-4-OT	SACM (B)	5823/09	18.3.09	-	(4) Scr. c.1966
325	2-4-4-OT	SACM (B)	5824/09	21.3.09	-	Scr. c.1966

Notes:- (1) Vivarais locomotive, returned to that line.
(2) To Revigny, for military service around Verdun, thence to Vivarais.
(3) Used in building Lozère line.
(4) Loaned to CP 1944/45

In addition to the above locomotives, 408 spent two years (1909-11) on the Lozère, and 409/10 were allocated to it from 1932 to 1942. The 32X class were designed for the Lozère, but 321 (Fives Lille 5820/08) never left the Vivarais.

Diesels: Two 0-6-ODM, rebuilt from steam, Nos. 62 and 70. Rebuilt by CFD des Charentes, 1949, and sent to Florac in 1951 (70) and 1953 (62). Stored 1968.

Railcars: De Dion Type NR 201-2 New to Florac 1935
204-5 Built 1935; to Florac 1950
Billard car 314 also worked on the line during the 1960's.
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TURIN RAILWAYS

by P.M. Kalla-Bishop

The first 10km. of the North Turin Railway from Turin Ponte Mosca to Borgaro was closed for over two years between 1963 and 1965, it is believed in connection with building motorways. The electric trains were restricted during the period, and five pre-war diesel railcars were acquired from SATTI's Settimo-Pont etc. line. At the same time the steam locomotives vanished from the stock statistics; their shed is about 50 yards off the platform end at Ponte Mosca. Since the re-start of full electric train services the statistics do not show the re-instatement of the steam locomotives, but a visit in September 1968 found them still at the shed and apparently working. They comprise two 0-6-0 well tanks, Breda 1675 and 1677 of 1915, Nos. 21 and 23, and the veteran 0-6-0

side tank No.6 "Lanzo", Henschel 1636 of 1883. This latter locomotive is technically interesting as it has outside Gooch valve gear. The 44km. North Turin was the first in Italy to be electrified with high-voltage d.c., in this case 4,000V, which is still perhaps the highest used anywhere. The original 1920-built TIBB Bo-Bo electric locomotives, Nos.11-15, and the two motor-coaches of the same date, are still in service.

SATTI's railway runs 53km. from Sattimo to Pont, with a branch from Rivarolo, about halfway, 8km. to Castellamonte. The railway has running powers over 12km. of the FS to Turin Porta Susa. Trains are worked by ALn668 D1-D10, Fiat 1962-built cream and red diesel-mechanical railcars. There is also a diesel-electric B-B locomotive, No.DEL01 of 750hp., in conventional khaki and brown, and built by Fiat and CGE in 1964. This locomotive has two electric motors slung beneath the body, each motor driving a bogie through cardan shafts, and pneumatic controls arranged so that the locomotive can work in multiple-unit with the railcars if required. Two steam locomotives are stored in reserve at the railway's Rivarolo depot, both second-hand and acquired in 1961. They are 0-6-0 well tanks; No.24 ex-Consortio Cooperativa Reggiane Railways No.8, built Reggiane 2/10, and No.312, ex-Sud-Est Railways No.312, Officine Meccaniche Italiane Reggio Emilia 18/13, presumably intended to be North Turin No.25.

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NOTES AND NEWS

AUSTRIA

ÖBB - Passenger services were discontinued on the "Waldviertelbahn" (the Grund group of lines) with the commencement of the winter timetable. Goods still run.

Zillertalbahn - The new extension has been in use for some months, one or two special goods trains daily being provided, hauled by D8 or D9. Maximum load appears to be 7 cement wagons on transporters plus some n.g. vans. Railcars, D8/9 and steam (Nos.2,3 and 5) were all used on passenger working - oddly the regular steam workings were the first and last trains in each direction! No.1 is withdrawn; D6 and D7 are local shunters. Two ex-Kreiensen-Osterode coaches (21/2) were being regauged in June, and bogie railcar No.2 entered service during the summer after an overhaul and repaint. The ex-RTM cars are still in store, and the ex-Payerbach electric car appears to be semi-derelict.

Murtalbahn - This line celebrates its 75-year jubilee in 1969, and special attractions are planned. A small exhibition is to be held in Murau depot, and from about the middle of June to the beginning of September one or two special steam trains will run each week. Steam locomotives U40, U43, Kh111 and Stainz 2 will be available. Of these, Stainz 2, an 0-4-OT of 1892 can be hired at any time from April 1969 for private driving, with an old passenger coach also if so desired. Any enthusiast will be able to become an amateur driver of this locomotive over the whole length of the line (Unzmarkt to Mauterndorf). The price is not yet finally fixed, but is expected to be about 400 Austrian schillings (about £6/10/0) per hour, and it is hoped that many enthusiasts will take advantage of the offer. Further details will be available from the Fremdenverkehrsverein at Murau in due course.

BELGIUM

TTA - Type 18 locomotive 1076 has been delivered to the line and has been in service on several weekends. Traffic is increasing satisfactorily, but the Lamormenil extension is still held up by failure to get round a factory at Dochamps which quite illegally engulfed part of the trackbed during its period of dereliction. A stock barn has been erected at Blier, now HQ of the line.

FRANCE

CFD du Vivarais - The steam excursion on 15.9.68 suffered a case of buffer locking, and plans for further excursions were immediately cancelled. Even the FACS train on 22.9.68 was only able to have a token steam working from Chalençon to Le Cheylard.

GERMANY (FDR)

Preservation work continues to increase, and it seems likely that activity in 1969 will concentrate on :- VGH at Bruchhausen; Chiemseebahn (preserved metre gauge stock); and various lines of the Süd-West Deutsche Eisenbahn. The only service for which firm particulars are available is on the Nebenbahn Achern-Ottenhöfen of the SWEG. Following the success of the special steam service on this line in 1968, similar trains are to be run during 1969 on the following Sundays:- 11th and 25th May, 8th and 22nd June, 6th and 20th July, 3rd, 17th and 31st August, and 14th September. Timings will appear in the Summer 1969 Kursbuch in Table 30ln.

On the DB narrow gauge lines: Wagold-Altensteig is lifted, the diesel going to the MBE and the O-10-OT being cut up; Schussenried-Buchau is diesel worked, with one mallet in reserve and one derelict; Biberach-Ochsenhausen has no change; Marbach-Heilbronn has a diesel, with 3 or 4 O-10-OTs still workable at Beilstein and one derelict. Sylt is flourishing with all the Herforder cars and has been indulging in a little "chopping" of superfluous stock. The Plottenberg railcar has gone, as has one of the original Wismars.

GERMANY (DDR)

All narrow gauge is scheduled for scrapping by 1975, except for the Rügen lines and two branches from Zittau.

SPAIN

Gerona-Olot - Only Nos. 21-24 are now steamable. The mid-day mixed runs from Gerona to Amer only, with a railcar connection to Olot.

ROUMANIA

The following notes show the position on narrow gauge lines in the second half of June 1968.

Odobesti-Burca - Quite flourishing, with two mixed trains each way each day, most of the traffic being timber. When visited, the line was being worked by an elderly O-8-OT, built, according to the crew, in Germany in 1910, but it was stated that the line was to be dieselised in July.

Arad-Podgoria - Very heavily used by passengers. The ancient electric railcars are still at work.

Satu Mare-Bicsad - O-8-O tender locomotives of both Polish and, it is believed, Roumanian origin work the line, helped out by a Resita O-8-OT. Passenger, general freight and timber traffic were very heavy. Local information was that the whole Satu Mare system would be dieselised within two years.

Satu Mare-Somcuta Mare - Worked by Polish-built 0-8-0 tender engines. There are two mixed trains a day over the whole line.

Ghilyaci-Ardu - Again worked by Polish-built 0-8-0s. Three mixed trains a day are run, one of which each way connect with "commuter" trains to and from Satu Mare, and so are packed out with workers.

Turda-Abrud - Now fully dieselised, all trains being worked by class L35H. All types of traffic are heavy.

Alba Iulia-Zlatna - The three passenger trains each way daily are well filled and worked by 0-6-2Ts of Austrian design, similar to the 298.100 class but, according to the crew, built in Hungary. Freight traffic is heavy, and worked by 0-8-0Ts.

Sibiu-Agnita - This line formerly continued to Sighisoara, but is now closed completely beyond Agnita. Only one of the Hungarian 0-6-0s was working, and the rest were stored out of use. Other trains were worked by various classes of 0-8-0Ts, although there was a German-looking 0-6-2T shunting at Sibiu. Identifying the builders of Roumanian locomotives is very difficult, owing to the CFR habit of removing all foreign builder's plates.

Cornăţel-Vurpăr - This is a branch from the Agnita line, and is worked by any engine which Sibiu may happen to have spare. Traffic was heavy on both Sibiu lines, with separate freight trains on the Agnita line.

Sibiu-Răsinari - This is an extension to the Sibiu tram route, and runs for several miles through the woods south-west of Sibiu, right up to the foothills of the Cibin mountains. It is worked by superannuated Sibiu trams.

Ţirgu Mureş-Praid - The service consists of one 'express' daily, worked by a Roumanian 0-8-0, and one local mixed train, worked by a Resita 0-8-0T. Traffic is reasonable.

Ţirgu Mureş-Mihocul de Cîmpie - This line has one passenger train each way, worked by a Resita 0-8-0T, traffic being heavy. The train crews were very unfriendly.

Ţirgu Mureş-Lechinta - There is one mixed train daily, outwards in the evening and returning at night.

Reghin-Laposna - This is a very busy forestry line, worked by various diesels and 0-8-0Ts. Passenger trains are worked by the smaller diesels, with open and enclosed coaches, plus timber wagons should the numbers warrant it. The staff are friendly, but attempts at photography at Reghin are averted by referring visitors to the motive power chief's office at Reghin, who refers them to the line's chief at Reghin, who refers them to the Forestry HQ in Ţirgu Mureş, and so ad infinitum.

BULGARIA

The narrow-gauge line from Cervenbreg to Orjahovo still possesses steam in the shape of the 600 class 2-10-2Ts, plus a mystery 0-10-0T numbered 503 shunting at Cervenbreg. Most passenger workings however are now by railcar. The other narrow-gauge line, Septemvri-Dobrinishte, is all-diesel, except possibly for one or two spare 2-10-2Ts.

JUGOSLAVIA

There has been a purge of narrow-gauge lines, and the following were closed from 26th May, or in some cases earlier:- Belgrade (Cukarica) to Lajkovac,

Paraćin to Boljevac, Han Pijesak to Olovo, Novo Modran to Ugljevik, Šipovo to Mlinište, Lazarevac to Kolubara, Požarevac to Ladne Vode, Metovnica to Bor, Kačanik to Vrbeštica, Donji Mihaljac to Podravska Slatina, Mislavac to Voštin and Drenovac, Teslić - Doboj - Derвента, Karanovac to Gračanica, Zrenjanin to Radojevo, Čuprija to Senjski Rudnik, Moslavina to Sl. Orahovica. It is understood that the remainder of the Paraćin to Zaječar and Bosanski Brod to Teslić lines will follow after road improvements; the closures of parts of these lines have already eliminated the remaining 2-6-6-0 Mallets and 0-6-2T Klosses respectively. However, on 20th June the last active locomotive on the Teslić to Derвента section, which was already being demolished, was Klose 189.004, shunting energetically in the yard at Boboj, before leaving equally energetically on a clearing-up train towards Teslić which outdistanced pursuit by car (over an admittedly appalling road). This was undoubtedly the last of these unique and extraordinary machines at work anywhere. Despite closure of the Belgrade end, the Sarajevo-Čačak section remains very busy, and although locomotives are invariably 83 class 0-8-2s or 85 2-8-2s, while new diesel MU sets have begun to appear, this is certainly the premier Yugoslav narrow gauge line. The Lašva-Jajce line, with its rack section at Travnik, remains but with a reduced service, and is probably due for early closure.

PUBLICATIONS RECEIVED (Continued from Page 2.)

INDUSTRIAL LOCOMOTIVES AND RAILWAYS OF SPAIN AND PORTUGAL - Edited by R.S.

Fraser for the Industrial Railway Society: 86 pages 8 $\frac{1}{4}$ " x 5 $\frac{1}{2}$ ", 1 map, 16 photographs. Obtainable from V.J. Bradley, 20 Graham Avenue, Gt. Sutton, Wirral, Cheshire, price 10/- post paid.

Regular readers of the Journal will need no introduction to Ron Fraser, as he contributed a two-part article on Spanish industrial locomotives not long ago. In this book he lists all known industrial locomotives, past and present, in the Iberian peninsular and, whilst the information is not 100% complete, particularly on the historical side, it represents a very praiseworthy effort. The Spanish portion of the book is divided into provinces (clearly shown on the two-page map) and for each locomotive-owning firm there is a brief description of its railway system followed by a list of its locomotives. Similar details are provided for Portugal, but these occupy only four pages, such is the paucity of industrial locomotives in that country. The illustrations depict an interesting and representative selection of the locomotives listed.

SPANISH NARROW GAUGE 1967/68 - Compiled by M.A. Darbyshire: 14 pages + 4 pages supplements, foolscap duplicated. Obtainable from the compiler at 44 Brocon Tower, Guild Close, Birmingham, price 2/6d post paid.

This list should fulfil a definite need, as all three of the recognized sources of information on the Spanish narrow gauge are now out of print and to some extent outdated. "Steam on the Sierra", whilst not entirely accurate, was the only publication covering the whole country, and it is on this that the present document is based. It lists all locomotives known to be still in existence on narrow gauge public railways, and the corrections and additions to the main list which appear in a supplement eliminate most of the errors. An unsatisfactory feature of the main list is that some locomotives are shown under their former not their present owners e.g. the two OCC locomotives now on the SFG, and the abbreviations for some loco-builders are not those normally used. However, at the modest price of 2/6d, the list should prove popular with most enthusiasts interested in the narrow gauge in Spain.

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