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PRICE ONE SHILLING

JUGOSLAVIAN STATE RAILWAYS (JDZ)

STEAM LOCOMOTIVES

PART IV (CONCLUSION)

JDZ CLASS	TYPE	ORIGINATING RAILWAY	PREVIOUS CLASS	MAIN FEATURES	NOTES
170.001	0-4-0T	CDZ	10007	2 CYL.	
171.001-05	0-4-0T	CDZ	2100-	2 CYL.	
172.001-05	0-4-0T	CDZ	10001	2 CYL.	
173.001-15	0-4-0T	BHLB	IIa2	2 CYL.	Rebuilt ex back-to-back
174.001-04	0-4-0	MAV	289	2 CYL.	
175.001	0-4-0T+ 0-4-0T	BHLB	IIa2	2+2 CYL.	Back-to-back
176.001-07	2-4-0T	BHLB	IIa3	2 CYL.	
177.001	2-4-2T	CDZ	10701	?	
178.001-08	2-4-2	BHLB	IIa4	2 CYL.COMP	Inside cylinders
180.001	0-6-0T	CDZ	11010	2 CYL.	
181.001-03	0-6-0T	MAV	-	2 CYL.	Ex Heeresbahn?
182.001-02	0-6-0	MAV	388	2 CYL.	
183.001	0-6-0T	?	?	?	
184.001	0-6-0T	MAV	No. 3351	2 CYL.	Ex Heeresbahn?
185.001-45	0-6-0	BHLB	IIIa5	2 CYL.COMP	Klose; inside cyls.
186.001-11	0-6-0	BHLB	IIIa5	2 CYL.COMP	Klose; inside cyls.
187.001	0-6-2T	SUD	-	2 CYL.	Ex Eisenkappel-Kühnsdorf
188.001-04	0-6-2T	KK St.B	U	2 CYL.	
189.001-34	0-6-2T	BHLB	IIIa4	2 CYL.	Klose; stutztender; inside cylinders
190.001	0-8-0T	CDZ	12011	?	
191.001	0-10-2T	BHLB	Vc6	2 CYL	Klose; stutztender; inside cylinders
192.001-	2-4-4-0T	AB	-	4 CYL.COMP	Mallet
193.001-03?	0-10-0T	CDZ	15101	?	
194.	?	?	?	?	

JDZ CLASS	TYPE	ORIGINATING RAILWAY	PREVIOUS CLASS	MAIN FEATURES	NOTES
195.001-08	0-6-2T	BHLB	IIIb4	4 CYL.	Rack and adhesion
196.001-02	0-4-6-0	BHLB	IIIc5	4 CYL.	Rack and adhesion; Mallet

METRE GAUGE (SDV)

(These locomotives have had a recent reclassification so that, for example, 51 to 59 become 50-51, 50-52 etc.)

10-12	0-4-0T	SDV	-	2 CYL.	
21-25	0-4-0T	SDV	-	2 CYL.	
(30)31-34	0-6-0T	SDV	-	2 CYL.	
(40)41-43	0-6-2T	SDV	-	2 CYL.	
(50)51-59	0-8-0T	SDV	-	2 CYL.	
(60)61-62	0-8-0	SDV	-	2 CYL.	
(70)71-73	0-8-0T	SDV	-	2 CYL.	
(80)81	0-12-0T	SDV	-	2 CYL.	Colliery Loco.

600 MM GAUGE

99.2001-	0-4-0T		-	2 CYL.
99.3001-	0-6-0T		-	2 CYL.
99.4001-200	0-8-0T	DF	-	2 CYL.

ADDITIONAL ABBREVIATIONS

(See also page 4 of Journals Nos. 1 & 2, and page 5 of Journal No. 3)

AB Antivari Bahn.

SDV Slavonia Drav Vasut.

DF Deutsche Feldbahn.

In the next issue - Italian Steam Locomotives (Part I) by P.M. Kalla-Bishop

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ERRATA AND ADDITIONAL INFORMATION

SPRING 1963 - "The 2-10-2T in Europe" - Two and not one D.R. narrow gauge 2-10-2T went to Norway, Nos. 99.291 and 99.292. The Kerkerbachbahn had two 2-10-2T - No. 15 Henschel 26169/41; No. 16 Jung 9577/42.

AUTUMN 1963 - The cover illustration was J.D.Z. 196 class; the 0-10-0 sketch on page 5 was J.D.Z. 134 class.

BAVARIAN LOKALBAHN LOCOMOTIVES

The Bavarian State Railways built, from about 1880 onwards, a large number of light railways for local traffic, called "lokalbahnen", there being few private railways in the state. Such private railways as existed were largely run by a company called the Lokalbahn A.G., with headquarters at München. Almost without exception, the lokalbahnen were sensibly constructed to standard gauge, allowing rolling stock to be run through without resort to transporter bogies or wagons.

From 1880 to 1894 two classes of locomotive were supplied, 0-4-0T and 0-6-0T based on standard Krauss industrial types, classed DVI and DVII, later becoming DR 98.7501-26 and 98.7601-92 respectively. 98.7639 was still shed pilot at Nürnberg in 1955, probably the last survivor of the two classes. In 1888 there came the first of an 0-6-2T class DVIII which set the tone for the future, although the particular class was not multiplied, the DR numbers being 98.661-669.

Two similar batches followed, plus some locomotives for the Bavarian Palatinate (Pfälz), and these can be conveniently listed below.

KBSB class DVIII	Built 1898-1903	DR 98.671-9
KBSB class DX	Built 1890-1893	DR 98.7701-9
Pfälz class $T4^{I}$	Built 1895-1897	DR 98.651-7

All these preceding 0-6-2T weighed from 43 to 47 tons, but a lighter class was designed, proving extremely useful. Over 150 were built, mainly for Bavaria proper, but with 3 for the Pfälz net. During the building of this class, the KBSB changed its classification system, and the engines, which were turned out from 1895 to 1914, are identified as below.

Pfälz class $T4^{II}$	DR 98.401-403
KBSB class DXI	DR 98.411-556
KBSB class PtL3/4	DR 98.561-568

Many of these survived into the 1950's, and some may still be lying around today. The final type of 0-6-2T, and also, at 51 tons, the heaviest, were for the Pfälz section, becoming DR 98.681-8, built in 1908-10.

For the heaviest duties, a class of 0-4-4-0T Mallets were built in 1899-1908, class BBII, and whilst, at 42 tons, they were lighter than certain of the 0-6-2T, all the weight was available for adhesion. DR numbered these 98.701-31.

The first superheated lokalbahn engines were a series of freaks built for very light passenger traffic. First were a batch of Krauss 0-4-0T with inside cylinders driving a jackshaft, coupled by rods to the two main axles. These locomotives, built 1905-06, had a tram engine top but no covering below the running plate. Designed for one man operation, coal was carried in a hopper and could be fed to the grate by means of a crude flap arrangement.

Maffei followed in 1906-08 with some further 0-4-0T having central cylinders with opposed pistons driving each wheel, the axles being cranked to accomodate inside coupling rods. The valve gear was mounted on the rear wheels, and a set of wheels and motion, with the cylinders in section is displayed in the Museum in Nürnberg.

The third variety, by Krauss in 1908-09, retained the "Tramway" top but had two outside cylinders, driving an intermediate jackshaft. Yet a fourth class, also by Krauss, was built in 1909-14 and whilst continuing the "Tramway" top, the mechanism reverted to two normal outside cylinders, driving the trailing axle. All classes had a long wheelbase for stability, and the rather complicated drive on the first three classes was doubtless an attempt to prevent overlong, and consequently heavy, coupling and connecting rods, which might have been difficult to balance with the small wheels used. Tabulated details are below:-

KBSB numbers	Cylinders	Wheelbase	DR numbers
4001-24	4 outside (opposed)	2900 mm.	98.361-383
4501-06	2 inside, jackshaft	3200 mm.	98.301-306 *
4507-35	2 outside, jackshaft	3200 mm.	98.301-309
4536-48	2 outside	2700 mm.	98.310-322

* Scrapped in 1925, before renumbering.

The third series, whilst suffering heavy withdrawals in early days, became the final survivors, 98.301 and 98.307 lasting until about 1960 on the branch from Georgensgmünd to Spalt, being stationed at Nürnberg.

After getting these incredible machines into service, the Bavarians returned to more normal propulsion and 117 useful 0-8-0T were built between 1911 and 1928, the first 97 carrying KBSB numbers 2601-97, the remainder being delivered to the DR, who renumbered the class 98.801-917. In order to increase coal and water capacity, the Reichsbahn developed the class into an 0-8-2T, using the same cylinders, boiler and motion, and built 45, Nos. 98.1001-45 between 1929 and 1933.

Finally in 1933-37, the DR rebuilt 0-8-0T 98.898-98.917 to 2-8-0T, renumbering them 98.1101-20.

The LAG locomotives resembled in style those of the KBSB, being built by Krauss, but the favourite type was the 2-6-0T rather than the 0-6-2T, and two-cylinder compounds were rife. Of the locomotives which came into DR stock on 1st August 1938, the oldest were seven compound 2-6-0T of 1890-97 vintage, DR 98.7301-07. Of these, 98.7306 was at Nürnberg in 1952, possibly the last survivor of the LAG 2-6-0T. Two of the same class, differing but slightly and built in 1892, became DR 98.7201-02, whilst a simple expansion version, of 1895-97 vintage, became 98.7401-04. A pair of 0-6-0T from the Augsburger Lokalbahn, both compounds, were taken into LAG stock, later becoming DR 98.7101-02, the smallest type to survive nationalisation.

A batch of 0-6-2T, similar to the KBSB locomotives but compounded, was built in 1897-1910, and the DR for some extraordinary reason split them up into 98.1501-06 and 98.7601-05. The last 2-6-0T to appear were a couple of peculiar compounds built in 1900, with short side tanks right at the front, abreast of the smokebox. DR, again inexplicably, tagged them on to the end of an earlier class which had already been split, numbering them 98.7308-09.

No serious attempt was made to follow the KBSB experiment into small four-wheeled semi-tram engines, although a short-lived version of the 2-2-0T was supplied. This single driver at least introduced superheating to the LAG, and two of the Bavarian classes, the 0-8-0T and the 0-8-2T, were supplied in 1922 and 1935-36 respectively. The final LAG class was a further development along the same lines, a 2-8-2T, two being built in 1937, just before the Reichsbahn take-over.

These final LAG classes were as follows:-

Type	DR numbers
0-8-0T	98.1601-02
0-8-2T	98.1701-03
2-8-2T	98.1801-02

All were in existence until fairly recently in the Lindau area, the two 2-8-2T being seen in service in 1959.

The Front Cover shows two of the more exotic species of 0-4-0T double-heading a local passenger train.

-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-o-

THE LOCOMOTIVES OF THE GREEK STATE RAILWAYS, PELOPONNESE REGION, AND THEIR WORK

PART I - THE TENDER LOCOMOTIVES

By D. Dixon.

The metre-gauge system, known as the S.P.A.P. before its recent amalgamation with the State Railways, and now as the Peloponnese Region of the S.E.K., today operates 719 kilometres of its own line, plus 61 kms. of the former North-Western Railway of Greece, and 23 kms. of 750 mm. track on the partly-rack branch to Kalavrita. Railcars cover most main-line passenger workings, and tank locomotives, mostly 2-6-0T do almost anything. But the heavy traffic is covered by a fleet of thirty eight-coupled tender locomotives, made

up as follows:-

(a) Class E^s 2-8-0, 12 locomotives

7711-13	Borsig 9006-08/1914
7714	Borsig 8281/1912
7721-25	Linke-Hofmann-Lauchhammer 3034-38/1925
7726-28	Henschel 23058-60/1937

(b) Class Δ^{α} 2-8-2, 8 locomotives

7101-08	Vulcan (U.S.) 4700-07/1947

(c) Class Δ^{ι} 2-8-2, 10 locomotives

7111-20	Breda 2592-2601/1951

All locomotives are considered as being equally powerful, and are allowed 155 tons unaided, 220 tons with a banker where needed, or 400 tons when double-headed. Nos. 7711-14 are coal-burners with four-wheel tenders; the remainder are oil-fired. They are manned by a single shift, with the resulting good mechanical condition and smart appearance, but at the expense of very long hours for the crews, as can be seen below. Italian 2-8-2 Nos. 7111-15/8/9 are allocated to Patras, the rest being based on Piraeus. Incidentally, the prefix '7' is a result of the amalgamation of S.P.A.P. with S.E.K., No. 7111 for instance being formerly No. 111.

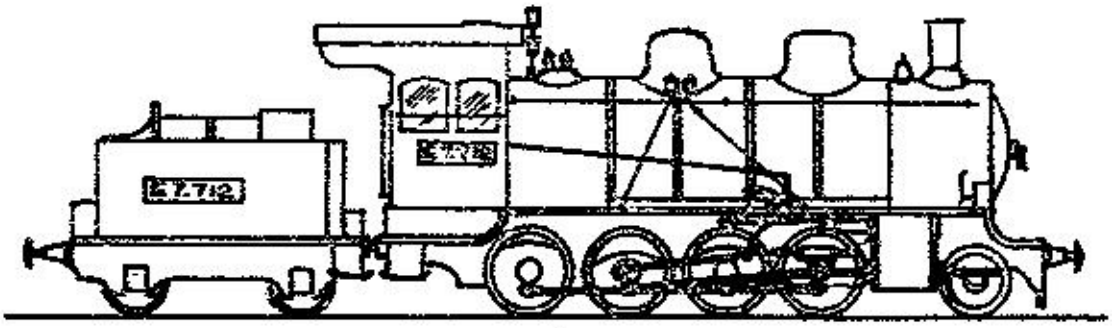
All tender locomotives arrive in Tripolis facing east, and depart facing west, as they work tender-first between Tripolis and a reversing point in the mountains at Sirtis in the Arghos direction. Only Piraeus and Patras have turntables large enough for tender locomotives; otherwise these use triangles at Corinth (when piloting to or from Piraeus), Tripolis, Asprochoma (near Kalamata and a triangular junction with the Messini branch), and Kalonero (triangular junction with the branch to Kiparissia, whither the locomotives work).

The trains worked are as follows:-

(1) Passenger	151/2	(1/2)	Piraeus-Kiparissia and vice-versa
	551/2	(201/2)	Piraeus-Kalamata via Tripolis and v.v.
(2) Mixed	671/2	(281/2)	Tripolis-Kalamata and v.v.
(3) Freight	181/2	(151/4)	Piraeus-Pirghos and v.v.
	191/2	(153/2)	Piraeus-Patras(Agh. Andreas) and v.v.
	591	(21/221)	Piraeus-Corinth-Tripolis
	592	(222/22)	Tripolis-Corinth-Piraeus
	285/6	(451/2)	Patras-Kalamata and v.v.

All train working numbers have recently been altered to avoid confliction with those on S.E.K. In the list above, the new numbers are shown first, followed, in brackets, by the old, which have been in use for a number of years. Trains 181/2 and 285/6 are worked by tender locomotives for only part of their journeys. Agh. Andreas is the goods station just to the west of Patras.

Piraeus depot uses its locomotives on an 18-day diagram, including four rest-days, with five locomotives spare (or in works). The cycle of workings is



Class E^s 2-8-0

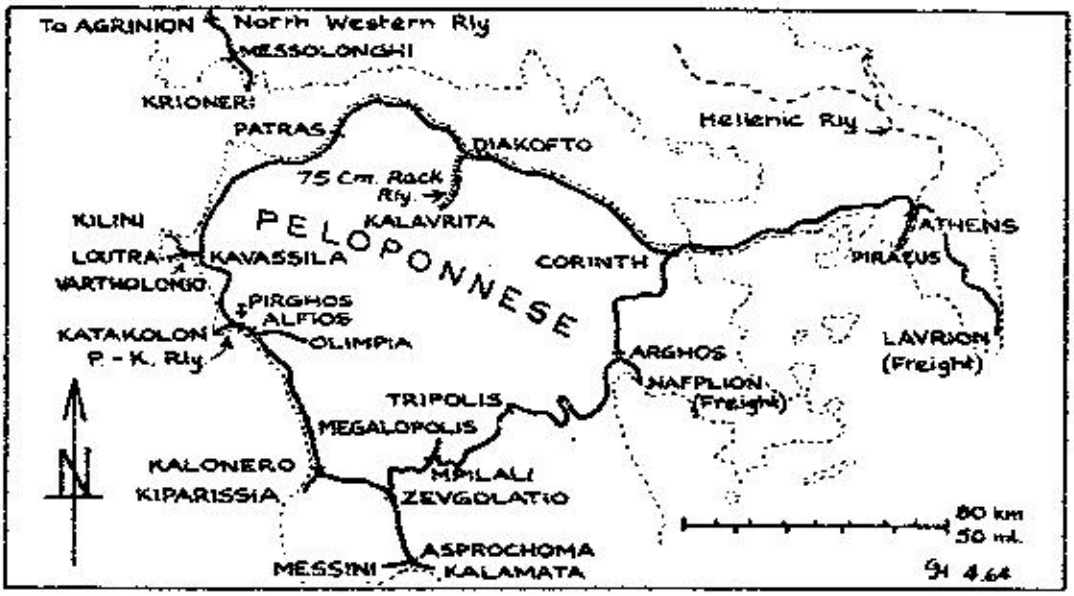
composed as follows:-

Day	Kms.	Train	From (dep)	To (arr)
1	231	181	Piraeus 0.55	Agh. Andreas 13.14
2	230	192	Patras 6.30	Piraeus *
3		Rest		
4	99	591	Piraeus 7.15	Corinth 12.39
	121	591	Corinth 13.02	Tripolis 21.23
5	115	551	Tripolis 16.36	Kalamata 20.53
6	115	672	Kalamata 13.05	Tripolis 21.04
7	121	592	Tripolis 12.00	Corinth 18.40
	99	592	Corinth 22.31	Piraeus 2.20 (next day)
8		Rest		
9	231	191	Piraeus 3.35	Agh. Andreas *
10	231	152	Agh. Andreas 11.11	Piraeus 20.29
11	230	151	Piraeus 6.36	Patras 15.44
12	231	182	Agh. Andreas 14.50	Piraeus 1.46 (next day)
13		Rest		
14	220	551	Piraeus 7.05	Tripolis 16.23
15	115	671	Tripolis 5.55	Kalamata 13.03
16	115	552	Kalamata 6.08	Tripolis 10.50
17	220	552	Tripolis 11.05	Piraeus 19.43
18		Rest		

* Times unspecified in working timetable

The total distance covered is 2720 kms. in 18 days, an average of 151 kms., or 94½ miles, per day; but the work, particularly on the Tripolis line, makes this a tough proposition for both crews and locomotives. Over nine hours in the mountains on day 14, for instance, with much climbing at 1 in 40, is not an enviable occupation.

Patras uses its seven engines more lightly, with only four turns, thus:-



Day	Kms.	Train	From (dep)	To (arr)
1	155	285	Patras 5.35	Kalonero 15.47
2	160	152	Kiparissia 4.48	Agh. Andreas 11.03
3	161	151	Patras 15.50	Kiparissia 22.33
4	155	286	Kalonero 11.53	Patras 23.03
5		Rest		

Kalonero is the junction just north of Kiparissia for the line across to Zevgolatio and Kalamata, where a tank from Kalamata replaces the 2-8-2. The tender engine, with any traffic for there, then works through to Kiparissia as follows:-

No. 672 *	Kiparissia dep 11.15	Kalonero arr 11.27
No. 673 *	Kalonero dep 17.00	Kiparissia arr 17.13

* Old train numbers - new ones unknown.

As it is a flat run down the coast, the long hours are more bearable here. However, during a recent visit, two of the 2-8-2s were in shops, a third stopped on shed, and tanks were being used sometimes on 285/6. Consequently, the engine (and crew) arriving late at night at Kiparissia with train 151 had to leave again next morning at 4.48, and this sort of thing is not uncommon in Greece. Total distance covered by the Patras duties is 620 kms. over five days - only 124 kms., or 77½ miles, per day.

The 'passenger' trains are the hardest task, the basic five bogies often being supplemented by four-wheelers full of soldiers, and several wagons of express freight. Despite their greater age the German locomotives appear to be the most popular and capable of the fleet; but with the prospect of a dozen big diesel locomotives arriving later this year, their days are obviously numbered.

NOTES AND NEWS

FRANCE

On 22nd December last, the shed at Nevers contained a total of 106 locomotives, of which approximately half were dumped. This total was made up as follows:-

241P - 3	140J - 13	231G - 18	040TB - 1
141E - 1	140L - 3	231H - 14	040TC - 6
141R - 41	231D - 1 *	242TC - 4	030TB - 1

* Very derelict

The 241P's appear to work the principal expresses on the northern part of the Cevennes line, i.e. Moret-Clermont Ferrand. South of the latter, a new Bo-Bo diesel 67.004 was noted on passenger work on the section Langeac-Nimes. Langeac shed housed a mixture of 141E/F's, plus a couple of 0-4-0TC's. At Alès there are a number of dumped 2-8-2s which were perceived through the blizzard that was raging at the time.

ITALY

The seventeen 235 class 0-C-0 diesel shunters that have been shunting at Milan Central station and freight yards nearby since 1958-59, were taken off these duties in November 1963 and replaced by steam 835 class 0-6-0 tanks, many taken out of store.

The F.S. took over the 15¾ mile Sondrio-Tirano Railway during 1963 and from the autumn its 0-D-0 three-phase electric locomotives were out of traffic and trains were being worked by F.S. diesel railcars and 880 class steam 2-6-0 tanks, pending conversion from three-phase a.c. to 3000 volts d.c.

The coast railway along the Italian Riviera from Genoa to Savona is to be moved inland. From Genoa-Voltri to Varazze, 10 miles, a new railway will be constructed. At Varazze a six mile section from Savona already under construction will be met. Conversion from three-phase to 3000 volts d.c. planned for last year will be postponed until the new line is finished. Authority is now being sought for moving the Savona-Ventimiglia railway inland in the same way.

The order for 85 D341 class Bo-Bo diesel-electric locomotives for the F.S. was completed during 1963, as was the order for 22 of the 141 class Bo-Bo diesel-electric shunters. Also delivered were ten 0-B-0 225 class diesel-hydraulics and twenty ALn668 class railcars.

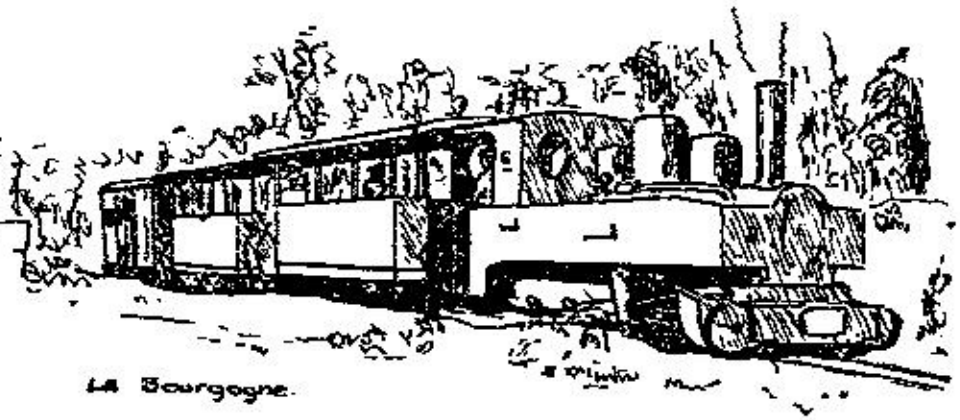
SPAIN

On the Barcelona-Lerida-Zaragoza line, steam replaces electric traction at San Vincente, some 58 kms. from Barcelona. On 23rd December last, the night express from Barcelona was noted an hour late at Manresa double-headed by 241-2056 and 241F2233. At Zaragoza, MZA 4-cylinder compounds 230-4046/51 were noted out of use at Sepulchro, whilst a galaxy of motive power abounded at the Norte shed, including some of the American First World War 2-8-2s.

Although electrified throughout, the Port Bou-Barcelona line had much steam freight working. 2-8-2s are mainly used, with the occasional 2-8-0 or 4-8-0. Gerona shed contained a number of disused 0-8-0s by Sharp Stewart (1889 batch) and the shed pilot was 020-0234 (Couillet 1885).

Acknowledgements for information are due to Messrs. Kalla-Bishop and Rickwood.

MINOR RAILWAYS SECTION



EDITOR'S NOTE: Since very little news has come in from private sources, the news content of this issue has been drastically cut, and will be restricted to information which may affect this summer's tours. Heading picture is of a train on the C.F.Touristique de Meyzieu, near Lyon.

FRANCE

Closures - CENRV, route from Valenciennes to St. Amand. Most of the remaining system is likely to follow soon. RD du Pas de Calais: passenger service withdrawn from the Cambrai-Boisleux line; Achiet-Bapaume-Marcoing is unlikely to survive much longer. RTA Coucy le Chateau-Blérancourt has been 'declassé', and hence is not a common carrier any longer; the Coucy end may be retained by the Sucrerie Ternynck. Probable Closures - CFTA de l'Herault lines around Montpellier. These are threatened by a projected autoroute which would use some of the trackbed. Dieselisation - PO Corrèze: The two BB diesels are in service, and only one Mallet (currently 101) is in use for shunting at Tulle. The rest may be scrapped this year, along with all 4-wheel coaches. CFD du Vivarais: The 400 h.p. diesel from Montmirail is now in service and steam is only used in an emergency. 406-8 are in open store at Le Cheylard, 401/3/4/13/4 are believed to be more or less serviceable.

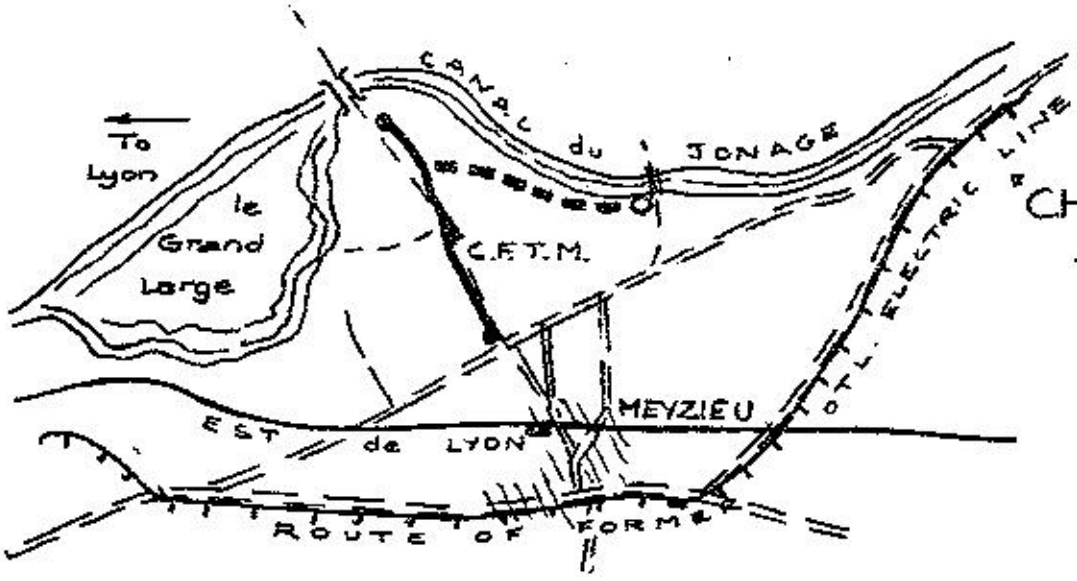
GERMANY

Emden-Pewsum-Greetsiel and the Sudharz-Eisenbahn are closed to all traffic. Two kms. of the Walhallabahn are still in use at Regensburg, with one or two V29 class diesels; Nagold-Altensteig is still open to freight (one V29 and an 0-10-0T). Diesels are expected on the Odenwaldkleinbahn in June. The metre-gauge branch of the Albtalbahn to Ittersbach is now very poorly served and may even have closed by the time these notes are in print.

ITALY

107 miles of electric railways closed in 1963. These comprised:- Ora-Predazzo (metre); Bolzano-San Antonio; Bolzano-Collalbo (metre); Pescara-Penne (95 cm.); from Cortina to Dobbiaco on the 95 cm. Dolomite Railway. The Societa per le Strade Ferrate del Mediterraneo gave up the Calabria-Lucania railways (475 route miles of 95 cm. gauge) as from 1st January 1964. They will probably be operated directly by the Ministry of Transport. The Genoa-Casella Railway has acquired two motor coaches and two trailers from the Ora-Predazzo. The locomotive and

(Continued on Page 13)



The "Chemin de Fer Touristique de Meyzieu."

Anyone able to stop-off in the region of Lyon during his summer tour, might well consider having a look at the enthusiast-run C.F.T.M. This is not by any means the only attraction in the district, since the O.T.L., the municipal transport company, run various funiculars in the city and the standard gauge Est de Lyon runs freight services with diesel power (both are friendly to visitors); but it is the most interesting.

The C.F.T.M. is interesting in many ways. It was the inspiration of one man, Jean Arrivetz of the O.T.L.; it has managed to acquire official powers to run as a C.F.d'Interêt Local - no easy job these days, one would think - and it has acquired a collection of steam engines from all over the place. Work was started in 1959-60 and the line opened for traffic in 1962.

The plan is simple and might well be copied by small enthusiast groups over here, in that it fills a genuine need. The terminus is in Meyzieu, a small town some 15 km. east of Lyon, at a place called 'Le Carreau' which is also a bus-stop on a V.F.D. bus route (replacing the old Lyon-La Balme line of the O.T.L.). Here is a simple loop and siding laid in Broca rail (ex-O.T.L.) by the side of the road, and the line then runs northward, on the left side of a minor road, for about half a mile when it swings across the road by a level crossing and enters the depot halt. This, incidentally, is used by others than enthusiasts, since a walk of about 300 yards up a side track takes one to a good cafe and a boating park on the banks of 'Le Grand Large'. This, an artificial reservoir, is the main 'raison d'être' of the C.F.T.M., since it is a favourite resort of the Lyonnais, and the line itself reaches its shores after about another half-mile, mainly on its own right of way. This stretch includes a short embankment and a cutting on a descending grade before the present terminus, about 50 yards from the lake and the Canal de Jonage. Extensions are planned towards the canal, and eastwards along its banks to a point opposite a projected youth camp, but effort so far has gone into improving the original light, steel-sleepered track and building up both stock and depot. The latter is now quite substantial and a passing loop is being put in to allow two trains to pass there.

Stock:

The line started life with two Decauville locomotives from a local quarry, one being an 0-4-0T in working order and the other an 0-6-0T needing extensive repairs but with a sound boiler; and a petrol-driven draisine presented by a scrap merchant and converted up from 50 cm. gauge, for permanent way work and light traffic. Since then the two main groups of enthusiasts supporting the line (Swiss and French) have acquired respectively a 4-wheel diesel and an ex-D.F.B. 0-8-0T by Krauss. In addition an old Decauville-Crochat petrol-electric railcar with a long history has come from the Petit Tram de Cap Ferret; and the line has just (12/63) acquired a further Decauville 0-6-0T from a ballast quarry at Moulins-Neuf in the Nièvre.

Coaching stock comprises three semi-open coaches, with longitudinal seats, on ex-D.F.B. bogie underframes. These have roller bearings and are excellent vehicles, seating 24 passengers each. There is also, rather surprisingly, an ex-W.D. ambulance van, now converted to a passenger carrying brake-van, and odd small wagons for maintenance work.

Further particulars of the locomotives are as follows:-

No. 1	La Cocquette	Decauville	0-4-0T	Ex Tarare Quarry.
No. 2	Le Beaujolais	Decauville	0-6-0T	Ex Tarare Quarry; under repair.
No. 3	Le Majolaine		4-wh.P	Petrol trolley.
No. 4	La Savoyarde	Decauville	Bogie railcar	Undergoing a complete rebuild.
No. 5	Le Leman	?	0-4-0D	Ex Geneve.
No. 6	Le Bourgogne	Krauss-Maffei	0-8-0T	Ex Tuileries de Chagny.
No. 7	-	Decauville	0-6-0T	Ex Moulins Neuf.

Tailpiece:

....And if you are going to Lyon by road, don't forget "Le Petit Train de la Guette", a most unusual cafe on RN 6 near Saulieu, at the old station of the Tramways Départementales de la Côte d'Or. It consists of old metre gauge stock headed by an ex-D.F.B. 0-8-0T!

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NEWS ITEMS (Continued from Page 11)

four motor coaches from the Pisa-Leghorn line, closed in 1960, have been sold to the Cumana Railway at Naples, which has incorporated the motor coaches into two three-car sets. New lines: The new 40-mile, 3000 volts d.c. Bari-Barletta Railway has now got nine motor coaches and two locomotives by Tecnomasio Italiano Brown Boveri, together with six control trailers. All stock is painted light grey with off-white panels at window level and an off-white band just above the wheels. All is dated 1963. Contracts were also let during 1963 for the building of a second Rome Metropolitan Railway, from Piazza Risogemento in the west to Osteria del Curato in the south-east, via Rome Termini. The latter section is being started first.

Acknowledgements for information are due to Messrs. G. Hoare, P.M. Kalla-Bishop and Wolfgang Zeunert, and to the F.A.C.S.

SOMEWHERE TO EXPLORE

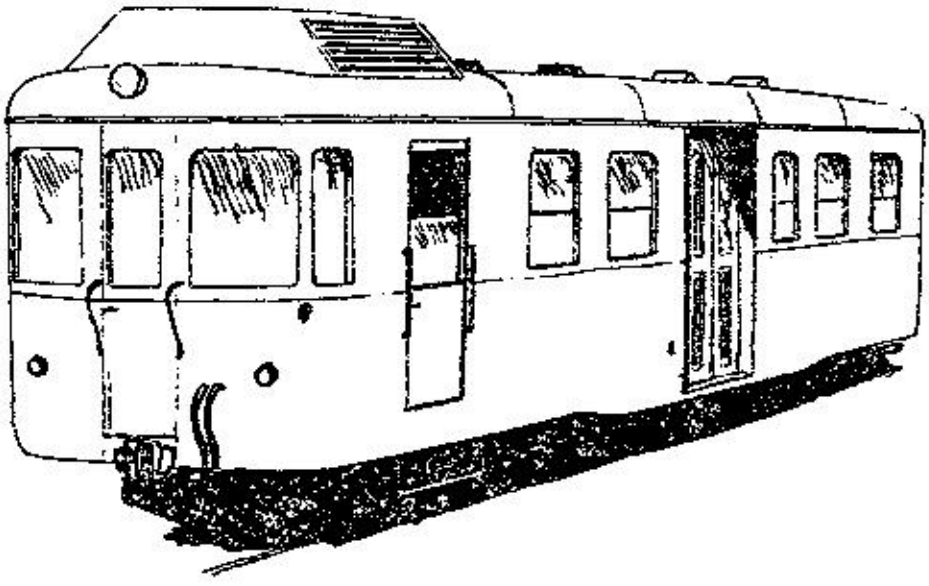
by P.M. Kalla-Bishop

Coal mining and mineral areas can usually be relied upon to shelter some of Europe's dwindling stock of steam locomotives. The Sulcis region in south-west Sardinia is such an area, with the added advantage that the railways that serve the mines are 3ft. 1½in. gauge, save for an F.S. branch to the collieries of Carbonia that was only opened in 1956. From the capital of Sardinia, Cagliari, it is a three-quarter hour run to Siliqua, whence a Sardinian Southern Railways narrow-gauge line runs to San Giovanni-Suergiu and Calasetta. Or the F.S. train continues on for another half-hour to Iglesias, the locomotive headquarters of the Sardinian Southern Railways, and from which another line runs to San Giovanni-Suergiu. This latter railway serves the mines; lead, copper, zinc and so on at Monteponi, and coal at Bacu Abis and Carbonia. On the way to Calasetta, there is narrow-gauge double track for a few miles from San Giovanni-Suergiu to the coal staithes at San Antioco.

The Sardinian Southern Railways steam locomotive stock totalled 32 at the last count; 0-6-0 and 2-6-0 tanks are now in traffic for the coal and mineral trains, which are comparatively frequent, while at Iglesias there are eight 2-6-6-0 and one 0-4-4-0 Mallet tanks which have lain out of use for twenty years or more. Passenger services are covered by diesel railcars. Monteponi is the headquarters of the powerful S.A. Monteponi, a company which owns practically everything of any importance in the area, including the 15-mile 3ft. 1½in. gauge railway from Monteponi to the sea at Portovesme. This parallels the Sardinian Southern down a rocky valley as far as Bacu Abis, before swinging away to the west. The railway was opened in 1871, the first narrow-gauge line wholly in Italy and, like some other early narrow-gauge lines, its stock still has side buffers. Mule-worked for the first ten years, it acquired two Henschel tanks in 1881 to start a public passenger service, and a Krauss tank soon afterwards. Two Borsig 0-4-4-0 Mallet tanks came in 1905 and 1906, and one of these at least was in use up to 1959, the A class. Today, larger 0-4-4-0 Mallet tanks work the line - the B class which arrived, ex-Sangritana Railway on the mainland, about 15 years ago. No.B5 "Campo Pisano", Borsig 1912 has been noted. Passenger services ceased on the Monteponi Railway in 1918, except for running powers exercised by Sardinian Southern railcars for a few years during and after the last war.

Little is known about the industrial motive power. Forty years ago, one or two Hunslet 4-6-0 tanks, 600mm. gauge, ex-W.D., were working at Bacu Abis and presumably there were other steam locomotives. Badoni built eight 40 h.p. diesel four-coupled locomotives in 1954 for the same area. Otherwise, information exists only for the Montevecchio mine, outside the Sulcis area, which S.A. Monteponi absorbed in 1963. From San Gavino station on the F.S. main line from Cagliari to Sassari, a narrow-gauge railway runs westwards to this mine; but in 1957 a metalled road reached the mine for the first time, which bodes ill for this railway. Makers' lists show a Krauss 0-6-0 tank supplied to Montevecchio in 1903 and an 0-4-4-0 Mallet tank from Borsig in 1913. Between these two dates, Schichau of Elbing supplied at least one other 0-4-4-0 Mallet tank. Finally for those with a taste for derelict railways (or is this one derelict?), there is

(Continued on Page 17)



Billard
150 h.p.
type
"L'Espagne".

KNOW YOUR ENEMY No. 2 - Billard 150 H.P. Railcars, "Type l'Espagne"

I make no apology for including another Billard design as the second of this series, for enthusiasts travelling to Spain are almost sure to encounter this type of car over and over again. It was designed specifically for the Estado concern and, since 1958, has been gradually coming into service on Estado lines - and also on lines which cannot afford modern equipment of their own but where cars have been provided on loan or hire. The cars had a number of teething troubles when they first entered service, some no doubt due to inexperience of railway personnel; but now appear to have settled down. They have certainly ensured the retention of passenger traffic on lines such as the Reus-Salou and Buitron railways.

The Type l'Espagne is a good example of modern railcar design. It is double-ended, with some storage space in the driver/motor compartment, and is of welded-steel and aluminium construction. Bus-type seating for 30 passengers is provided, with occasional seating for three more; and a theoretical 15 standing passengers can be carried in the central entrance vestibule. A small toilet with wash basin is also provided.

Braking is by air, with dead-man's control, and there is also a hand brake. The motor is a standard Willème 150 h.p. 6-cylinder diesel of type F6M517, but a 200 h.p. motor can be fitted if required. Maximum speed is 70 km.p.h., and the railcar can pull one or more matching trailers, end doors and flap plates giving access for the conductor-guard. It will be noted that

little luggage accomodation is provided, since most Spanish lines have a daily 'correo' which can handle the "Smalls" traffic.

Dimensions:	Railcar	Trailer
Length over body	12.710 m.	12.450 m.
Width over body	2.390 m.	2.390 m.
Height over body	3.150 m. *	3.150 m.
Weight in working order	14 tonnes	10 tonnes
Seating - fixed	30	46
Seating - occasional	3	3
Standing	15	20

* Excluding radiator

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CENTRES FOR LIGHT RAILWAY ENTHUSIASTS, 1964

I. Jenbach-in-Tyrol, Austria

For the railway enthusiast making his first acquaintance with Austrian light railways, Jenbach is an ideal centre, particularly if other aspects of holidays besides railways have to be taken into account. Situated some half-an-hour's travel east of Innsbruck, on the Ö.B.B. main line, Jenbach is a pleasant open town well served by public transport for access to the surrounding districts; and is also the terminus of two light railways, both privately owned. These are:-

Achenseebahn - A metre-gauge rack and adhesion line some 6 km. long, steam worked by three 0-4-0T of normal Riggenbach type, built by the Vienna Locomotive Works in 1886-88. Coaches include both open and closed varieties, and the line terminates at the very lovely Achensee, connecting with a lake steamer service. Locomotive and carriage sheds are at Jenbach - the arrangements for entry and exit of stock are a curiosity in themselves - and the management is friendly. However, write beforehand if possible.

Zillertalbahn - A 76 cm. gauge line running south for 32 km. up the Ziller valley to Mayrhofen, a noted winter sports resort. During the tourist season, steam is used for most workings although the company possesses diesel locomotives and a railcar. Locomotives are four 0-6-2T and a 0-10-0TT. The management is friendly, but again a letter would be helpful. Offices and works are at Jenbach.

In addition to these, Jenbach contains a locomotive works (now all diesel) and day trips are possible to a number of railways in the vicinity. The best place is Innsbruck itself, where, apart from the town trams, the city tramways run two metre-gauge electric light railways, one from the town centre out to Solbad Hall (en route to Jenbach, so that you could use it for part of the journey); the other runs from the tramway depot at Berg Isel, through wooded

country to Igls, scene of the recent Winter Olympics. Also from Berg Isel runs the nominally independent Stubaitalbahn, a very "Manx Electric" sort of line with its original stock, which even hardened steam enthusiasts should find interesting. It offers a superbly scenic run to Fulpmes, in the neighbourhood of which, as the guidebooks say, are many fine walks. Innsbruck also has an interesting funicular and cable-car, the Hungerburgbahn, and, for less railway-minded people, is a beautiful and historic city, well worth visiting on its own account.

Provided services have not worsened, several longer expeditions are possible. The first is to go east along the main line to the pleasant lakeside town of Zell am See, from which an Ö.B.B. 76 cm. gauge branch, the Pinzgauer Lokalbahn, runs west to Krimml, possessor of some very fine waterfalls. The line is now almost entirely dieselised, but there should be some steam around the sheds at Zell (about ¼ mile from Ö.B.B. station; can be reached by road, and a public footpath crosses the yard). From Krimml, one can take a post-bus (summer only) over the scenic Gerlos Pass to Zell am Ziller on the Zillertalbahn, and return to Jenbach by an evening train.

Another expedition is to Salzburg, for the electric standard gauge line to Lamprechtshausen. Probably the best way to do this is by one of the coach tours which pass through Berchtesgaden, a place which, besides its more unsavoury associations, owns a disconnected stretch of electric line once joined to Salzburg itself. Yet another expedition is to take a train via Wörgl and Kufstein into Germany and go down to Prien, on the Munich-Salzburg line. From here one can take the solitary, steam-hauled train of the metre-gauge Chiemseebahn to Stock, and have comfortable time for a trip on one of the two paddle steamers, and a look at the grandiose castle of Herrenchiemsee, before returning to Jenbach. Lastly, it should be possible to travel beyond Innsbruck to visit the curious, standard gauge, electric Montafonerbahn, from Bludenz to Schruns.

This completes the rail interest, but the non-technically minded might like to know that, a few stations east of Jenbach is Rattenberg, with a ruined castle to explore. It is also famous for its engraving on glass, and craftsmen will do some for you while you wait - there is no record of what their reply would be if asked to engrave a locomotive!

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SOMEWHERE TO EXPLORE (Continued from Page 14)

or was a mineral line from Porto Botte, south of San Giovanni-Suergiu, which ran fifteen miles or so towards the mountains. It crosses the Sardinian Southern on the level near Santadi station and track was seen in situ there some years ago.

Sardinian police are numerous, bored, interfering and pedantic. Poisonous snakes have been reported in the long grass by laid-aside locomotives. The writer would be delighted to have any additions to the details set out above.

STOP PRESS NEWS - The D.B. 750 mm. gauge Leonbronn-Lauffen line closed on 3rd. May, with suitable festivities. It is reported that the line will be converted to standard gauge.

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