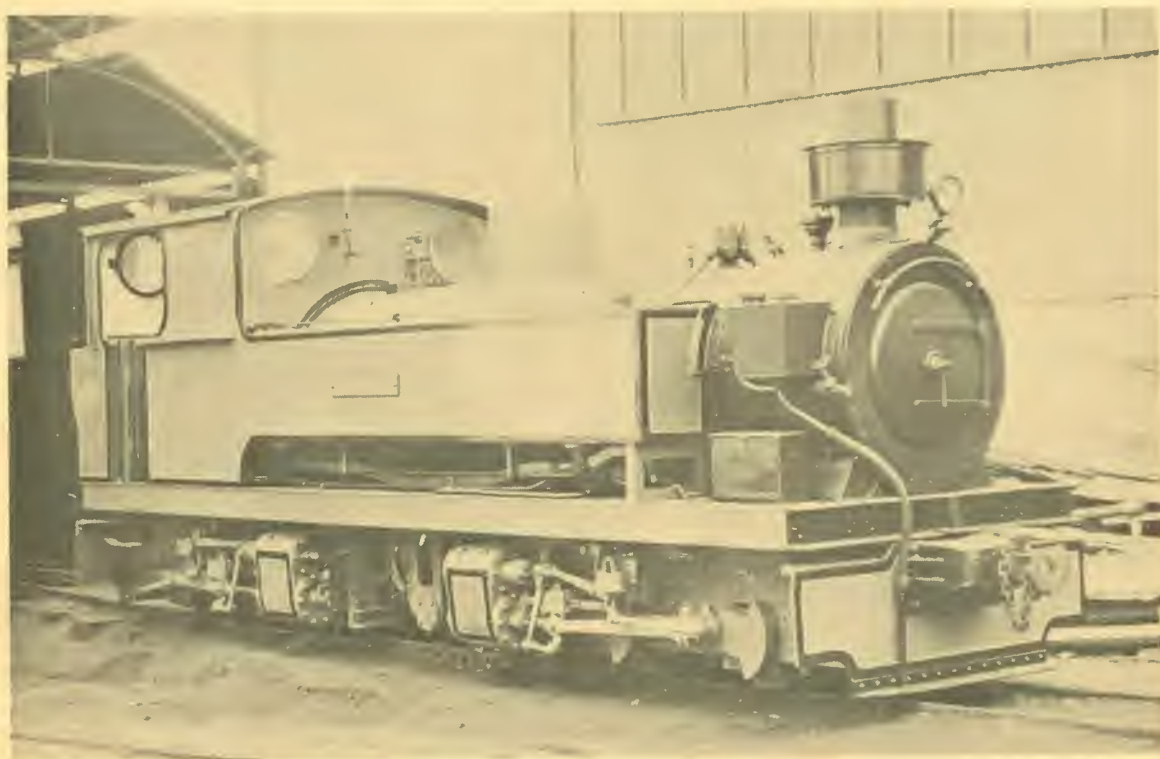


# *The* **NARROW GAUGE**



**THE NARROW GAUGE RAILWAY SOCIETY**

## THE NARROW GAUGE RAILWAY SOCIETY

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## Editorial

It gives me great pleasure to present No. 46, the tenth magazine since I took over the hot seat in February 1965. I have enjoyed the preparation of those issues, and they look well bound together in one of the smart new "Easibinders" (Rich. Morris, 193 Main Road, Longfield, Dartford, will supply 12/6 + 1/- p.p.)

The ONLY unpleasant part of the job is explaining to the odd contributor that his item will not be printed for a month or two, or that I have had to cut it down to "fit in", and achieve a balanced magazine. We are still looking for the shorter 2 or 3 page articles with a couple of good photos. I do hope people with an item in the "pending file" will understand the position (few of these articles "date" - some even improve with old age like good wine!!)

The photographs opposite show "Polar Bear" on arrival at Brockham Museum from Groudie Glen. It is hoped to steam the engine later in the year if funds are forthcoming for boiler repairs, can you help? Further details from John Townsend, 4 School Flats, Kingstone, Hereford.

Finally, perhaps belated but no less sincere, BEST WISHES for 1968.

-Henry Holdsworth.

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## Cover Photo

"MONARCH" before departure from Bowaters Sittingbourne to  
Welshpool - 1966.

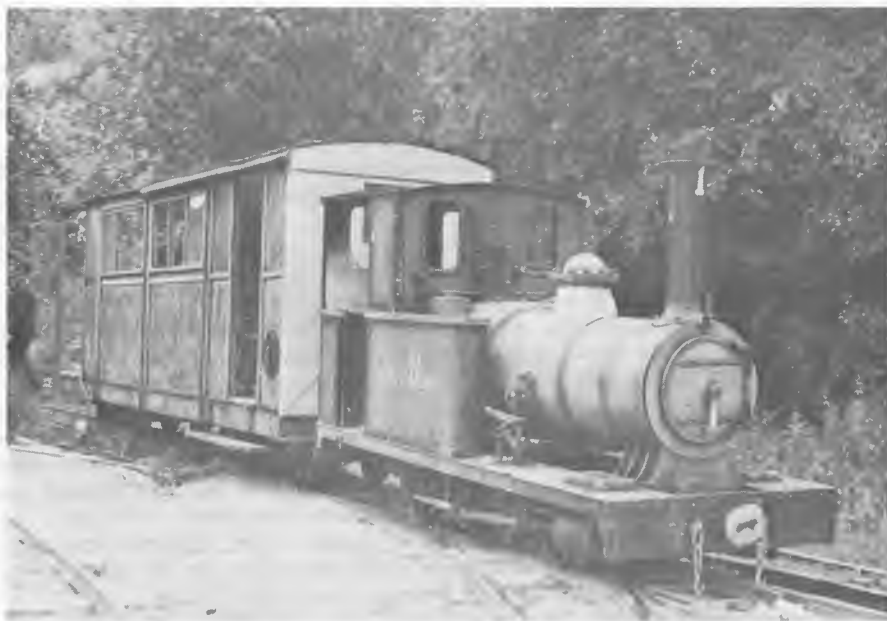
Photo Andrew Garner.

"BEDDGELEERT" on page 15 is produced by courtesy of The Hunslet  
Engine Company, by kindness of Geoff Horsman.

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# "MICROBE"

HUNSLET 1028

By Geoff Horsman

Photos by courtesy of The Hunslet Engine Co.

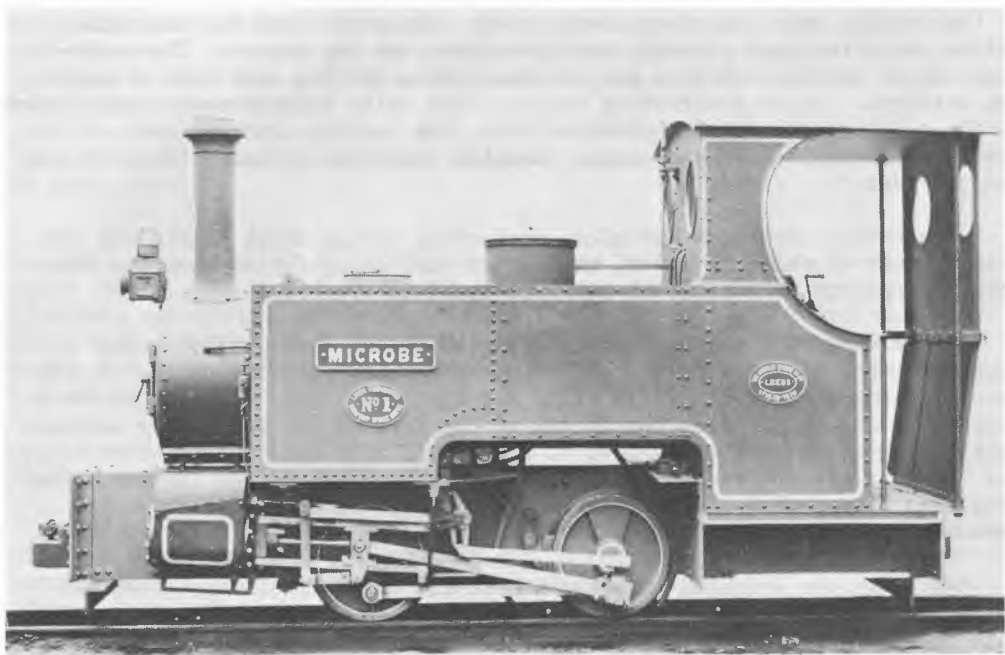
Although "MICROBE" No. 1028 of 1910, was a rather larger locomotive, in basic design it followed closely a 5 in. diameter x 8 in. stroke outside cylinder 0-4-0 type wing tank engine for which an order for four 2 ft. 6 in. gauge locomotives was placed on the Works in June 1909. Maker's numbers 1007 to 1010 were allotted to these engines, all of which were sold to T.A. Martin & Co. of Calcutta, India, the first two being shipped in October 1909. The other two, which were altered to 2 ft. 0 in. gauge, followed in February 1910.

A design drawing of a similar but larger locomotive with 7 in. x 12 in., outside cylinders was made in September 1909. This also showed a 2 ft. 6 in. gauge engine with a canopy over the footplate as on the 5 in. x 8 in. locomotives.

It would appear as a result of an enquiry from Leeds Corporation who were requiring a locomotive for Knostrop Sewage Works, a further design drawing was produced in November 1909. This was of a 7 in. x 12 in., 60 cm gauge locomotive and generally followed the earlier drawing except that front and rear weather screens with spectacle glasses were shown. The brake screw handle was to be at the left hand side and at the rear of the footplate as previously.

A specification of requirements issued by Mr. G.A. Hart the Sewerage Engineer, stated that the engine would be required to haul a nett load of 30 tons up an incline of 1 in 40, and 150 tons on straight and level track at a speed of 10 miles per hour. In addition the locomotive would have to pass round 50 ft. radii curves.

No doubt as a result of discussions with Mr. Hart, another design drawing was made showing the engine substantially in the form in which it was eventually built. A small part cab was shown at the leading end of the footplate but the brake screw had been moved to the right hand side where it was carried from a bracket attached to the outer firebox wrapper plate. As on the earlier engines the regulator valve was to be housed in an external casting on top of the round topped firebox.



The drawing showed a departure from previous designs in showing the wing tanks joined to the cab by means of cover plates. It is not clear if this was to be done for the sake of appearance or if it was intended that the plates would provide some staying effect to the tanks, as the capacity of the latter was not to be increased in any way. In the lower part of the rear weather screen a sliding door was to be provided, its purpose being to allow firing tools to be passed through, and not as may be supposed, to give access to the trailing drawgear from the footplate.

It may be of interest to record some of the constructional features of No. 1028 "MICROBE" as built. The frames made in two parts were of  $\frac{5}{8}$  in. thick steel plates, the leading portion from the buffer beam to a transverse stay in front of the firebox were set 1 ft.  $6\frac{5}{8}$  in., apart, and from there to the trailing buffer beam the measurement was 2 ft. 10 in. in order to accommodate a wide firebox. At the lower edge of the frames beneath the smokebox saddle a 3 in. thick cast iron balance weight acted as a frame stay between the cylinders.

The outside cylinders set an inclination of  $4\frac{3}{8}$  in. in 6 ft. 0 in., down to the driving axle had steam chests above, the port faces for the slide valves being inclined outwards and downwards from the frames. The cross-head was of the two bar type and the connecting rod big ends were strapped and cottered. It is interesting to note that while split brasses were fitted in the coupling rod driving crankpin ends, the leading crankpin ends of the rods had conventional bushed eyes. Outside admission Walschaerts valve gear was provided.

The wheels were of a one piece cast steel design which eliminated the initial cost of separate tyres, the latter only being fitted when the treads were too worn to be capable of being returned to profile.

As on many narrow gauge locomotives the boiler had a raised round topped firebox with a wide but short grate, the internal dimensions of the inner firebox being 2 ft. 2 ins. wide x 1 ft. 5 in. long. The method of supporting the boiler from the frames at the firebox end was rather unusual. Only one expansion angle was used as a support, this was riveted to the firebox throat plate and rested on the frame stay in front of the firebox. The drum head type smokebox was supported on a cast iron saddle in which the exhaust pipe branches were cast integrally.

Although the original proposal was to fit an external regulator, the design was altered to an internal regulator inside the outer firebox shell. This was placed above the girder stayed inner firebox crown, access being by a manhole on top of the outer firebox. The manhole cover carried a large steam stand into which the blower cock, injector steam cocks, whistle cock and pressure gauge cock was fitted. Screwed into the top of the stand was a single  $2\frac{1}{2}$  in. Crosby Pop Safety Valve. The valve was enclosed in a 7 in. diameter polished brass tube which conducted escaping steam out through a hole in the cab roof.

An asbestos mattress was used to insulate the boiler though at the time No. 1028 was built, wooden battens were the more usual material. Two clack-boxes were provided, one on each side of the boiler barrel, the injectors were of the HECO.No.4 pattern and were carried on the inner side plates of the tanks.

A coal bunker was located on the left hand side of the cab and a tool box and the reversing lever on the right. Also on this side, carried from a bracket attached to the outer firebox shell was the hand brake screw, the latter being operated by a spoked hand wheel in place of the more conventional handle. Carried inside the cab front plate was a 4 in. Dewrance pressure gauge, while on the outside, attached to a bracket near the cab roof, was a  $1\frac{1}{8}$  in. harmonic whistle. The latter was operated by a cord which passed through a hole in the front plate and over a pulley attached to the underside of the cab roof, the cord terminating in a handle similar to a W.C. chain pull.

Sandgear consisted of a cylindrical sandbox on top of the boiler from which the sanding valve operating rod passed back on the right hand side into the cab. Sand was fed by gravity through pipes to the leading or trailing side of the driving wheels according to the direction in which the sand gear rod was moved.

The chimney had a cast iron top and a separate barrel and base built up from plate.

The wing tanks of No. 1028 were attached to the cab side sheets by cover plates, the end of each tank being shown in the photograph by the line of rivets and bolts immediately above the reversing shaft. Just visible under each cover plate in front of the cab was the base of a traversing screw jack one of which was carried on a gusset stay on each side of the locomotive.

A centre buffer casting to suit the Leeds Corporation wagons was fitted to each buffer beam.

"MICROBE" left the Works on the 11th May 1910, painted black, lined out with a  $\frac{3}{8}$  in., vermillion line, picked out in white. The buffer beams were painted Indian red, lined out in white, and the interior of the cab was a stone colour. The official photograph was taken with the locomotive painted grey, lined out in white.

Soon after the first World War Leeds Corporation purchased two 60 cm gauge ex-War Department "Simplex" petrol locomotives for Knostrop Sewage Works and "MICROBE" was then sold. The new owners, B. Whittaker and Sons Ltd., had offices at 4 Albion Street, Leeds, and quarries at Stourton. The concern also appears to have been known as the Leeds Sand and Gravel Co.Ltd., though spare parts for No. 1028 were delivered to the Rothwell Sand & Gravel Quarry, Pontefract Road, Stourton, Leeds. The exact date of the transfer of "MICROBE" to the new owners is not known, no further orders for spare parts were received from Knostrop after September 1920 and the first order was placed by Whittakers in December 1922. "MICROBE" worked at Stourton until at least late in 1931 when it is believed the quarry closed down, after which there is no trace of the engine and its ultimate disposal is not known. The last spare parts order placed by Whittakers' was for 12 brake blocks on the 16th September 1931.

A steady flow of orders for spare parts for No. 1028 was received by Hunslet over the years. The most frequent item being for new brake blocks, but no fewer than ten bearing springs were supplied to Knostrop, though the later owners only required three. The wheels and axles were sent to Hunslet in May 1912 to have the flanges and treads turned off and new tyres fitted to the wheel centres which were originally of the one piece type complete with flange.

Orders for new connecting rod and coupling rod brasses and bushes also crosshead slideblocks came in fairly regularly. During the years 1924 to 1926 there appear to have been some unfortunate mishaps with right hand cylinder covers, possible due to water becoming trapped between the piston and covers, causing breakage of the latter, and no less than four new covers, both leading and trailing were supplied.

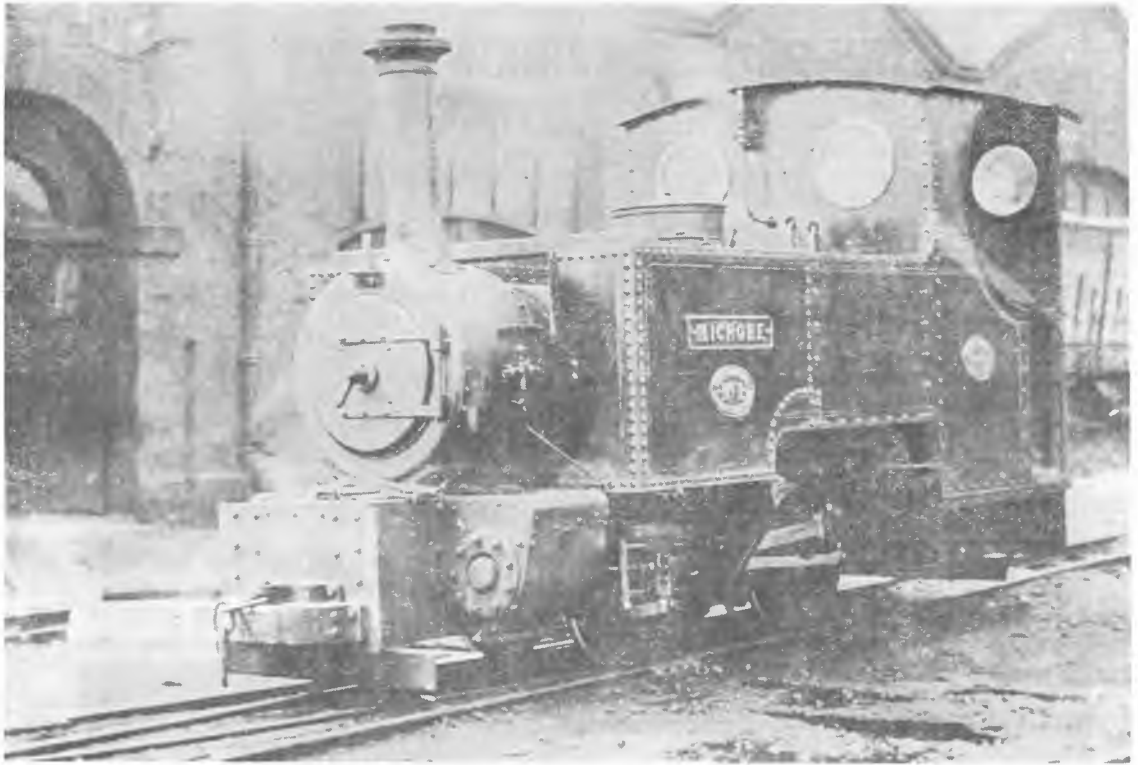
Nearly all the design of No. 1028, which was new, and also many of the drawings were undertaken by George MacArd, a man who had been a Kitson apprentice and a draughtsman with North British Loco Co. before coming to Hunslet from the latter Company in 1908.

"MICROBE" remained the sole example of its class though four later locomotives with 7 in. x 12 in. outside cylinders incorporated several details, including cylinders, motion, springs and brakeblocks and hangers made from No. 1028's drawings. The engines were No. 1039 "DORSIB" of 2 ft. 6½ in. gauge built for Jee's Hartshill Granite and Brick Co. Ltd. which was dispatched four days before "MICROBE"; No. 1042 "FORTUNA", a 2 ft. 6 in. gauge engine which was shipped to United British Oilfields of Trinidad on 25th July 1910, and finally two 2 ft. 0 in. gauge locomotives, Nos. 1055 and 1068 which were sent to T.A. Martin & Co., Calcutta, for the JAGADHRI LIGHT RAILWAY, INDIA, in February 1911.

Leading dimensions of No. 1028 "MICROBE" were as follows:-

GAUGE	60 cm. (1 ft. 11½ in.)
SIZE OF CYLINDERS	7 in. dia. x 12 in. stroke.
DIA. OF COUPLED WHEELS	2 ft. 0 in.
RIGID WHEELBASE	4 ft. 0 in.
HEIGHT FROM RAIL TO TOP OF CHIMNEY	8 ft. 2¼ in.
EXTREME WIDTH	5 ft. 7½ in.
HEATING SURFACE - SMALL TUBES	111 sq.ft.
FIREBOX	15 sq.ft.
	<hr/>
	126 sq.ft.      126 sq.ft.
GRATE AREA	3 sq.ft.
WORKING PRESSURE	160 lbs. per sq.in.





TANK CAPACITY	180 gallons
FUEL SPACE (COAL)	3 cwts.
WEIGHT EMPTY	7 tons 4 cwts.
WEIGHT IN WORKING ORDER	8 tons 14 cwts.
MAXIMUM AXLE LOAD	5 tons 5 cwts.
TRACTION EFFORT AT 75% BOILER PRESSURE	2940 lbs.
ADHESIVE RATIO	6.6 : 1
MINIMUM RADIUS OF CURVE ENGINE WILL TRAVERSE WITH EASE	32 ft.
WEIGHT PER YARD OF LIGHTEST RAIL ADVISABLE	30 lbs.
LOAD ENGINE WILL HAUL ON LEVEL	150 tons
LOAD ENGINE WILL HAUL UP INCLINE OF 1 in 100	75 tons
LOAD ENGINE WILL HAUL UP INCLINE OF 1 in 50	40 tons

# THE BRITISH NARROW GAUGE I/C LOCOMOTIVE

## Part 5 THE NORTH BRITISH 0.8.0 DIESEL HYDRAULIC

By Brian Webb

The design was a large 0-8-0 or D type produced in a power range of 300 - 855 h.p. by the North British Locomotive Company Ltd., of Glasgow, now unfortunately no longer in business.

Designed as a standard unit which could be built for various gauges with different combinations of engines, the locomotives enjoyed some popularity and no other British builder has exported anywhere near as many high power diesel locos of this wheelttype, or to the writer's knowledge has anybody else built a rigid frame design with so high a power output as 855 h.p.

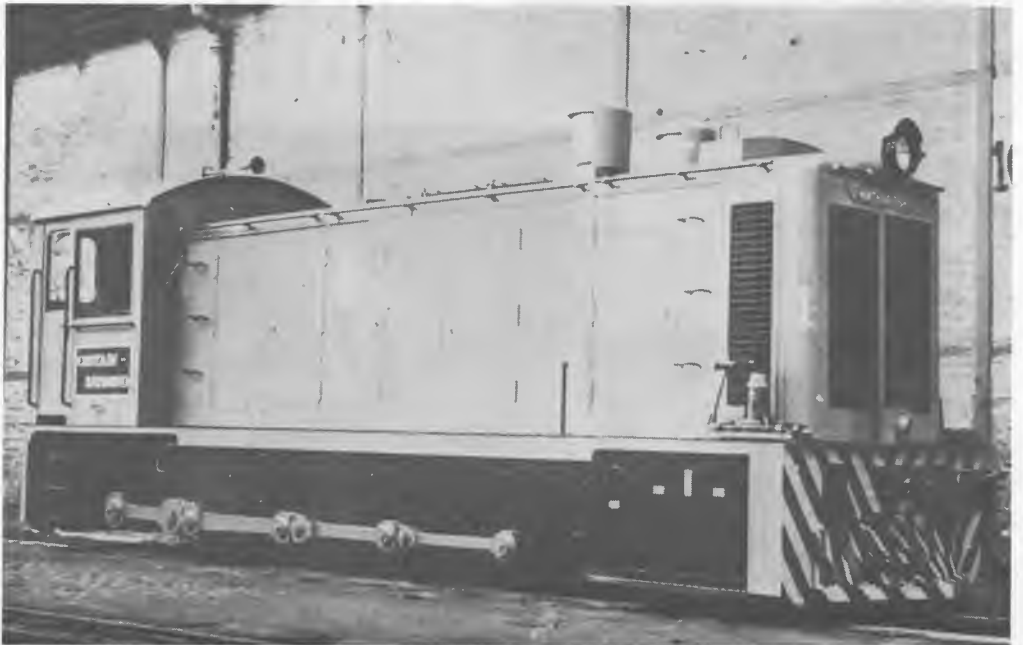
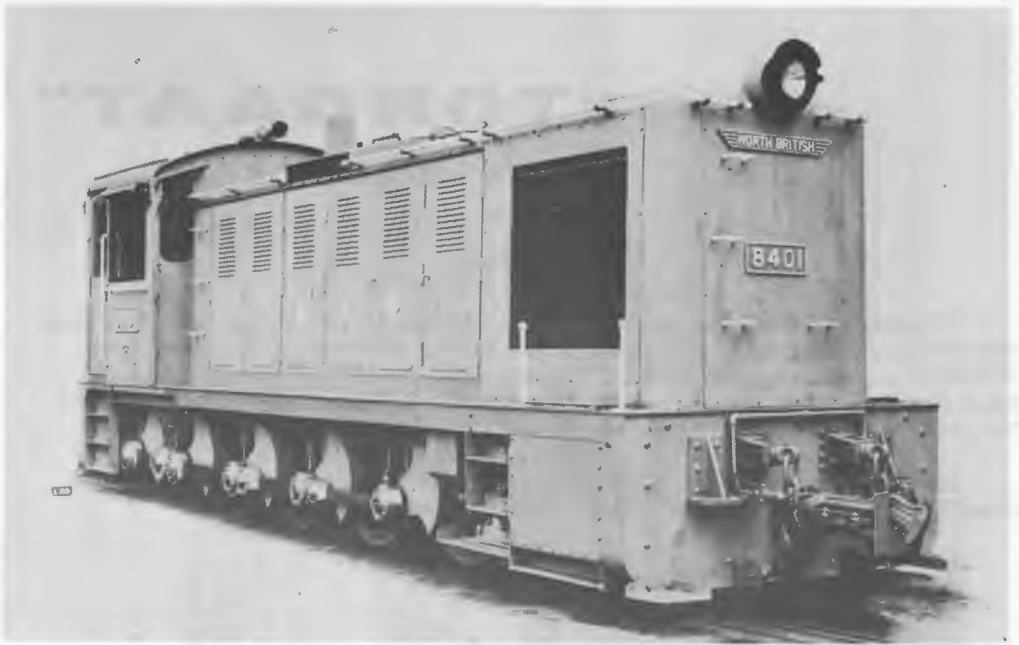
The first unit was delivered in late 1953 for use on the Emu Bay Railway in Tasmania; but the largest operator is East African Railways and Harbours who have 27 examples of 300, 500 and 855 h.p. built up to 1957. A number found favour with industrial users on the African continent and the last two to be built, in 1960, were sent to Nigeria for rock haulage on the Escravos Bar project of Richard Costain and Raymond International. Both locos were later bought by Nigerian Railways.

There was a high degree of standardisation amongst the examples built, all having rear mounted cabs and Voith-North British hydraulic transmissions driving through a final drive gearbox and jackshaft unit of N.B.L. design driving through side rods to the wheels. In all cases outside frames and massive flycranks were employed. The engines were mainly of the Paxman type but the 10 East African locos of 855 h.p. had the N.B.L.-M.A.N. type built at Glasgow.

Typical dimensions were: weight 42 - 52 tons, overall length 27'0" to 30'3½", wheelbase 12'1½" to 13'1½", wheel diameter 3'1½" - 3'9½", tractive efforts 32,000 to 35,000 lbs., top speeds were up to 40 m.p.h.

Table of typical N.B.L. built 0-8-0 Diesel Hydraulics. All 3'6" gauge.

Works No.	Year	H.P.	
27084	1953	500	Emu Bay Railway, Tasmania.
27498-501	1955/6	300	East African Railways. 83 class.
27502-4	"	500	" " " 84 "
27525-34	"	300	" " " 83 "
27553/4	1956	625	N'Changa Copper Mines, N. Rhodesia.
27620-29	1957	855	East African Railways. 85 class.
27642/3	1957	625	Bancroft Copper Mines, N. Rhodesia,
28035/6	1960	530	Costain-Raymond, Nigeria.



# "TONGAAT"

BY SYDNEY MOIR

Whistling shrilly as she panted her way round the sharp curves of the cane-field railway of the Tongaat Sugar Co. is a thing of the past for "TONGAAT". Retired, she stands, "preserved", in Bulwer Park, Durban. Model-makers of the old school will notice that she sports collector bars for outside third rail at the rear ... wonder why?

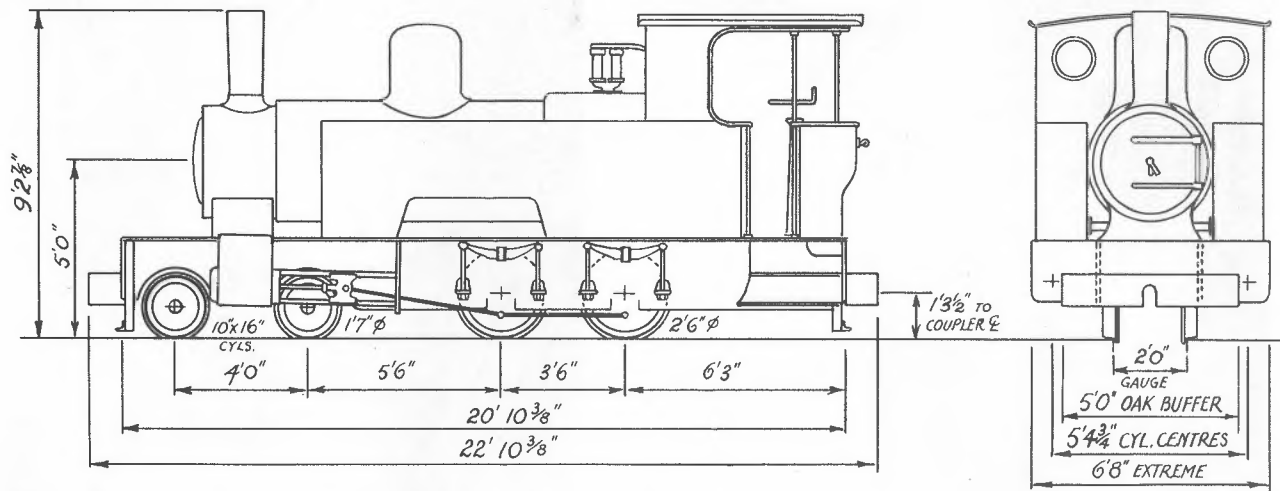
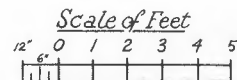
Children from a local school give the old engine a weekly wash and brush up, the bulbous spark arrester is a late addition.



# TONGAAT SUGAR CO.

TONGAAT, NATAL, R.S.A.

REDRAWN FROM  
W.G. BAGNALL  
DRWG. 33314



## HEATING SURFACE:

TUBES 338 · 0 SQ. FT.  
FIREBOX 25 · 3 " "  
TOTAL 363 · 3 " "

GRATE AREA: 6 · 5 " "

## WEIGHT:

EMPTY 14 · 45 TONS  
IN WORKING ORDER 18 · 15 TONS

BUNKER CAPY. 26 CU. FT.

TANK CAPY. 450 GALS

TRACT. EFFORT 6,800 LBS.

ADHESION RATIO 4 · 16 TO 1

WORKING PRESS.: 160 LBS. □"

Bagnall N<sup>o</sup> 2287 of 1926 named SINEMBA

2342	1928	MONA
2374	1929	ISIBUTU
2471	1932	WEWE
2479	1933	TONGAAT II
2522	1935	SIMPODA
2599	1938	W.J. MIRLEES
2627	1940	A. BOULLE
2819	1944	C. WHYTOCK
2820	1944	EGOLOMI



# SHAPWICK PEAT (1959)

By John E. Williams

A journey on the Somerset & Dorset Railway from Highbridge to Evercreech takes one past a small 2 ft. gauge line in the peat fields between Ashcott and Shapwick. I visited this line in 1959 and I still remember the happy afternoon spent there on a hot sunny afternoon.

The depot, where the peat is dried and sorted is on the northern side of the line not far from Ashcott station. There are interchange facilities with the S. & D.J.R. and a network of sidings. The line runs eastwards towards Shapwick for a short distance until reaching a junction. One line continues for about  $\frac{1}{4}$  mile to Meare Heath, while another line crosses the standard gauge track on the level and serves a large Field on Shapwick Heath and a transhipment shed where the peat is loaded into lorries. In the early hours of the morning of 19th August 1949 the morning mixed train from Templecombe to Bridgewater crashed into a 4 W.D. M.R. diesel which had broken down on the crossing! The latter was badly damaged and the 3F 0-6-0, on the train, ended up on its side!

I walked up the line to Meare Heath, where I found a train behind a Lister diesel tractor. I stepped out of the ferns to photograph this and immediately was approached by one of the workmen who asked if I was from the R.S.P.C.A. (I was wearing a black blazer with a Heron badge on it). He explained later that R.S.P.C.A. inspectors had a habit of visiting the line when it was horse worked and always photographed the trains which were overloaded.

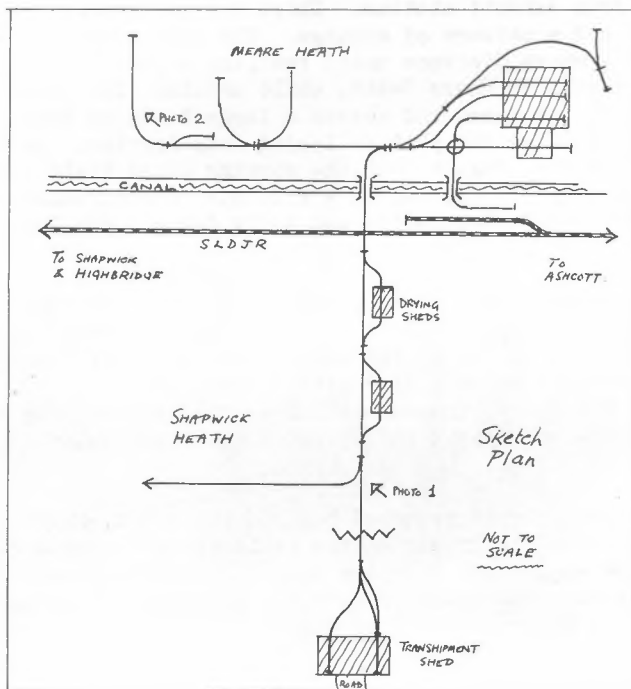
We followed the train as it trundled back to the depot, pitying the horses who had had to work the line. As the train climbed over a ridge the driver would leave the engine and push the train from behind the first wagon. He would then run down and leap onto the engine as the train gathered speed down the other side of the slope.

Information about the diesels which work the line can be found in the B.L.C. handbook. The wagons are simple four wheel tubs. The track is typical contractor's railway track laid straight on top of (or underneath in places) the springy peaty soil.

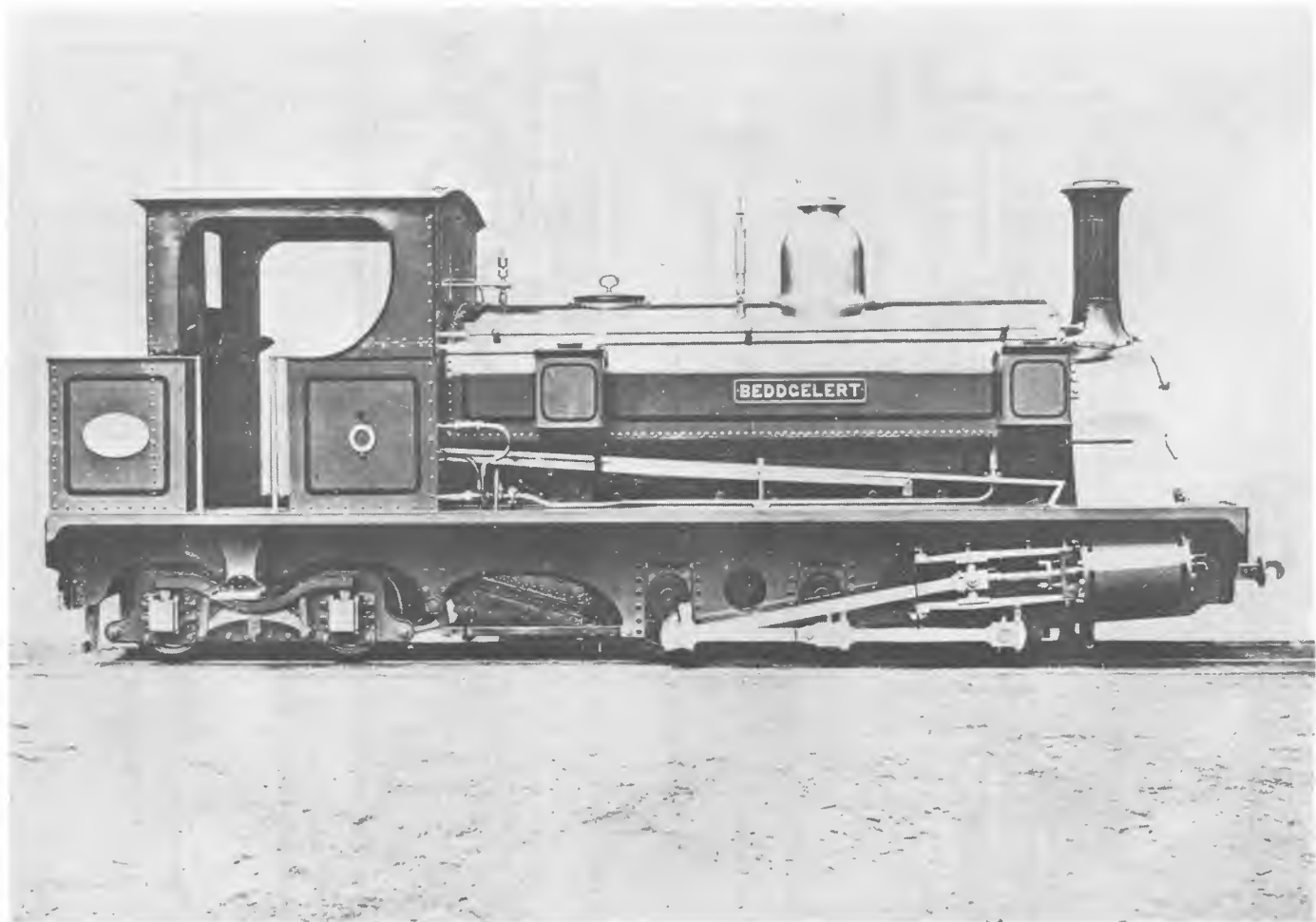
# Eclipse Peat Co., Somerset

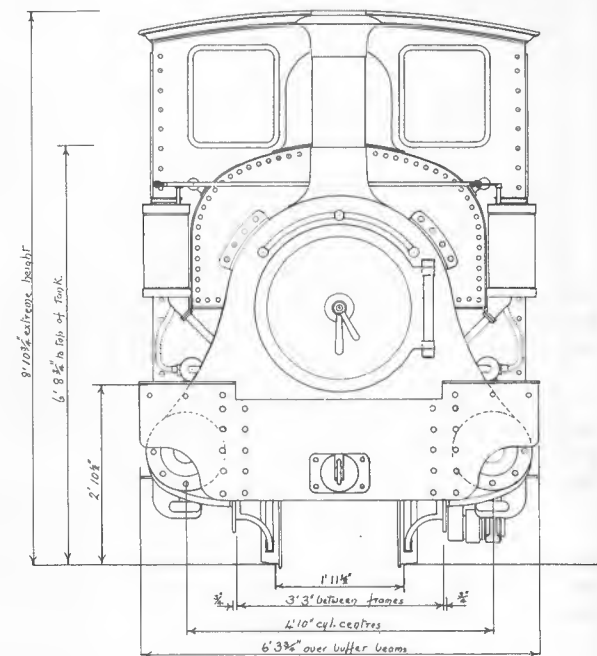
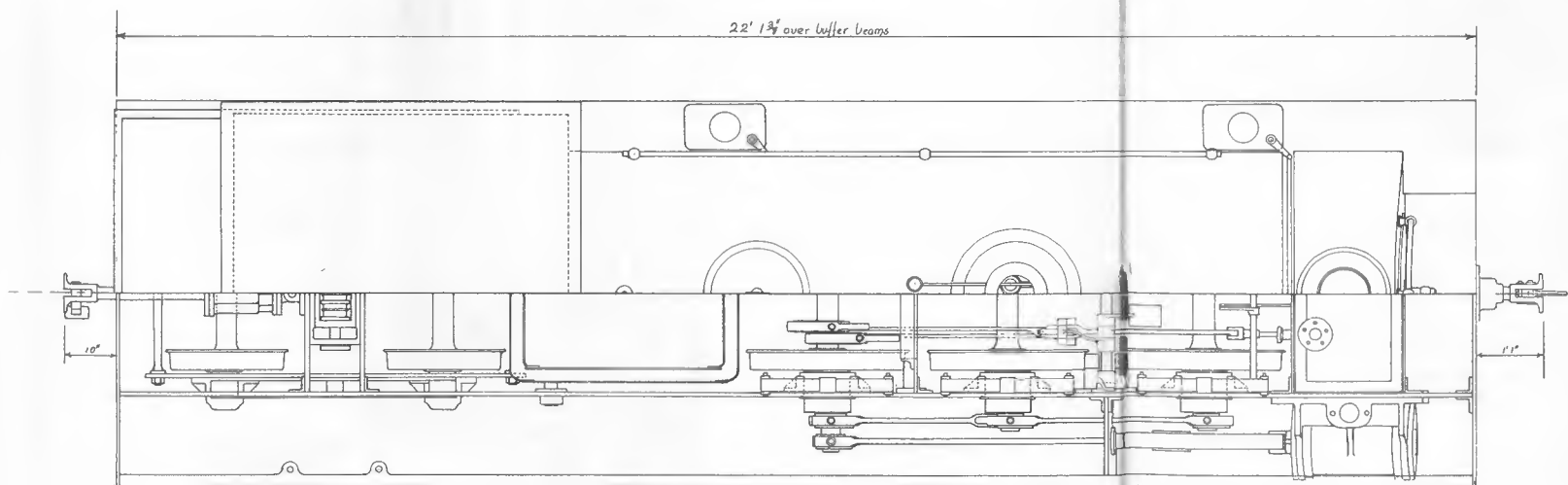
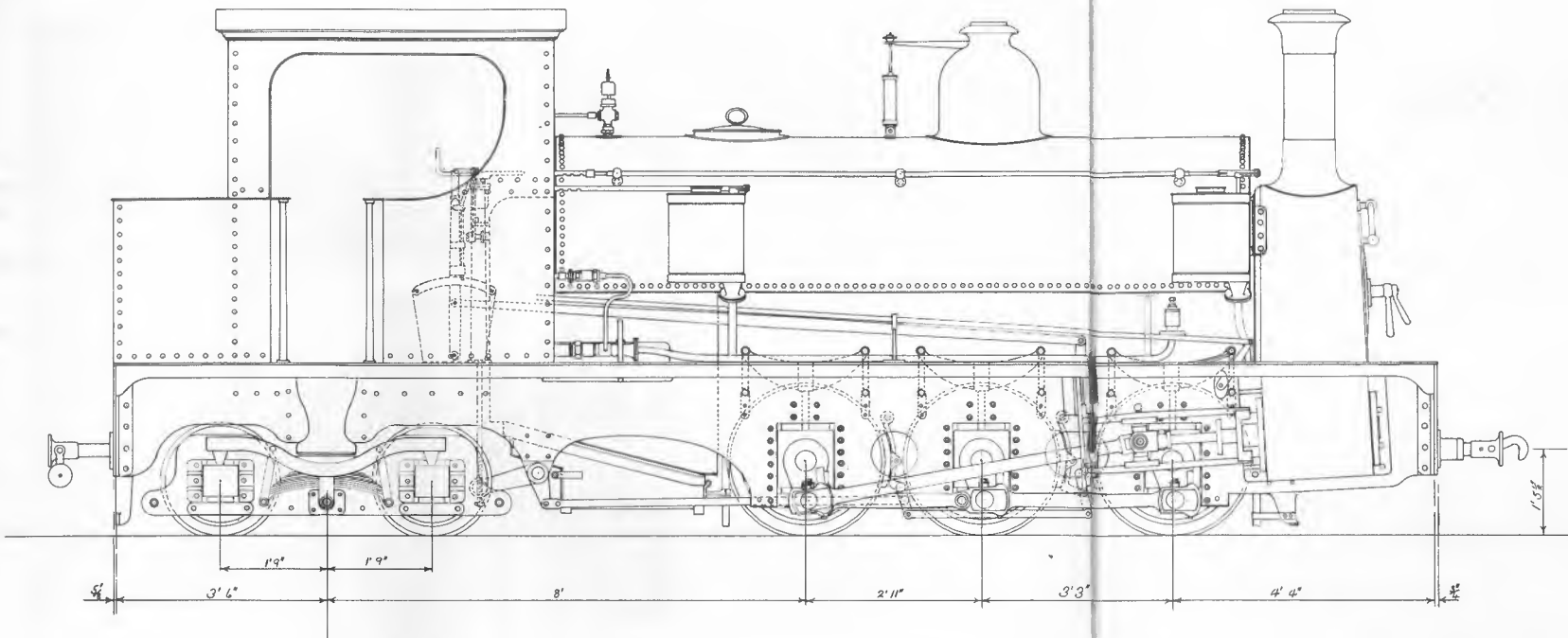
The following locos belonged to this company but whether they ran at Shapwick I have not been able to find out.

- 4 wheel petrol - converted from motor cycle.
- 4 wheel petrol - unknown
- 4 wheel petrol - Muir Hill
- 4 wheel petrol - Simplex
- Four 4 wheel petrol - Lister
- 4 wheel petrol - H. Rays of Bristol
- Two 4 W diesel - Simplex
- 4 W diesel - Ruston Hornsby









HUNSLET 0-6-4ST "BEDGELERT"  
WORKS N° 206 DATE 1878

Gauge 1' 11 1/2"  
Cylinders: bore 10" stroke 16"  
Wheels: engine 2' 6", bogie 1' 10"  
Wheelbase: rigid 6' 2", total 15' 11"  
Tank capacity 450 gallons  
Fuel " 30 cubic feet  
Heating surface-88 tubes 1 1/4" 9/dia = 377 square feet  
firebox 39 " "  
Total 416  
Grate area 7 1/2 square feet  
Boiler pressure 160 lbs. p.s.i.  
Weight working order 17 tons



*W. & A. P. Jones*  
Sept 1878

# O. G. C. OBITUARY (Spain)

By Maurice Billington

Rail closures in this country are all too familiar occurrences. They could never cause other than sorrow to enthusiasts, but one closure which surprised and saddened me more than usual happened over a thousand miles away where such closures are not nearly so common.

The line to which I refer is the "Ferrocarril de Onda al Grao de Castellon" or O.G.C. - a delightful 75 cm gauge line radiating from the pleasant town of Castellon de la Plana on the East Coast of Spain, between Barcelona and Valencia.

Castellon has a population of about 63,000 people and is the capital of Castellon province, although founded in 1251 by pioneers from Burriana it is modern in appearance, having suffered a great deal of damage during the Civil War 1936-39.

The railway was opened first from the Grao (or harbour) (where the narrow gauge track runs between the broad gauge lines of the Harbour Board, more of which anon.) to the town, a distance of four kms in 1888 and in the following year an extension of eleven kms. to Villareal de los Infantes was made. Onda a small town noted for its fancy ceramic tiles fourteen kms. further on was reached in 1890 and this remained the system until in 1907, when a ten and a half kilometre line was opened from Villareal via Burriana to the port of the latter place.

This harbour line closed c 1934 but a new line to Burriana Puerto 2.6 km was opened in 1948. Unfortunately the line from Villareal was closed in 1956 but was re-opened about 1960. The whole system was operated from 1931 under the wing of that very sensible organisation called "Estado" which is a Government concern fromed to operate railways which are regarded as a public necessity but not economically viable, but alas competition from both trolley and motor buses allied to heavy maintenance costs caused the line to close on 31st August 1963 only a few weeks after we had sampled its delights.

Our arrival in Castellon was via the by no means "Rapido" train which had left Barcelona at 11 a.m. and had taken nearly seven hours to cover the 299 kms; our train was a little late and knowing that the train on the OGC (or "Panderola" as it is known locally) would not be long delayed we hired a taxi to carry us the mile or so into the town centre, we just had time to find a hotel, leave our bags and take up a position by the friendly policeman in the Plaza de la Paz with cameras at the ready.



1. CASTELLON HARBOUR BOARD O-4-O WT  
No. 3 BABCOCK & WILCOX 1929.
2. No. 18 O-6-O T at CASTELLON 1.8.1963.
3. No. 5 O-6-2 T in CASTELLON SQUARE.

A few minutes later we heard a hissing and the rumbling of wheels on rail joints, and the train headed by 0-6-2T No. 5 resplendent in green livery and with much polished brasswork, came out of a narrow street, round the corner by the "Banco de Espana" and entered the square where it stopped to enable people to alight or join, then whilst the policeman held up the traffic the loco gave a whistle and it came towards us belching smoke and steam, then passed, hauling its two fairly modern coaches along the street en route for Villareal and Onda.

We were very disappointed at not being able to travel by this train but the timetable showed no return that evening, so we made our way to the Town station which boasted a very good "Cantina" and did not have to wait long for a train to take us along the roadside line to the harbour where we were courteously received by the loco shed foreman, unfortunately by this time it was dusk.

Next day we spent a wonderful morning at the harbour, studying the locos and coaches and trying to converse with the loco-men, we also explored the harbour lines and saw the two locos owned by the "Junta de Obras del Puerto" or Harbour Board.

The earlier Krauss 0-6-OWT of 1890 was regrettably in the shed, but the Babcock & Wilcox 0-4-OWT of 1929 was working and we also discovered what I can only describe as an old coupe coach with "Lancaster Carriage and Wagon Co. 1877" on its wheel bosses, standing on the opposite side of the road from the loco shed.

It was soon time for us to catch the 12.45 p.m. train for Onda and we settled onto the wooden seat of one of the modern coaches which I believe had been converted from a petrol railcar, progress was rather slow but it was a fascinating experience to look out of the open windows at the street scenes of a large town.

We passed through the square again and continued through the streets, first on one side of the road, then in the middle and every so often the train would screech and lurch its way around sharp curves, through Almazora and Villarreál until eventually we were clear of the towns and on the lines own right of way alongside the road, passed the only other station, Bechi, then approaching Onda, we saw one or two of the Tileworks decorated with some of the products and so into the terminal.

There was little time to spare at Onda, just sufficient to enable us to visit the Cantina and procure much needed refreshment whilst No. 5 was coaled and watered and in little more than twenty minutes we were returning at a leisurely pace to Castellon, noting at Villarreál the train for Burriana hauled by one of the lines original locos (No. 1).

The original locos of the OGC were of 0-6-OWT design by Krauss of Munich, loosely resembling the Talyllyn Railway "Dolgoch" except for the wheel notation, 3 were built in 1888-9 and happily all except No. 2 were in service at the time of my visit.



4. No. 5 0-6-2 T CASTELLON SQUARE.
5. No. 7 0-6-2 T CASTELLON TOWN STATION
6. No. 5 at VILLARREAL.

Nos. 4 to 8 were neat two cylinder compound 0-6-2Ts, also built by Krauss, No. 4 in 1889, the rest in 1890 and of the trains I saw nearly all were hauled by these capable locos.

In 1905 a rather hefty looking 0-6-OWT by Hohenzollern was delivered and this we saw inside the depot at the harbour.

As mentioned previously experiments were made with petrol railcar and two were delivered by Motor Rail Ltd. of Bedford in 1927 (for the full story see "The Railway World for March 1962), these were converted to trailer coaches c 1955 and as such are, or rather were still in use.

With the closing of the FC de Flassa a Palamos, Gerona y Banolas (PGB) another 75 cm line on the Costa Brava in December 1955 four redundant locos passed to the OGC, the earlier ones, formerly PGB Nos. 7 and 8 were by Hohenzollern in 1907 but were conventional 0-6-0 side tank locos, these were seen out of use at the harbour depot in 1963.

The other two were built as recently as 1929 by the Euskalduna Co. of Bilbao, also 0-6-OT they were PGB Nos. 18 and 19 and similarly to Nos. 7 and 8 their numbers were retained on the OGC, regrettably these locos too were out of service at the time of our visit.

Reverting back to "travellers tales" our final, glorious experience of the OGC came the following day, when we alighted from the air conditioned luxury of the TAF train on which we had travelled from Valencia after seeing the Carcagente-Denia line, at Burriana station in order to sample the pleasures of "The Panderola" again.

Unfortunately on that occasion there was not sufficient time for us to visit the Puerto at Burriana but the 'Bus waiting outside the RENFE station soon transported us into the town, a pleasant place set amidst the Orange groves and after a few enquiries we found the station situated at the back of the town.

Our train arrived, hauled by the lines No. 3 and consisted of a rake of four wheel coaches, we settled ourselves on the balcony of the last coach and in a few minutes we were drawing into the exchange station of Burriana Norte, we stepped onto the platform, obtained our last photographs of the line, acknowledged the greetings and waves from the friendly occupants of the train and crossed the road to the RENFE station and in due course were on our way to Tortosa and another choice narrow gauge line.

Happily although the O.G.C. closed entirely in August 1963 some of the locos and coaches can still be seen as Nos. 5 and 7 were transferred to that other delightful Spanish 75 cm gauge line linking the seaside town of San Feliu de Guixols to the City of Gerona in 1965 and this line, the SFG now worked by the Estado organisation can be thoroughly recommended to visiting enthusiasts who find themselves on the East Coast of Spain.



7. No. 1 0-6-0 WT at VILLARREAL

8. No. 5 at ONDA.

9. No. 3 0-6-0 WT ENTERING BURRIANA TOWN. 2.8.1963.



# **Norcon Ltd. Ripley**

**By Sydney Leleux**

A simple 2' gauge railway operates in the works of Norcon Ltd. (a Redland subsidiary), concrete pipe manufacturers, which are situated about a mile N.W. of Ripley, close to Hall's gravel pits. They may be reached from the centre of Ripley by travelling about  $\frac{3}{4}$  mile along Pyrford Lane and taking the first turning on the left. After a few hundred yards, close to a flooded gravel pit, a track joins the road on the right and this leads to the works (Grid.Ref. 170 040566). These directions are given as I had difficulty in finding the site; Ripley P.O. had never heard of the firm!

The layout of the works is a large oval about 200 yards long by 100 yards wide. Along one end and half of one side are buildings containing pipe making equipment, with the railway running close outside their walls. The remainder of the rectangular site is given over to pipe storage. The central area is served by a siding cutting across the oval. It appears once to have made connection with the main line at both ends, but now it peters out about two thirds the way across. A track enters one of the main buildings but did not appear to be in use - possibly this had been used as a loco shed.

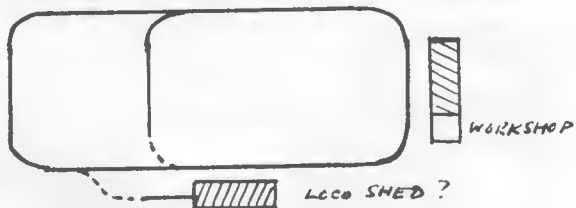
Motive power is provided by an Orenstein & Koppel diesel locomotive, No. 6193, supplied by William Jones. The components of a second locomotive, No. 7031, lie in the workshops where they are kept for spares. Behind the workshops is a cab, presumably fitted for winter use. Both No. 6193 and the cab are painted pale blue.

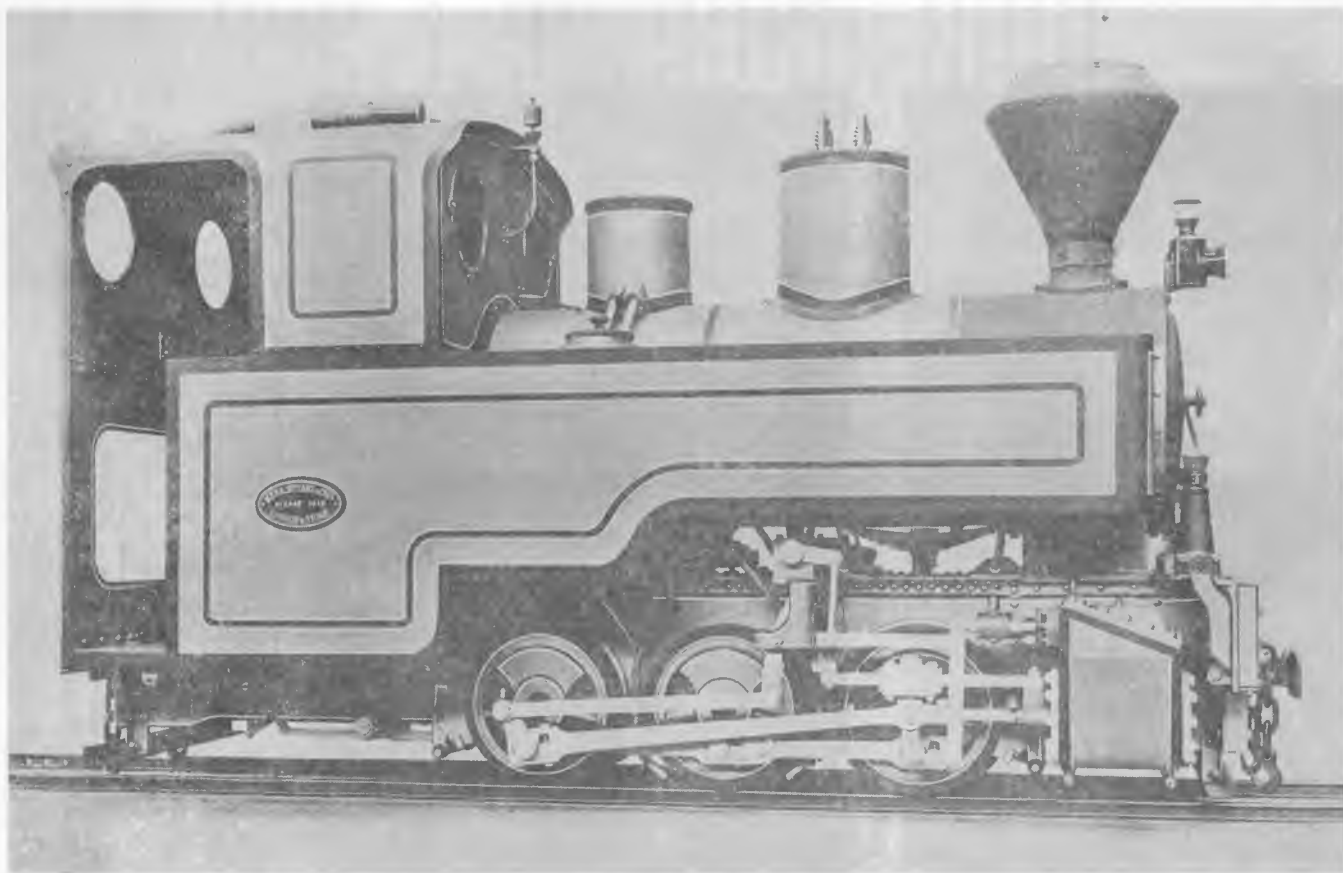
The rolling stock consists of 21 Jubilee underframes fitted with wooden floors and made into a single train.

Pipes, one per wagon, are loaded by rolling them up a ramp made from old rails. They are kept in position during transit by a pair of chocks which appeared to be old hand brushes. During unloading small pipes can be lifted off, but large ones are pushed down a crude ramp of old tyres, a thick one close to the rails followed by one or two thinner ones. The train may continue round the circuit after unloading or the empty wagons may be pushed back.

The train crew numbers three men - the driver and two loaders/unloaders who ride on the locomotive during the journey round the works.

The pipes are distributed by lorry. Sunken loading bays, which bring the lorry floor to ground level, are provided at several parts in the central stock yard.





### FRENCH GOVERNMENT ARTILLERY RAILWAYS.

Diameter of cylinders,  $8\frac{1}{2}$ ". Stroke, 11". Gauge, 60 c/m. Heating surface, 188.8 sq. ft. Grate area, 3.97 sq. ft. Tractive power, 3,863 lbs. Total weight, 10 $\frac{1}{2}$  tons, in working order.

KERR STUART No. 2445 of 1915

From R.N. Redman's Collection.

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## *Letters to the Editor*

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FROM: Rich Morris, Longfield, Dartford.

As you know, I have written to you before complaining about various issues of the N.G. Magazine (or rather, I have added my comments to those complaints received from Members writing to me).

Therefore I would like it placed on record that I am now writing in praise of the last issue - No. 45 - surely the best to date.

Just about all tastes catered for equally - Chris Down's article was very interesting to me (I'm perhaps biased on this though!!)

I was also pleased to note the inclusion of CORRECTIONS (P.26) - this proving to Members we are conscious of the need for accuracy.

One, and only one, complaint - the lack of "Letters to the Editor". However, I do realise we can't expect everything in 36 pages!!

(Thanks Rich - we can only print "Letters" if we receive them, this quarter has produced a good batch I am pleased to say. - Editor.)

FROM:- Keith Stretch, Newcastle, Staffs.

Your footnote on page 22 of the September "Narrow Gauge" was more than a little premature. The Lozere line has not closed, and is still in full operation: indeed no definite closure proposal has yet been put forward, though there can be little doubt that its future is not very bright.

The author of the article is also a little wide of the mark in supposing that the line's railcars are "The nearest thing to a railbus that you can find today in the whole of France." Even now (1967) two identical vehicles are in regular use on the neighbouring Réseau du Vivarais - normally on school specials, but also as duplicates to ordinary railcars at times of peak traffic - while at the time that the article was written, in 1965, some very similar vehicles were still working on the standard gauge Chemin de Fer de Mamers à St.-Calais, which has since lost its passenger service.

(Mr. R. Maund of Hampton in Arden also confirmed this. - Thanks. Ed.)

FROM:- Frank Stamford, Victorian Light Rly. Research Society, Australia.

While writing, I must take the opportunity to congratulate you on "The Narrow Gauge" magazine, which I regard as a leader in its field.

I note in issue No. 44 that some people have complained about the foreign content of your publication. Personally I find the great diversity of subjects covered extremely interesting, and the genuine international character of "The Narrow Gauge" is something to be proud of. I know of no other railway magazine which covers international railways so impartially, and that, together with very good presentation within the limits of off-set printing is the real strong point of "The Narrow Gauge". I, for one, would be extremely sorry to see its articles limited to purely British lines, or lines using British equipment. To me the Zillertalbahn is just as interesting as the narrow gauge lines of the Victorian Railways. In fact I think foreign lines have a special fascination because they are so much different in every respect.

I am particularly impressed with the large number of scale drawings in your publication, and only wish that I could get drawings of the same quality for Light Railways. The articles on Internal Combustion locos have also been of great interest. It seems to be natural to have a bias towards steam, but I.C. locos have their own fascination about them, and certainly should not be overlooked.

FROM:- Alan C. Baker, Newcastle, Staffs.

I was very interested in the short article on Hudswell Clarke locomotives in the latest Narrow Gauge (No. 45) about the locos for S. Pearson & Sons. I have for some time been trying to trace the location of three Bagnall locos supplied to this firm and stated to be destined to Mexico. Is it possible they also went to the Furbero Railway? They were Bagnall Nos. 1926/28 ordered in July 1910 and delivered in 1911, named "POTRERO", "SAN MANCUS" and "EL MESON". They were 0-6-0 outside cylinder engines on 2'0" gauge, they had small 4 wheel tenders, 6½" x 9" cylinders 1'7" diam. driving wheels and a 5'9" wheelbase. They were fitted with Bagnall Price valve gear and had oil firing apparatus. I notice the Hudswells were also oil fired.

Bagnalls had also supplied an earlier loco to S. Pearson in 1898, a 3'6" gauge 0-4-0 saddle tank with 12" x 18" outside cylinders named "TAMAR No. 77"; again I have no idea of its destination (Bagnall No. 1550). I would be interested in readers' comments.

FROM:- Ken Plant, Sheffield.

Brian Webb's article on Kerr Stuart I.C. locos in N.G. 42 was most interesting. Perhaps you can spare space to include the following comments.

Page 2, Para. 7. 4415 and 4418 are recorded as having McLaren-Benz engines.

Page 3. Top photo appears to depict 4412 of 1928. This was built to metre gauge but altered to 3 ft. 0 in. before despatch on 24th August 1928 to the hydro-electric scheme of Balfour Beatty & Co. Ltd. at Fort William.

Page 6, Para. 3. The first three of this type (4422, 4426 and 4427) are recorded by KS as "Diesel DX 1 (Robertson Converted Diesel Loco)".

Page 10, Para. 2. Hunslet record their 1700 as "generally duplicate of KS 4461" and with electric lighting and starting. Rolt gives further information on the Kerr Stuart diesels in "A Hunslet Hundred" but refers to 1700 (on page 120) as "hand-starting"!

The following notes on individual locos are from the various record books of Kerr Stuart, which became a little confused in the troubled times of 1929-1930; prior to this they are in good order.

- 4415 - delivered to Welsh Highland Railway July 1928 (per Boyd); to Mauritius in 1934. Weights 10-10-0. 60 h.p.
- 4418 - Weight 10-4-1. 60 h.p.
- 4419 - Weight 10-18-3. 60 h.p.
- 4422 - Supplied on 3 months' trial, then 12 monthly payments. Weight 5-0-2.
- 4426 - Supplied on hire purchase. Date ex works 20th August 1929 (not 21st November 1929 as quoted which is probably the purchase date). The original gearbox didn't last long; a replacement was sent out on 7th September 1929 and the loco set to work again on 12th September 1929. Weight 4-19-1.
- 4427 - Supplied on hire purchase. Weight 4-19-1.
- 4429 - Ex-works a second time per specification on 12th April 1930 (not 31st March 1930) to Haifa Harbour Works. Weight 5-1-0 (originally 4-18-1 (when shipped to Haifa).
- 4430 + 4431 - Weight (the pair) 20-6-3. 2 x 60 h.p. Gear supplied so that they could be worked as separate units.
- 4432 to 4434 - Weight (each) 10-3-1.
- 4460 - Weight 4-18-3.

- 4461 - Ex-works on 14th November 1929 per Shipping Specifications which are in chronological order. (Date misquoted as 14th December 1929 in main KS ledger). Despatched to S.A. Ciments de Chalkis Portland Artificials. Weight 4-17-1.
- 4466 - 60 cm gauge (not 2 ft. 0 in.) Shipped to Shanghai for the Asiatic Petroleum Co. (N.C.) Ltd. on Gough Island; this was the first overseas despatch after the appointment of Sir W.H. Peat, K.B.E., as Receiver & Manager. Weight N/K.
- 4467 - A 20 h.p. Simplex loco was taken in part exchange from Boam.
- 4468 - Ledgers disagree on date ex-works; it was either 23 or 24/4/1930. Delivered to Penlee Quarries "with old engine from 4429". Weight 4-0-1.
- 4470 - Date is 1930. Nuttal should read Nuttall. Delivered to a contract at Shap (not Trafford) on three month's trial with option to purchase. Date of despatch not known, nor whether purchased, nor what happened to it. Weight N/K.
- 4471 - I don't think this loco was ever completed. It seems doubtful whether more than one 30 h.p. loco would be exhibited at the 1930 Scarborough Show, and 4467 is shown as delivered to Boam "direct from the Scarborough Exhibition". Weight N/K.
- 4473 to 4476 - 2'6" gauge (not 2'0"). Dates ex-works in 1930 were 7th June, 17th June, 5th July and 5th July. The approximate loaded weight of all four was 15 tons.
- 4477 - Definitely not completed. This order was transferred and supplied as loco 4467.
- 4478 to 4482 - These four (and presumably 4477) were only ordered for stock; no purchaser is mentioned.



Narrow Gauge in the Isle of Purbeck. "QUINTUS" pauses in the woods near Creech Grange. July 55.

Photo by Ivo Peters.

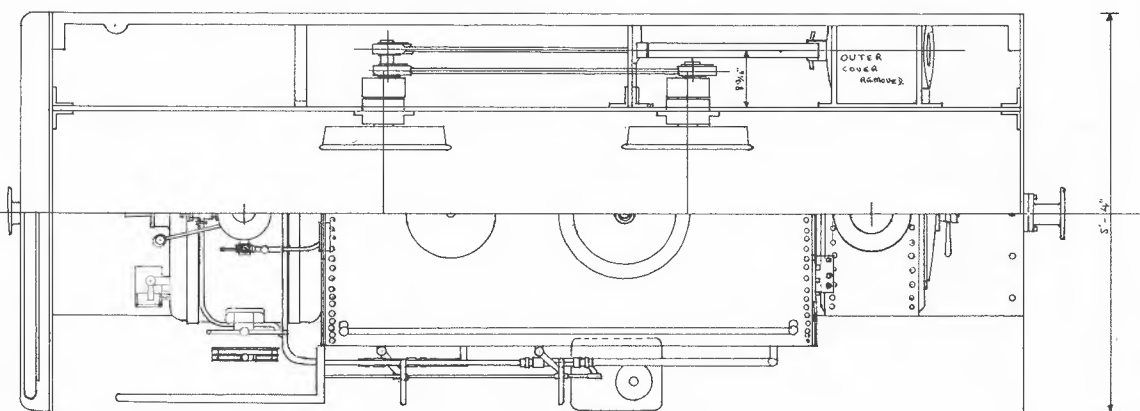
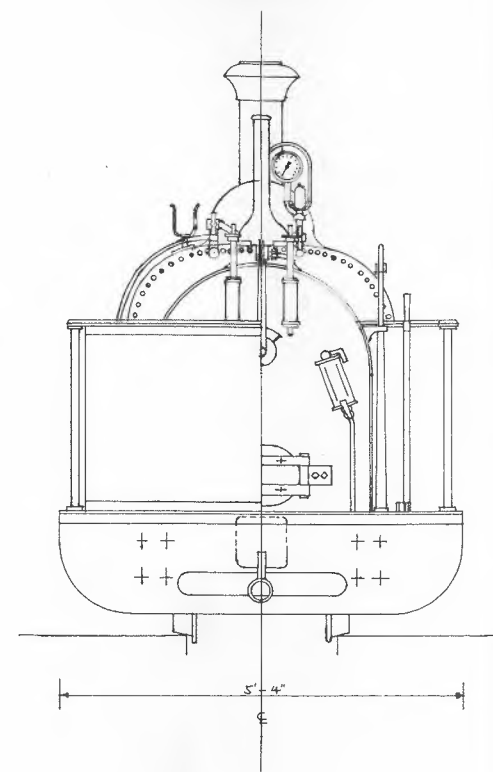
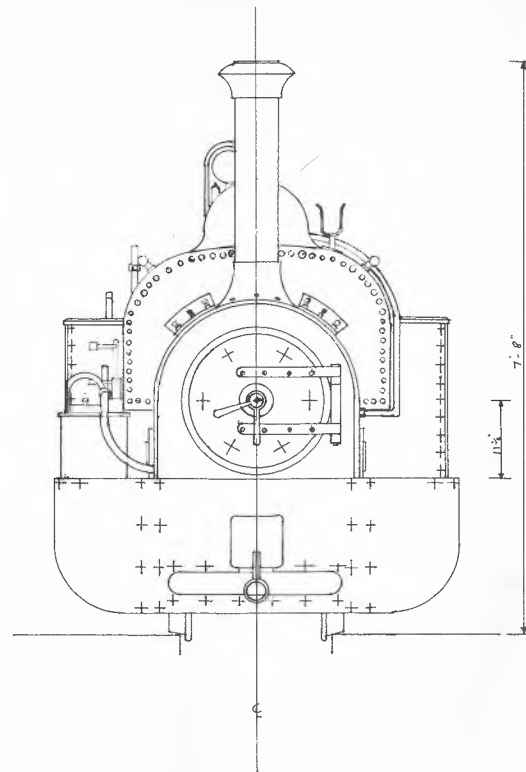
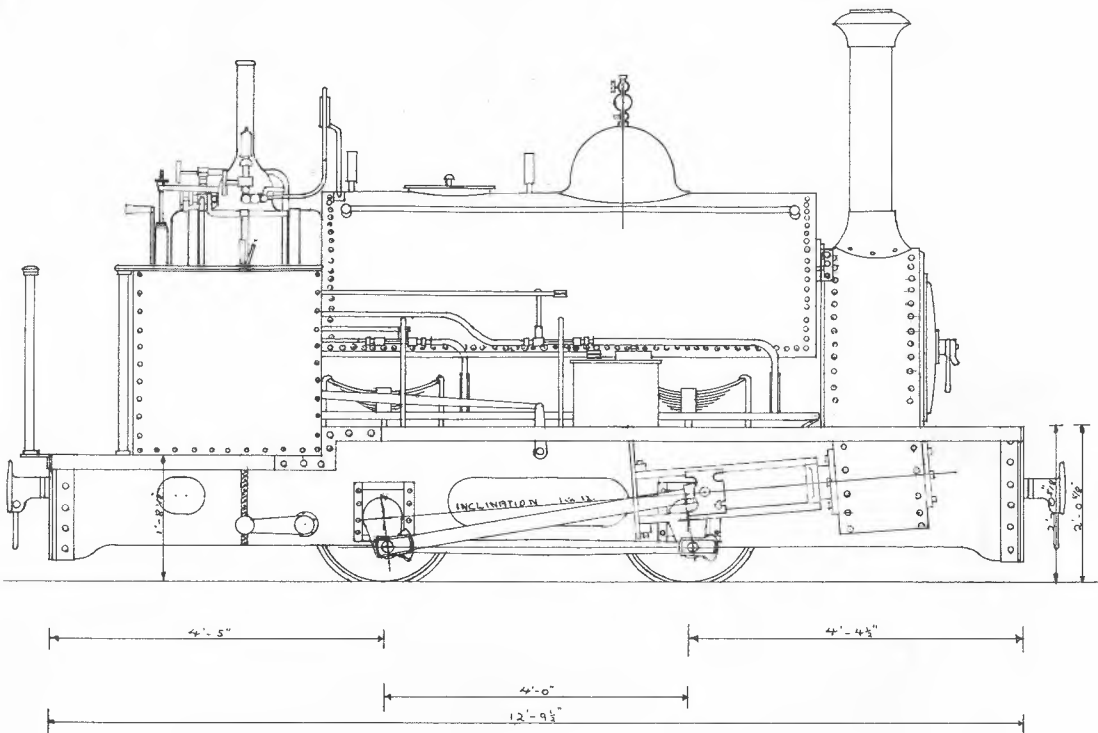


# **"WINIFRED"**

**HUNSLET 364 of 1885**

By A. Stapleton Garner





# WINIFRED

PENRHYN QUARRIES.

(as built, except for smokebox door.)

Gauge : 1' 10 3/4"

Diameter of Wheels : 1' 8 1/4"

Diameter of Cylinders : 7"

Length of Stroke : 10"

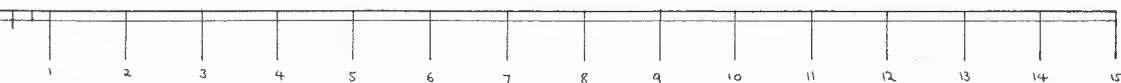
Capacity of Tank : 150 Gallons.

Capacity of Coalbox : 4 1/2 Cubic feet.

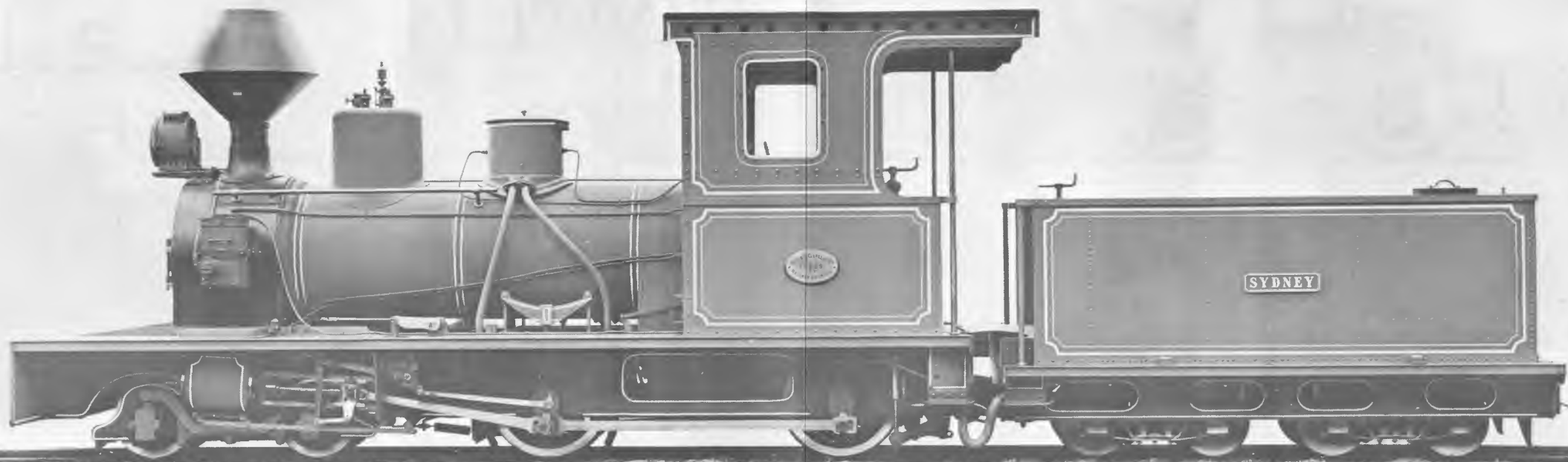
Heating Surface : 33 Tubes 1 3/4" Outside dia.  
Firebox (above bars)

Total 122 sq. ft.

Grate Area : 2 3/4 sq. ft.



*ed. Stapleton - Gower*



# The Narrow Gauge Locomotives of Hudswell Clarke & Co. Ltd.

## PART 6

R. N. REDMAN

Hudswell Clarke & Co. Ltd. No. 1118 of 1915 "SYDNEY"

Left the Works Aug. 16th, 1915.

8½" x 12" outs. Cyls. 2'0" Gauge

Wheels 2'6" Coupled Bogie 1'8" Dia.

Tender 1'6"

Rigid Wheel Base 6'3" Working Pressure 160 lbs. sq.in.

Weight in Working Order Engine 12 tons 15 cwt.

Weight in Working Order Tender 8 tons 12 cwt.

Cost New £1,300.

Order by Parbury Henty & Co.

For C.S.R. Fiji Free Passenger Service.

(See photo of model by Don Boreham 16 mm to 1 ft. on page 17 of Issue No. 45)

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### DRAWING SERVICE

Colin Wilson, 32 Crown Road, Portislade, Sussex, has available

"GOWRIE" 2 sheets 16 mm to ft.

1 sheet 1½" to ft. (motion)

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"BEDDGELERT" 1 sheet 5/8" to ft.

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"WINIFRED" 1 sheet 16 mm to ft.

3/6 + 6d.

Please support this service, the larger size drawings are superb.

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# Promeneurs, Touristes !

## UN BUT D'EXCURSION LE DIMANCHE

Comme au temps jadis, empruntez le **PETIT TRAIN A VAPEUR**  
qui vous fera parcourir la campagne gâtinaise.

**Rendez-vous au Musée des Transports de PITHIVIERS (Loiret)**

Ouvert **TOUS LES DIMANCHES ET JOURS FÉRIÉS** du 1<sup>er</sup> MAI au 15 OCTOBRE de 14 h. 30 à 18 h. 30

Les départs ont lieu de l'ancienne gare du tramway de Pithiviers à Toury dans les emprises de la gare S. N. C. F.

