

Dave

4-Dec-06

Here are the various items sent by PE. Received 10.45 pm this evening.
Best wishes Alan

alan-fozard

From: pgrail [pgrail@venturenet.co.za]
Sent: 04 December 2006 11:47
To: alan-fozard@supanet.com
Subject: Loco info.

Dear Mr Lodge,
attached in promised details of the locomotive we spoke about. Feel free to return this up in any way you think fit - perhaps you could let me know the outcome, for interest's sake only

Dear Alan,

Attached for Dave is:

- Arrangement drawing of loco. This is in AutoCad2000/2000LT
- Excel document of LSN dimensions
- Photos

Brief details are:

1. Plate frames
2. Roller bearings throughout
3. Multi ledge slidebars
4. Franklin type automatic axlebox wedges
5. Hardened wear liners on all axlebox wear surfaces
6. Delta type leading truck with inverted rocker side control

D available

25/12/06.

John Stirland

The loco is owned by Trevor Stirland, Exmoor Steam Railway. Tel: 01598 710711. Email is exmoorsteam@LineOne.net (or was, in any case they are not too good at replying to emails so phone is best).

Best regards,

Phil

John Stirland advised when telephoned that they were open to offers on regards progressing the project further.

D available tel 01463 245881.

78 Reay St,
Inverness.
IV2 3AL.

Phil 2.8.06
ellis-526t@compuserve.com

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Principal dimensions LSN 2-6-0 Page 1

Engine unit			
No. of cylinders	2		
Cylinder dia x stroke mm	200 x 330		
Piston swept volume front m ²	0.03016		
Piston swept volume back m ²	0.03028		
Piston valve diameter mm	120		
Piston valve lap mm	25		
Piston valve lead mm	3.5		
Max piston valve travel mm	100		
Valve dia. x lap : cyl dia ²	0.075		
Cylinder clearance volume %	8		
Boiler			
Boiler pressure kPa	1550		
Grate area m ²	0.387		
Small tubes - number	41		
Small tubes bore & OD mm	26.6/33.4		
Large tubes - number	6		
Large tubes bore & OD mm	102.3/114.3		
Length between tubeplates mm	2498		
Superheater elements type	A		
Number of elements	12		
Element bore/outside dia mm	26.6/33.4		
Heating surface water side			
Firebox m ²	2.328		
Small tubes m ²	10.746		
Large tubes m ²	5.382		
Total evaporative heating surface m ²	18.456		
Superheater area steamside m ²	4.41		
Firebox volume m ²	0.335		
Firebox volume/grate area	0.865		
Total evap. heating surface/grate area	47.68		
Superheater area/grate area	11.3		
Length equiv. dia ratio small tubes	94		
Length equiv dia ratio large tubes	89.5		

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Principal dimensions LSN 2-6-0 Page 2

Live steam circuit, flow area through

Dry pipe

Regulator

Superheater elements cms²

66.68

Branch steam pipes (2) cms²

95.32

Gas circuit:

Free air area through grate/grate area

0.1

Mean gas flow area through small tubes m²

0.0228

Mean gas flow area through large tubes m²

0.0308

Total small and large tubes m²

0.0536

Total mean gas flow area/grate area

0.1385

Exhaust steam circuit:

Flow area of exhaust passages at

junction from R & LH cylinders cms²

81.7

Number of blast nozzles

1

Blast nozzle flow coefficient approx

0.97

Blast nozzle tip area nominal cms²

23

Blast nozzle tip area effective cms²

22.31

Number of chimneys

1

Chimney choke mixing area cms²

201

Chimney exit area cms²

1052

Chimney choke/effective nozzle area

9

Chimney exit area/choke area

5.23

Chimney length m

1.68

General:

Coupled wheels number

6

Coupled wheels diameter mm

660

Adhesive weight kN

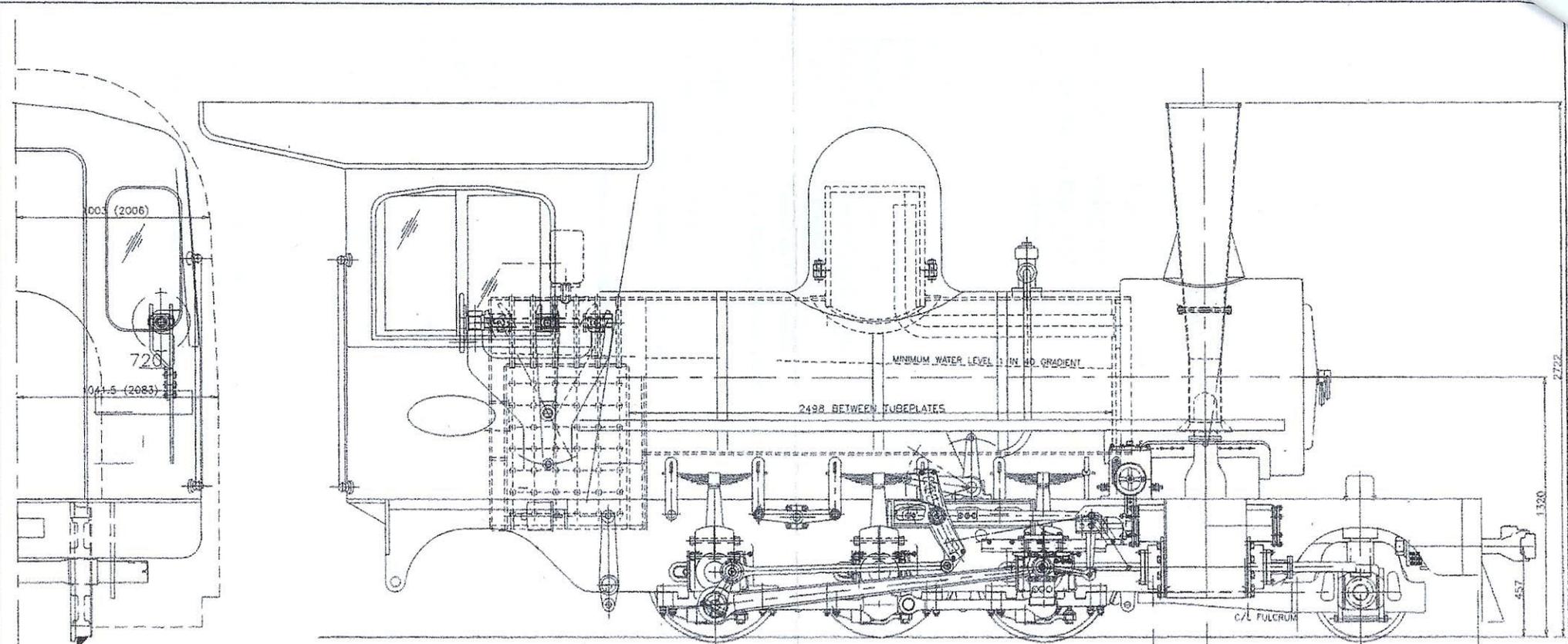
103

Wheel rim tractive effort 25% adhesion kN

25.8

Sustainable drawbar power at 35 km/hr kW

150



600 (2006)

720

1041-5 (2083)

MINIMUM WATER LEVEL 1 IN 80 GRADIENT

2498 BETWEEN TUBEPLATES

610mm GAUGE

1680

850

850

638

1075

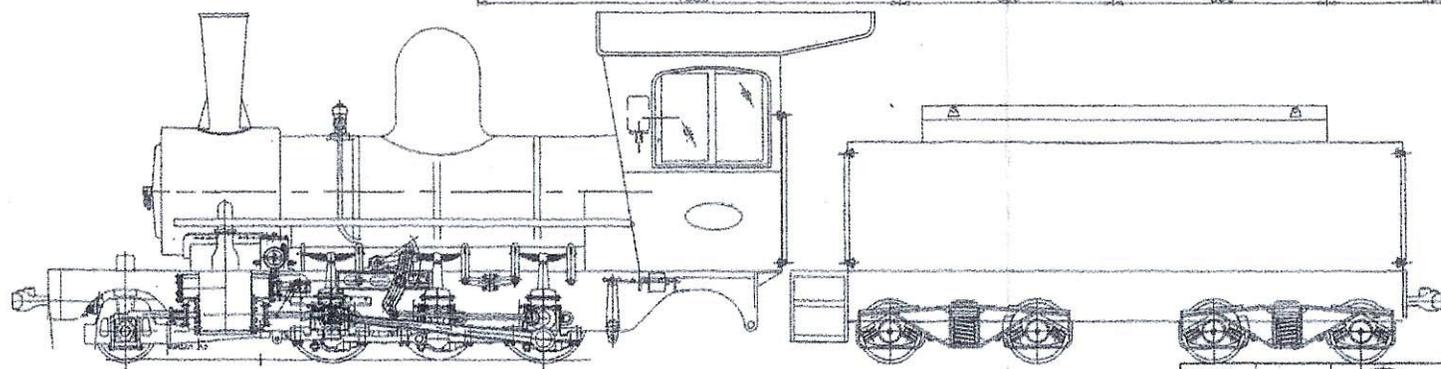
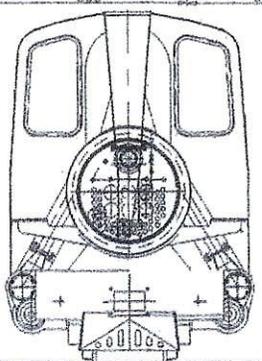
800

600

2722

1320

457



DRAWN	
CHECKED	
SCALE	1:10 & 1:2
DATE	12/2005



GIRDLESTONE & ASSOCIATES
 P O Box 668, Umtentweni, 4235, South
 083 3012590/+27 396951187
 pgrail@venturenet.co.za



MATERIAL

A1

LSN 610mm GAUGE 2-6-0
 ARRANGEMENT

DRG
 No.

ALL DIMENSIONS +/- 0,25 EXCEPT WHERE STATED