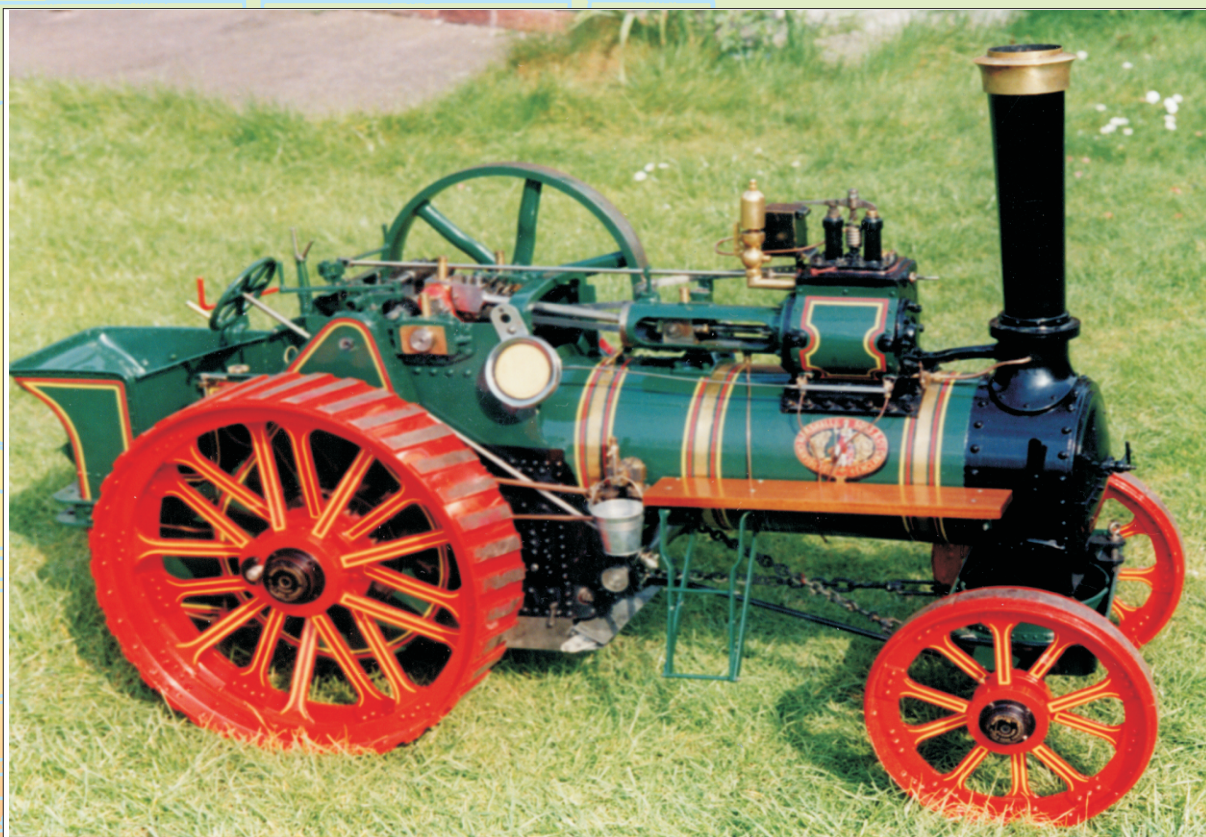


BRUNELL

STEAM MODEL ENGINEERING



MODEL STEAM ENGINE SPECIALISTS

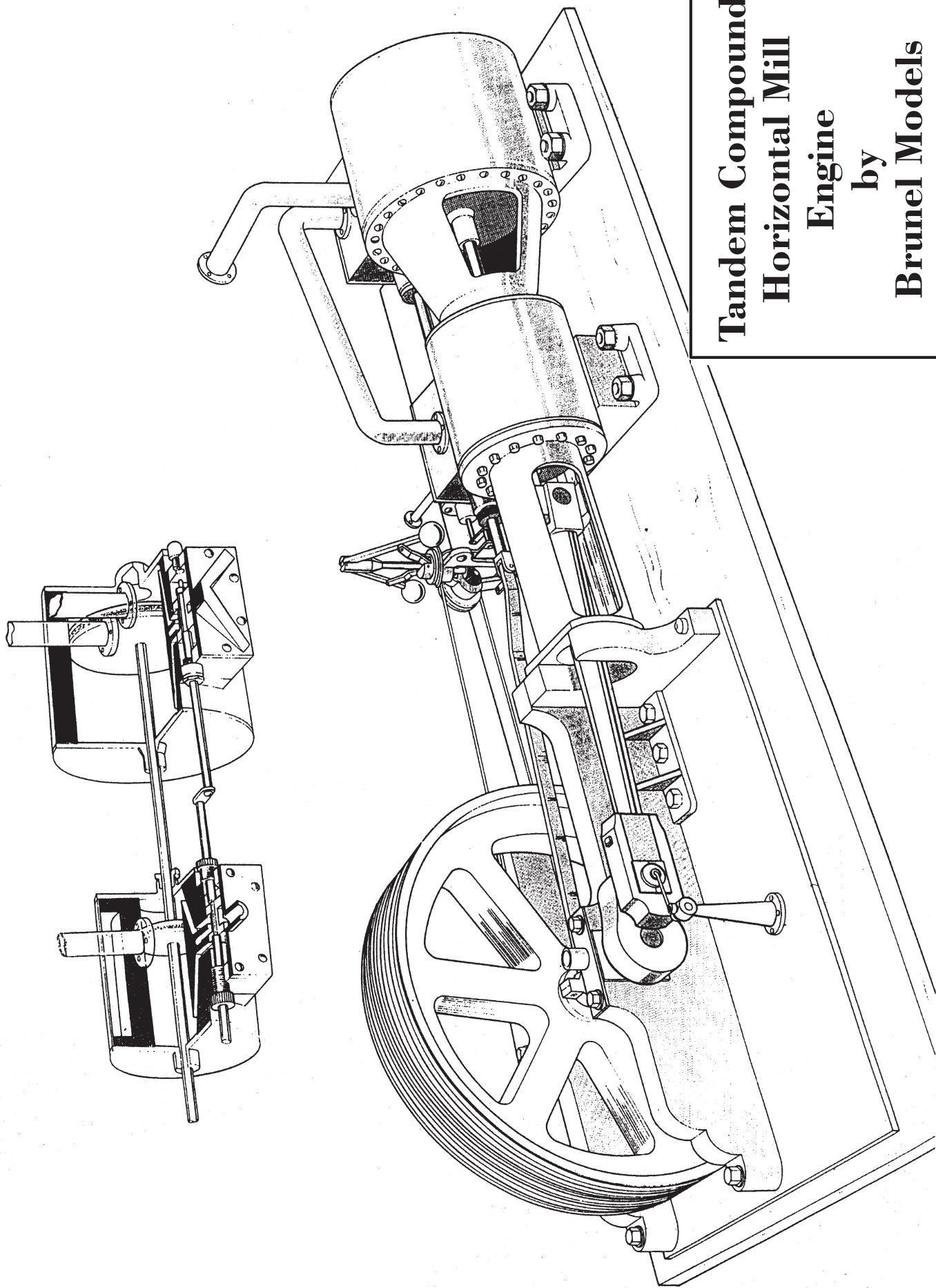
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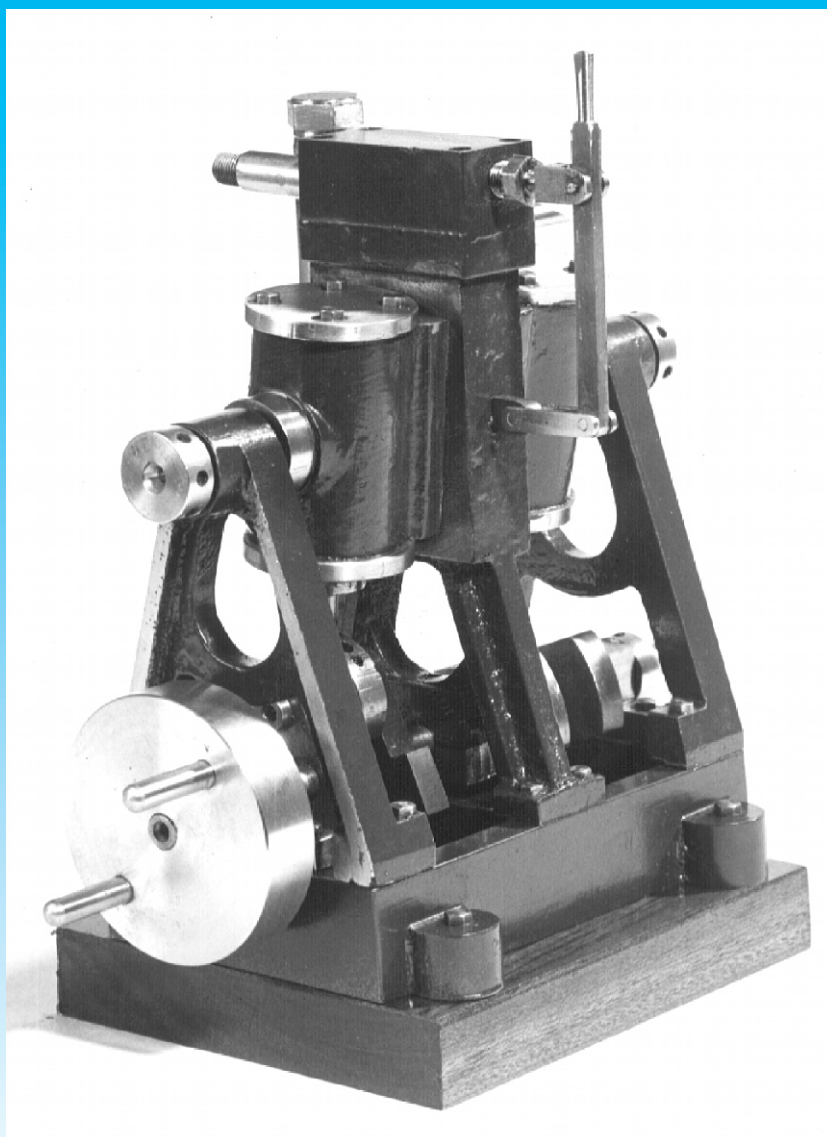
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BRUNELL STEAM MODEL ENGINEERING TRADING AS BSME

**Tandem Compound
Horizontal Mill
Engine
by
Brunel Models**



THE 'ALPHA' TWIN MARINE ENGINE



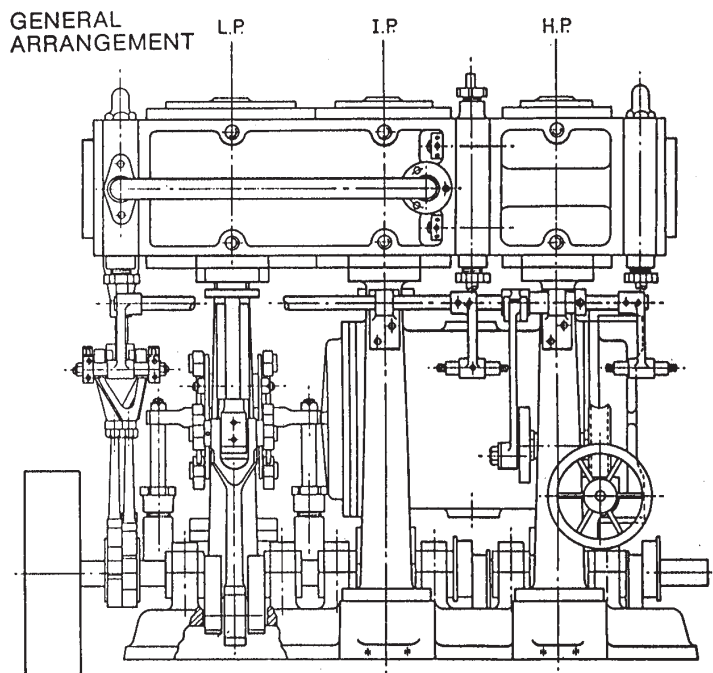
We have designed a small and useful twin cylinder reversing oscillating Marine Engine specially for the Model Engineer with a small lathe and only a limited amount of time to spare.

The reversing mechanism is a simple slide valve on top of the centre block and does away with complicated valve gear. It is very powerful for its size, but like all oscillating engines, it does use a little more steam.

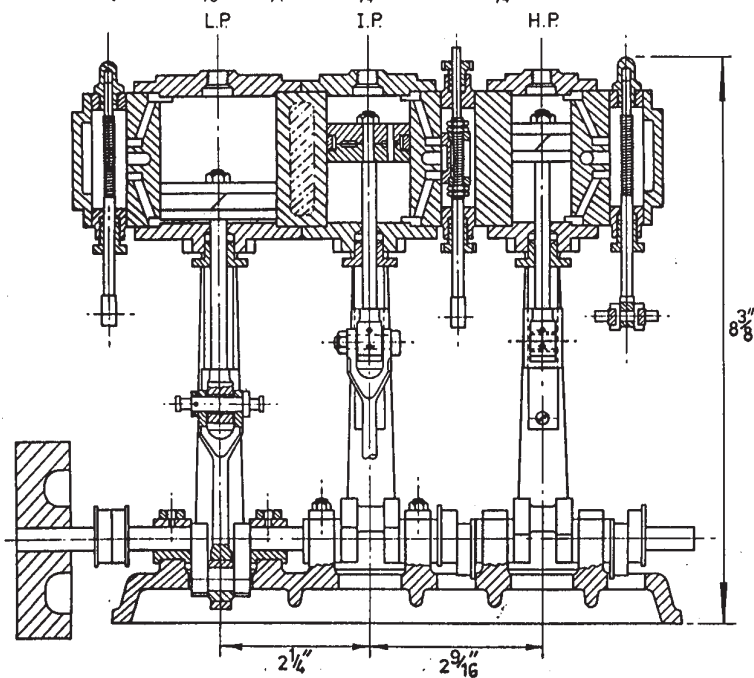
Cylinder $\frac{5}{8}$ " Bore x 1" Stroke. Base length $4\frac{1}{16}$ " Height $6\frac{1}{4}$ "

A 1	Base	A 5	Cylinders Covers
A 2	"A" Frames	A 6	Bearings
A 3	Centre Steam Block	A 7	Steam Valve Block
A 4	Cylinders Block	A 8	Pistons

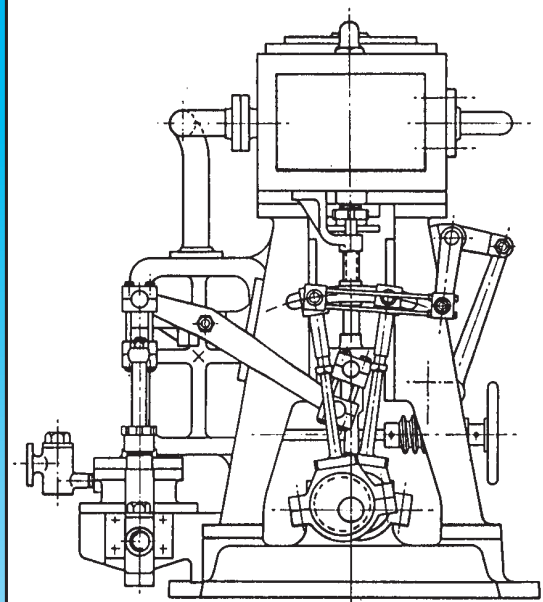
TRIPLE EXPANSION MARINE ENGINE



Cylinders: $\frac{7}{8}$ in. $1\frac{1}{4}$ in. & $1\frac{3}{4}$ in. bore \times $1\frac{1}{4}$ in. stroke



PART SECTIONAL ELEVATION



END ELEVATION FROM L.P. CYLINDER

TM 1	LP. / I.P. Cylinder block
TM 2	H. P. Cylinder Block
TM 3	L.P. Valve Chest
TM 4	I. P. Valve Chest
TM 5	I. P. Valve Chest
TM 6	H.P. Valve Chest
TM 7	H.P. Steam Flange
TM 8	Top Cylinder Covers
TM 9	Bottom Cylinder Covers
TM 10	Valve Chest Covers
TM 11	Valve Rod Lower Guide
TM 12	Slide Valves
TM 13	Valve Buckles
TM 14	Pistons
TM 15	Cross Heads
TM 16	Main Bearing Brasses
TM 17	Flywheel
TM 18	Bed Plate
TM 19	Condenser (Incorporating 3 & 5)
TM 20	End Cover 'A'
TM 21	End Cover 'B'
TM 22	Weight Shaft Bearing
TM 23	Standards
TM 24	Eccentric Strap
TM 25	Valve Rod End
TM 26	Reversing Hand Wheel
TM 27	Air Pump Base
TM 28	Air Pump Cylinder
TM 29	Pump Cylinder Cover
TM 30	Rocker Bearing & Piston Rod Guide
TM 31	Air Pump Delivery Check Valve
TM 32	Water Pump Cylinder
TM 33	Valve Box
TM 34	Main Stop Valve
TM 35	Main Stop Valve Flanges

The Triple Expansion Marine Engine is a very good representation of the larger type of marine steam engine

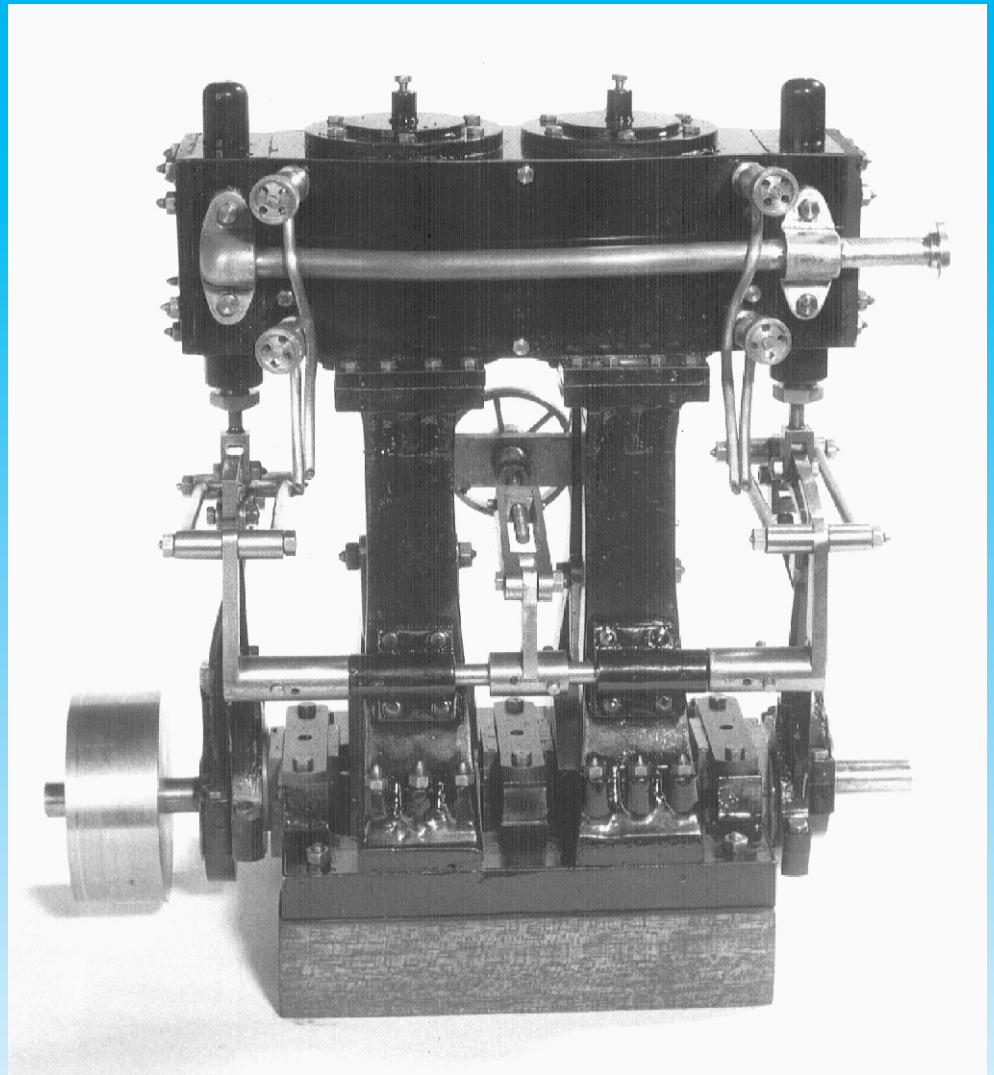
Cylinders $\frac{7}{8}$ ", $1\frac{1}{4}$ " and $1\frac{3}{4}$ " Bore \times $1\frac{1}{4}$ " Stroke.
Height 8 $\frac{3}{8}$ " Length 8 $\frac{5}{8}$ " Weight about 25lbs.

The second constructional series for this popular model started in the Model Engineer 16th August, 1985.

By J. P. Bertinat Original design by O. B. Bolton

THE 'CUNARDIA' MARINE ENGINE

This fine twin cylinder Marine Engine has to be seen to appreciate the fine lines and robustness of construction. It was designed on the same lines as a full size Liner engine of the late Victorian era, having split bearings, Stephenson link valve gear and screw reverser. It is reasonably easy to make and a joy to look at, quite at home as a working stationery engine, or on the mantelpiece.



Cylinder 1" Bore x 1" stroke Overall length 7. 1/2" Overall height 7. 1/2"

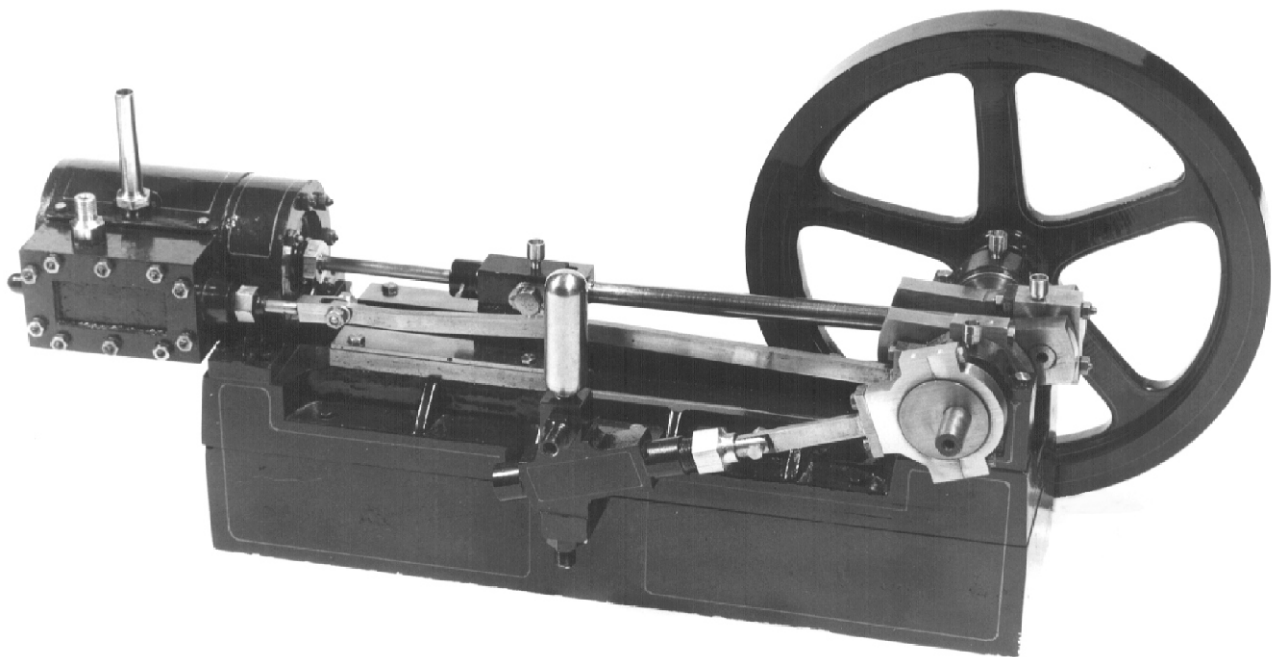
Recommended working pressure 50 psi Weight approx. 9. 3/4 lbs.

All castings are of Gun Metal, the Bed Plate is Aluminium.

C.1	Cylinder Block
C.2	Cylinder Bottom Covers
C.3	Cylinder Top Covers
C.4	Main Columns
C.5	Bed Plate
C.6	Crossheads
C.7	Main Bearings

C.8	Steam Chests
C.9	Steam Chest Covers & Valve
C.10	Valve Rod Guides
C.11	Big Ends
C.12	Eccentric Straps
C.13	Steam Pipe Connectors & Reverser Brackets
C.14	Pistons

THE 'HOTSPUR' HORIZONTAL ENGINE



This fine Horizontal Steam Engine has been designed for the beginner with a little turning and simple milling experience.

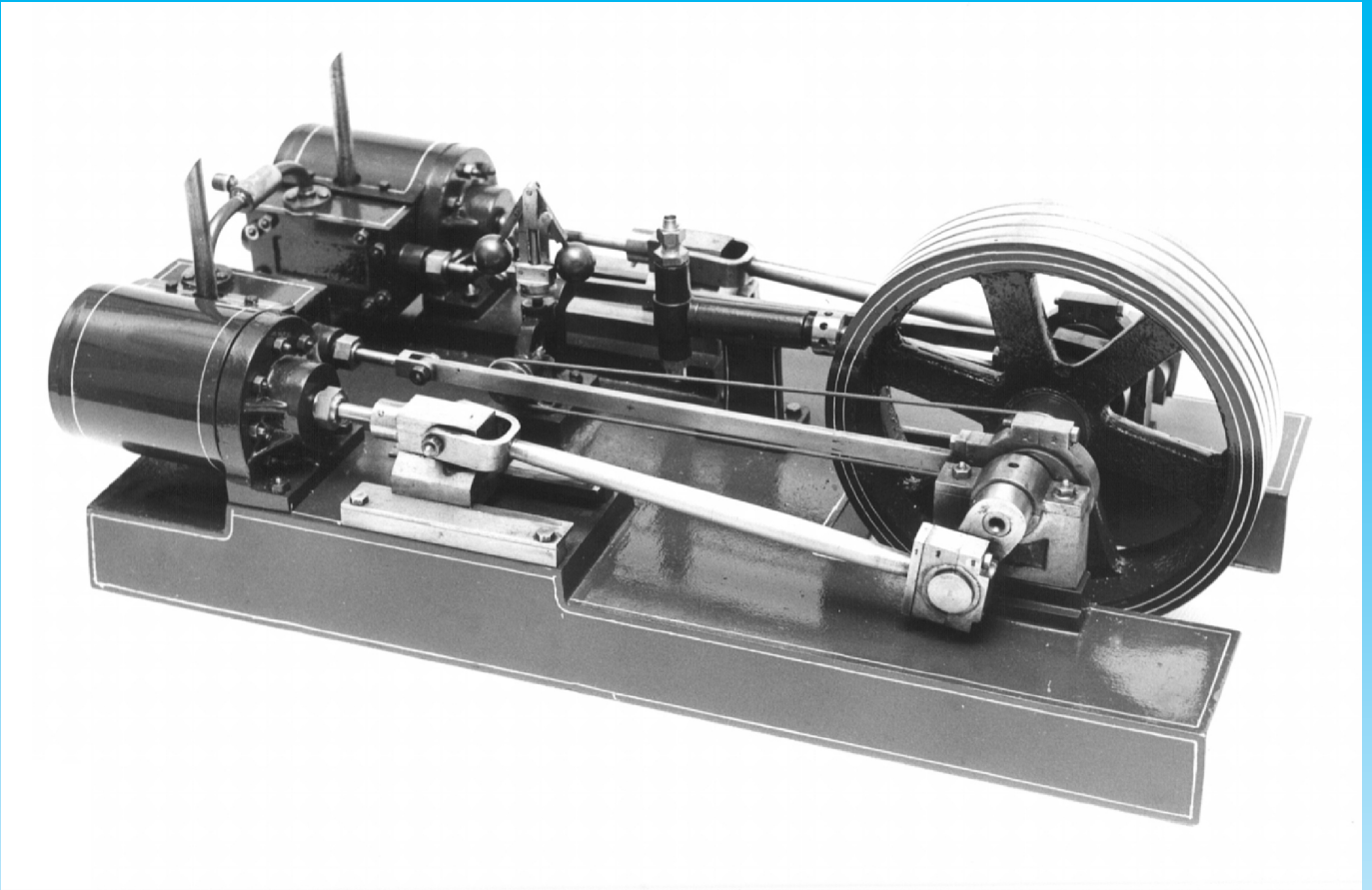
It is based on a typical engine of the Late 19th Century, having a simple slide valve and a very useful working water feed pump and compression bottle.

Cylinder 7/8" Bore x 1 1/2" Stroke. Base length 10" Flywheel 6 1/4"

H 1	Lower Base
H 2	Base
H 3	Cylinder
H 4	Steam Chest
H 5	Steam Chest Cover and Valve
H 6	Cylinder Front and Piston

H 7	Cylinder Support Block
H 8	Crosshead
H 9	Eccentric Strap
H 10	Main Bearings
H 11	Water Feed Pump
H 12	Flywheel

THE DOUBLE 'HOTSPUR' HORIZONTAL ENGINE



This is a twin cylinder version of the popular 'Hotspur' single cylinder engine. The bore and the stroke are the same as the single cylinder 'Hotspur'. The open ended cranks are 90° to each other to enable the engine to start in any position. There are also provisions made for fitting an axle driven water feed pump, and a governor.

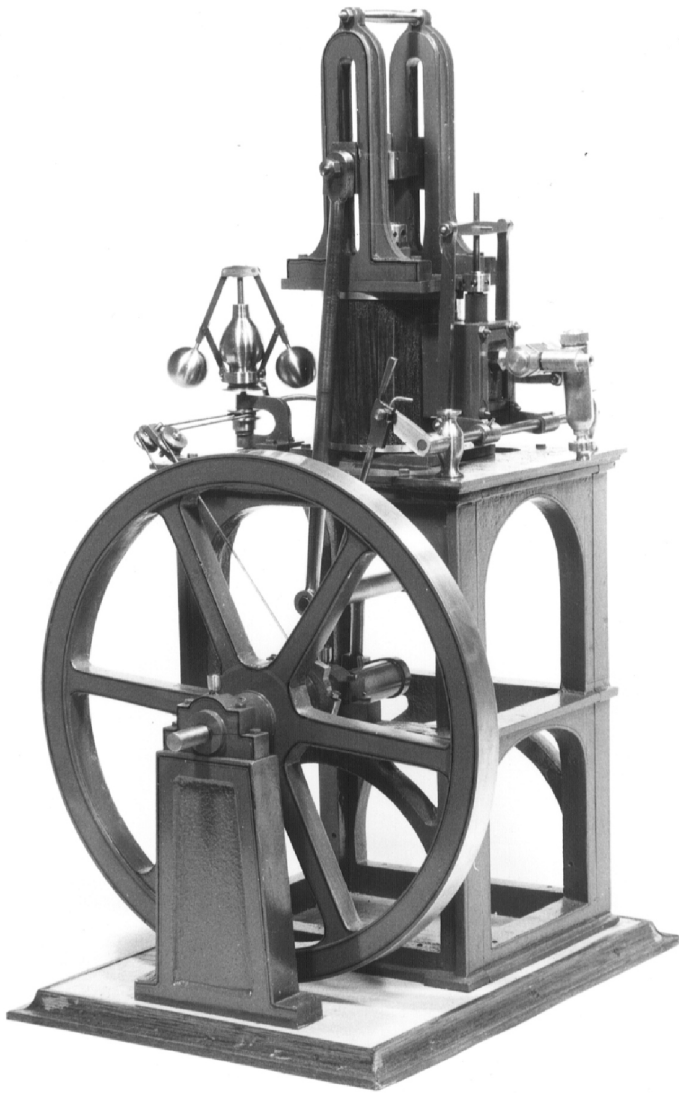
The base is offered separate from the main engine castings so that modellers may, if they wish use a wooden block with 1/8" BMS bed plates which keeps the price down. The cast aluminium base is offered with the top bed plate surface machined flat. For mounting on a wooden block.

Cylinder 7/8" Bore x 1 1/2" Stroke. Base 13 1/2" x 7 3/4" Flywheel

DH 1	Cylinders
DH 2	Cylinder Covers
DH 3	Steam Chest
DH 4	Steam Chest Covers & Valve
DH 5	Cylinder Support Block
DH 6	Cylinder Front and Piston
DH 7	Crossheads

DH 8	Eccentric Straps
DH 9	Main Bearings
DH 10	Water Feed Pump
DH 11	Water Feed Pump Stand
DH 12	Governor Stand
DH 13	Flywheel
DH 14	Base Machined (Optional)

THE 'TAYPORT' TABLE ENGINE



An early type of Table Engine is what we had in mind when designing this fine Engine, It is typical of the type used for general work in the early Nineteenth Century.

The Model is fitted with a Watt Governor, Shut Off Valve and Displacement Lubricator.
A very useful engine to run model machinery.

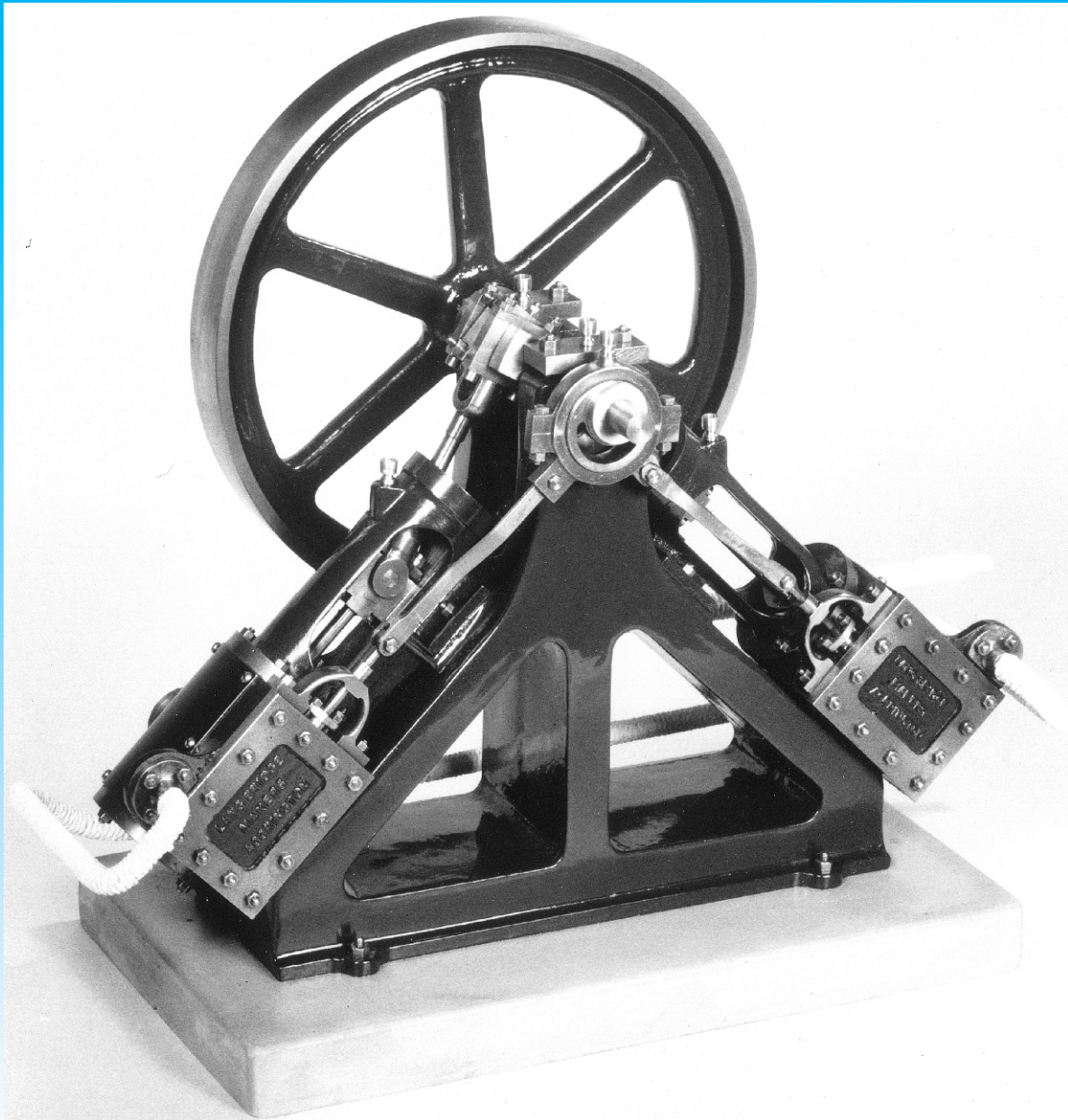
Cylinder 1" Bore x 2" Stroke. Flywheel 9" dia.

Table Width 6 1/2" x 5 3/4" Height 16 3/4"

T 1	Table Front and Rear
T 2	Table Sides
T 3	Table Top
T 4	Main Bearing Support
T 5	Cylinder Covers
T 6	Slide Bar Brackets
T 7	Steam Chest

T 8	Eccentric Strap, Valve & Cover
T 9	Cylinder Block
T 10	Crank Arm
T 11	Piston
T 12	Bearing Castings
T 13	Flywheel

DOUBLE DIAGONAL STEAM ENGINE



This unusual cylinder configuration was originally used for Marine propulsion and was patented by Brunel in 1822. Later the design was used by the bleaching, dyeing and finishing trades where, due to the nature of the work, separate independent drives to each machine were most convenient.

This model is of an engine made by Lang Bridge Ltd., of Accrington and was used to drive a calico printing machine. Built in 1903, the prototype can be seen as a running exhibit in the Northern Mill Engine Society's museum at Bolton, Lancashire.

Details of this accurate 1/8 scale model are as follows:-

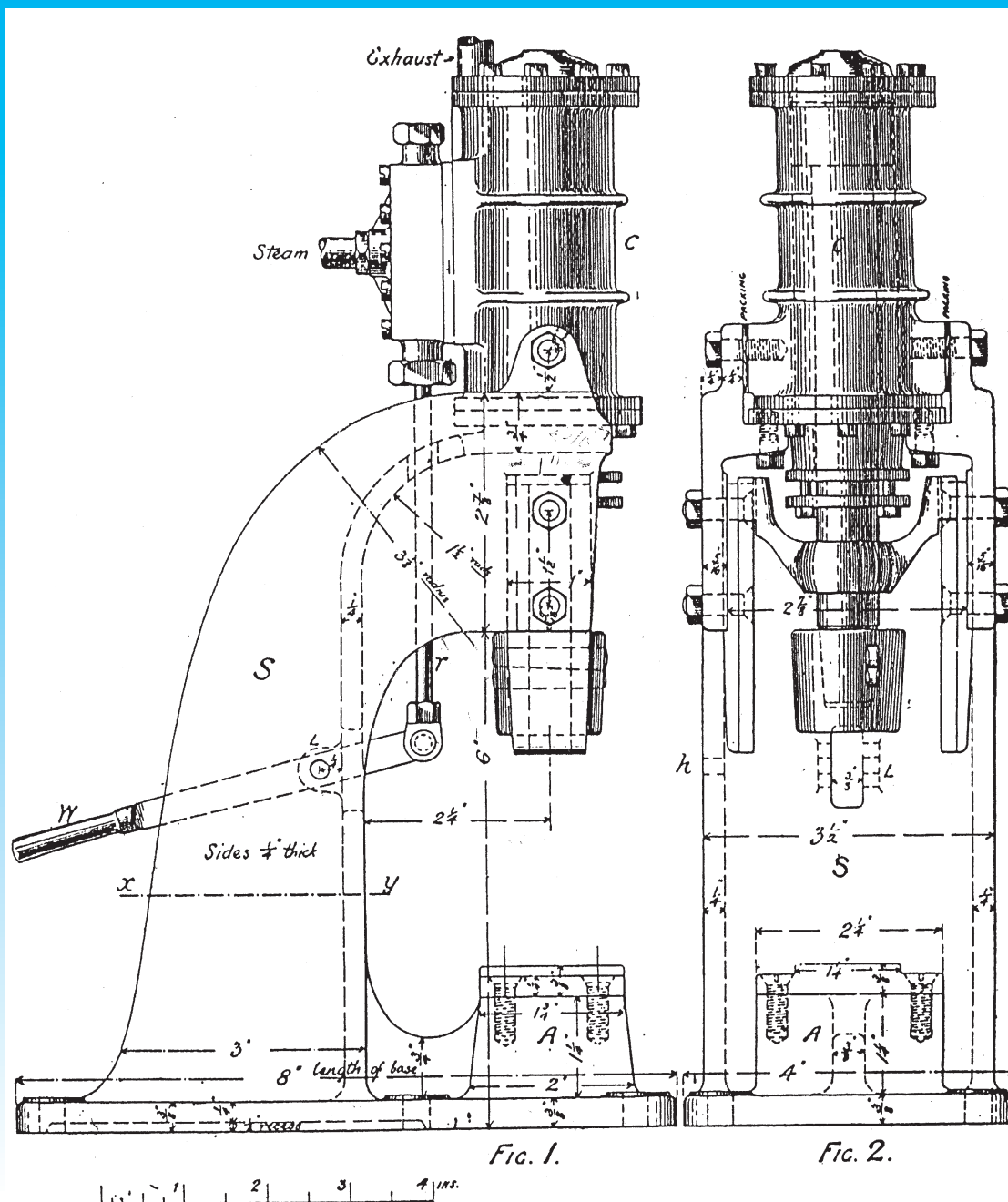
Bore $\frac{3}{4}$ ". Stroke $1\frac{5}{8}$ " Flywheel $7\frac{3}{8}$ ".

Overall size:- Length 12". Width 5". Height $10\frac{1}{2}$ ".

A set of drawings includes all details and a full size General Arrangement.

We are very pleased to offer this unusual engine which was originally marketed by Helix Engineering.

A MODEL STEAM HAMMER



This robust Steam Hammer capable of useful work was first offered to the model engineer in the *The Model Engineer and Amateur Electrician* in June, 1899.

We are sure you will find it as interesting now as it was then to build and work.

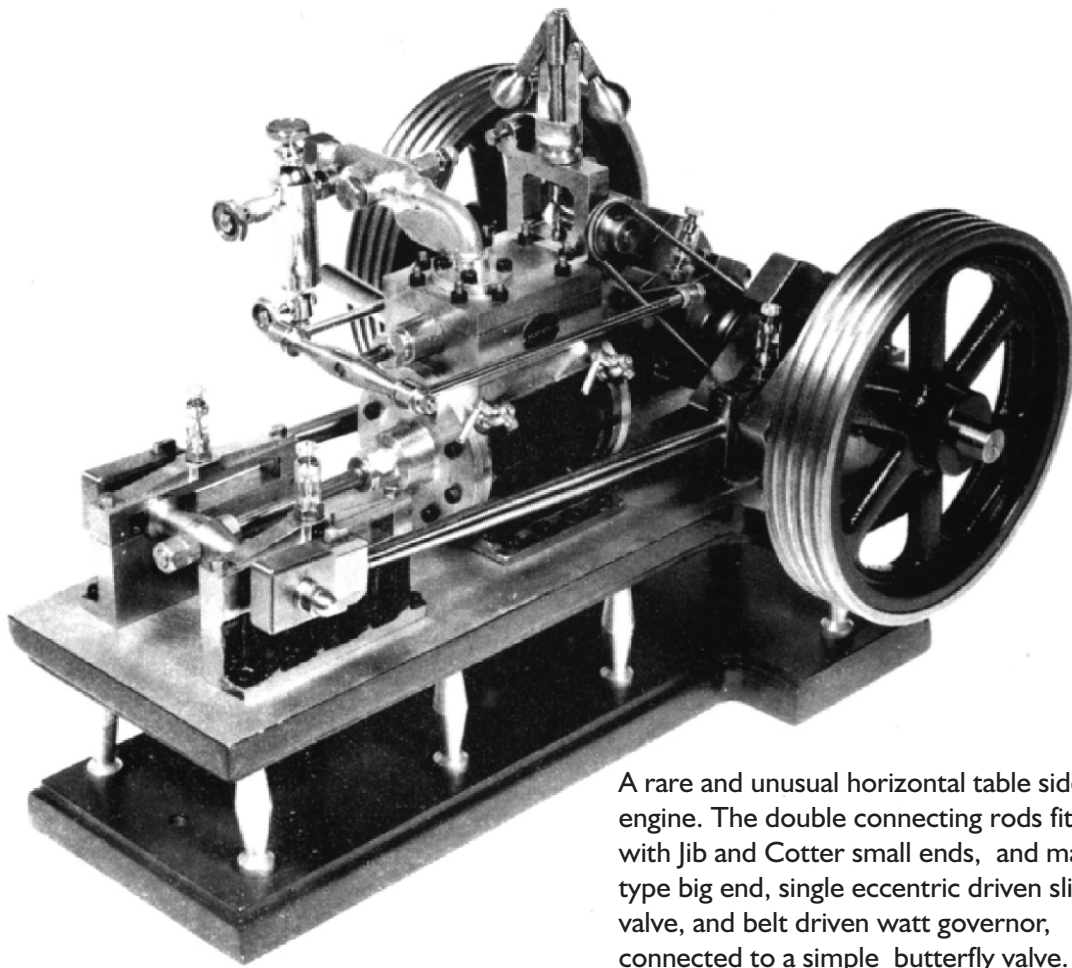
Bore $1\frac{1}{4}$ ". Stroke $2\frac{3}{4}$ ".

Long 8". Wide 4". Height $12\frac{3}{4}$ ".

SH 1	Standard
SH 2	Cylinder
SH 3	Cylinder Covers
SH 4	Gland
SH 5	Steam Chest
SH 6	Slide Valve

SH 7	Steam Chest Gland
SH 8	Piston
SH 9	Shock Buffer
SH 10	Hammer Head
SH 11	Guide

SIDE ROD



A rare and unusual horizontal table side rod engine. The double connecting rods fitted with Jib and Cotter small ends, and marine type big end, single eccentric driven slide valve, and belt driven watt governor, connected to a simple butterfly valve.

It is quite easy to make and has a small wide flywheel.
The model illustrated has been highly personalised showing what a little imagination and a second flywheel can do.
The base is aluminium and should not require machining the flywheel cast iron, and the rest of the castings are gun metal.

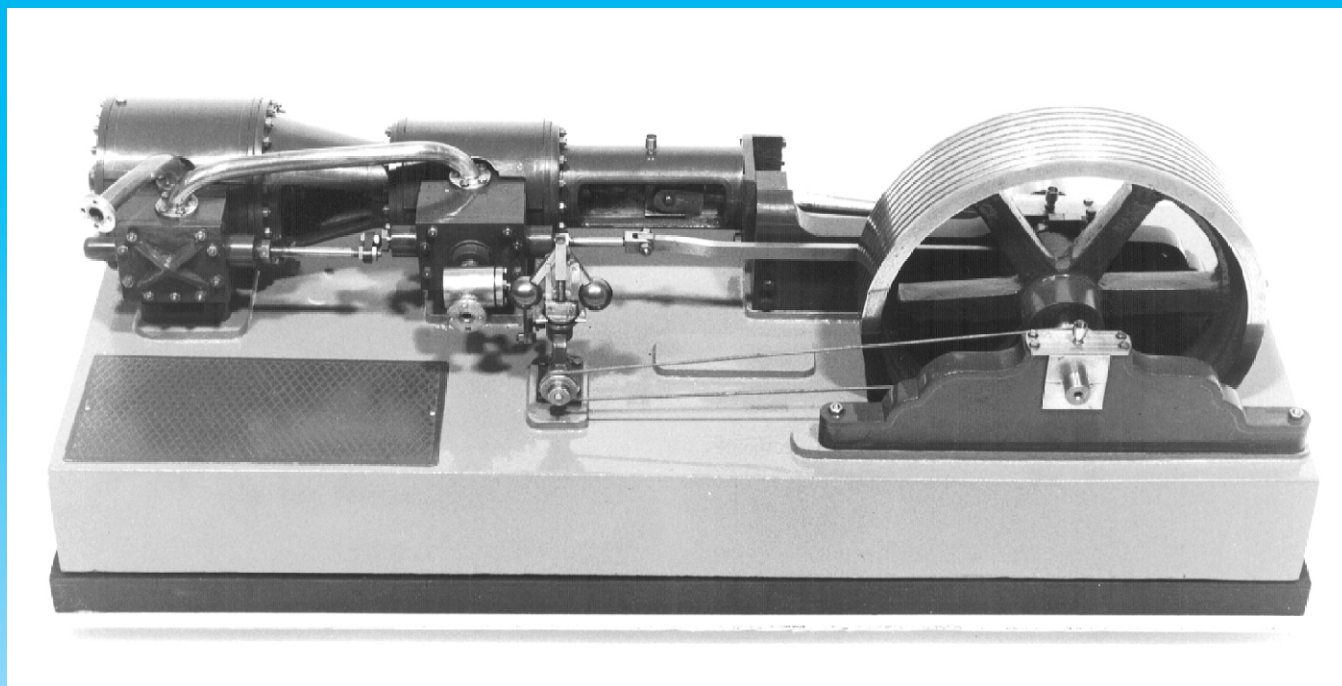
Cylinder 1" Bore x 1 1/2" Stroke. Flywheel 5" dia. Base 10"

S 1	Base Top and Bottom
S 2	Cylinder
S 3	Cylinder Covers
S 4	Steam Chest
S 5	Eccentric Strap, Steam Chest Cover & Valve
S 6	Big and Small Ends

S 7	Slide Bars Bottom
S 8	Slide Bars Top
S 9	Main Bearings
S 10	Piston and Valve Rod Guides
S 11	Flywheel

As featured on the Front Cover of the Model Engineer No. 3787 Vol. 157 October, 1986. Which was also the start of a series on the construction of this model.

TANDEM COMPOUND MILL ENGINE



The Tandem Compound Mill Engine became quite common in the late Victorian times and was still being used in the mid - 20th Century.

This Model represents a typical Tandem Compound Mill Engine of this period and has been simplified especially for the model engineer.

We are offering the main castings separate to the machined cast base as some modellers would prefer to use a wooden block with B.M.S. bed plated and it keeps the price down. The cast machined base is for mounting on a wooden block.

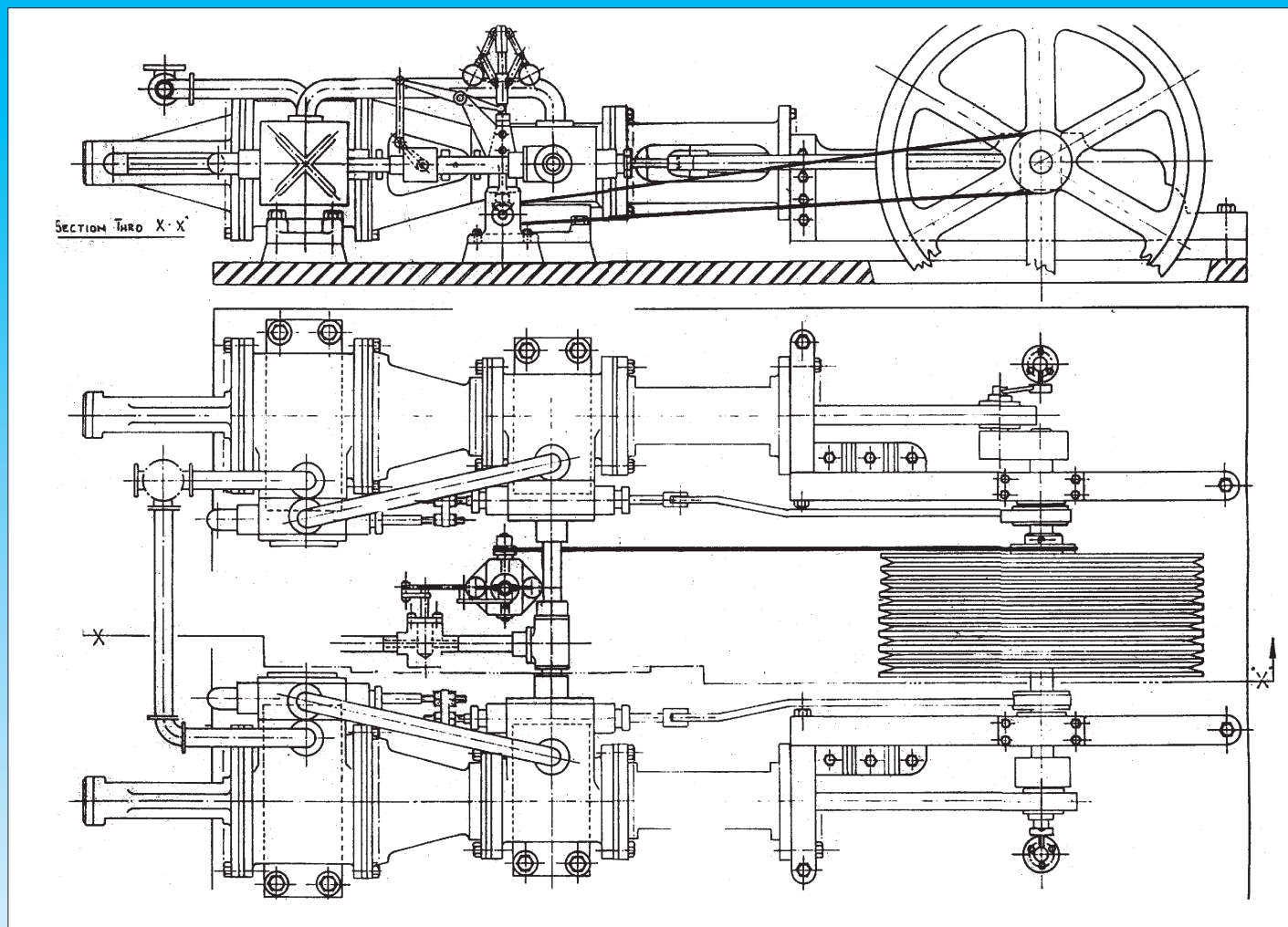
Cylinder H.P. 1" L.P. 1 5/8" Bore x 1 1/2" Stroke. Flywheel 6" Base 18 1/2" x 7"

TC 2	L.P. Cylinder
TC 3	H.P. Cylinder
TC 4	Spacer
TC 5	Trunk Crosshead Guide
TC 6	L.P. Cylinder Covers
TC 7	H.P. Cylinder Covers
TC 8	L.P. Cylinder Stands
TC 9	H.P. Cylinder Stands
TC 10	Cylinder Steam Chests
TC 11	Valve Rod Guides
TC 12	Main Bearings

TC 13	H.P. and L.P. Piston
TC 14	Slide Valve
TC 15	Steam Chest Covers
TC 16	Outer Bearing Stand
TC 17	Inner Bearing Stand
TC 18	Trunk Support Stand
TC 19	Eccentric Strap
TC 20	Governor Stand
TC 21	Flywheel
TC 22	Bed Plate

As featured on the front cover of Model Engineer No. 3879 Vol. 165 August 1990. Which was also the start of a series on the construction of this model.

DOUBLE TANDEM COMPOUND MILL ENGINE



The Tandem and Double Tandem Compound Mill Engine were also quite common in the late Victorian times and were also still being used up to the mid - 20th Century.

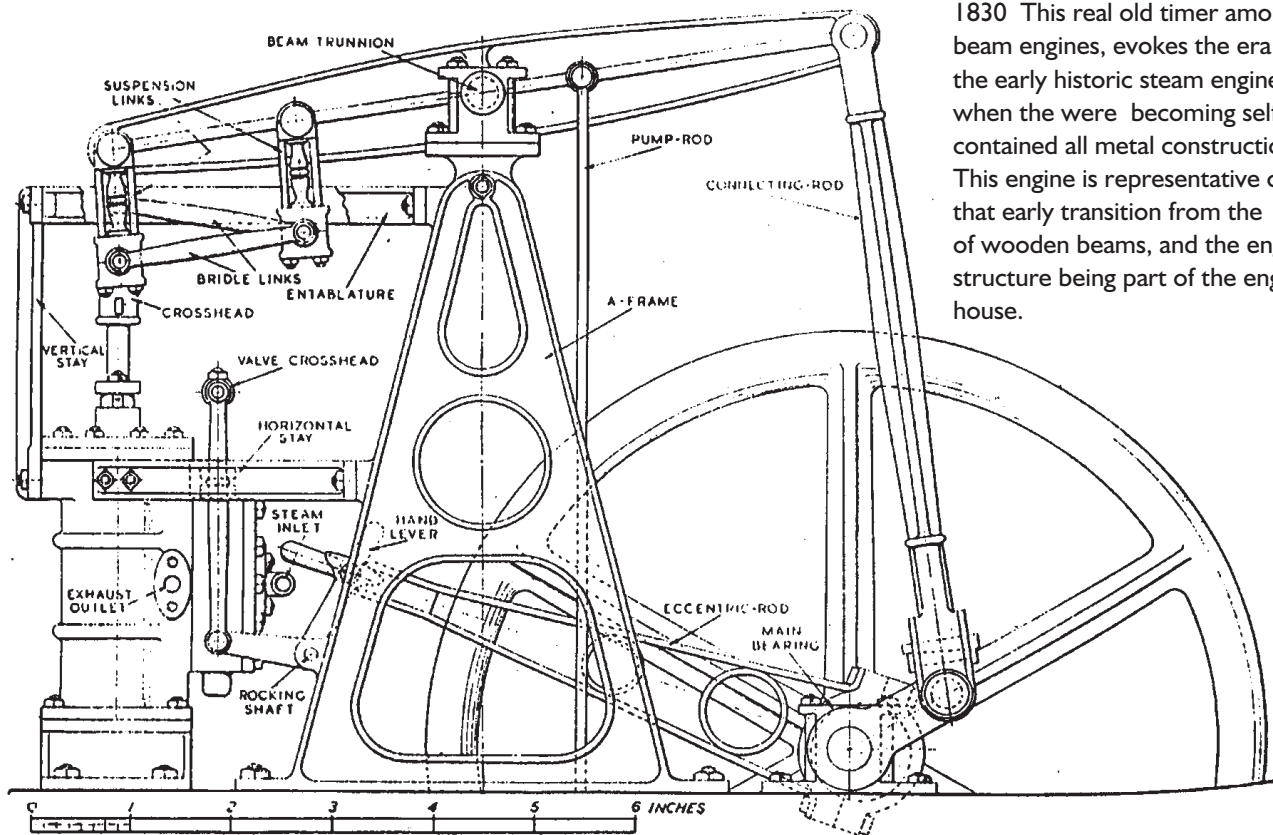
The Model represents a typical Double Tandem of this period, and it is based on our Tandem Compound with new drawings. It makes a good size model with lots of scope for further detail modelling.

Cylinders HP 1". LP 1 5/8". Bore x 1 1/2" Stroke. Base 18 1/2" x 14" Flywheel 6" dia.

TC 2	L.P. Cylinder	TC. 12	Main Bearings
TC 3	H.P. Cylinder	TC. 13	H.P. & L.P. Piston
TC 4	Spacer	TC. 14	Slide Valve
TC 5	Trunk Crosshead Guide	TC. 15	Steam Chest Covers
TC 6	L.P. Cylinder Covers	TC. 16	Outer Bearing Stand
TC 7	H.P. Cylinder Covers	TC. 18	Trunk Support Stand
TC 8	L.P. Cylinder Stands	TC. 20	Governor Stand
TC 9	H.P. Cylinder Stands	TD. 21	Flywheel
TC 10	Cylinder Steam Chests	TD. 22	Bed Plate
TC 11	Valve Rod Guides	TD. 23	Piston Rod Guides

Our Tandem Compound Mill Engine opposite, on which this Model is based was the subject of a constructional series in the Model Engineer which would be of help to newer modellers
Series commenced August, 1990 No. 3879 Vol.165

VULCAN BEAM ENGINE



The "Vulcan" Beam Engine cir. 1830 This real old timer amongst beam engines, evokes the era of the early historic steam engine. when the were becoming self-contained all metal constructions. This engine is representative of that early transition from the use of wooden beams, and the engine structure being part of the engine house.

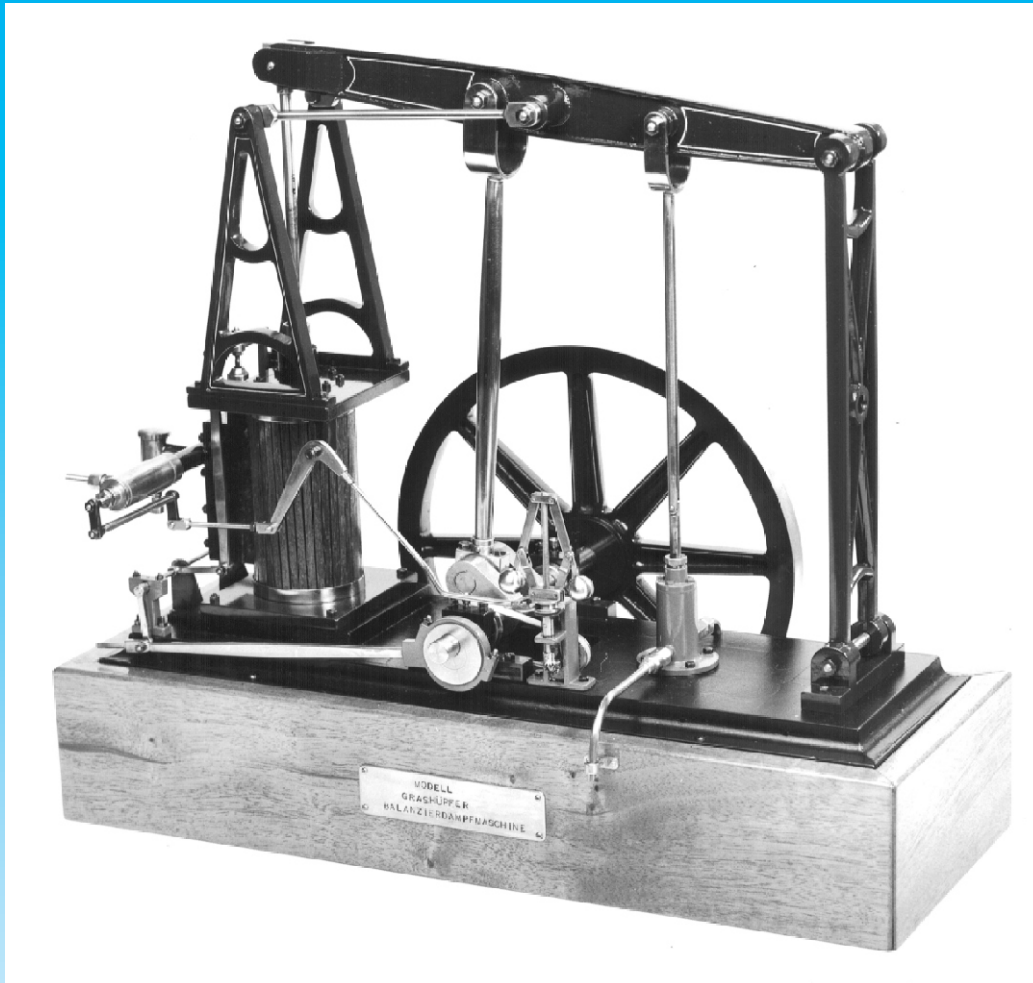
A straight forward engine to build yet producing an attractive and interesting model which can be up and ready for steaming quite quickly for the experienced. It is also covered by a constructional series in The Model Engineer for those who may need a little help. And the model is thus ideal for up and coming modellers.

Cylinder $\frac{7}{8}$ " Bore x $2\frac{1}{4}$ " Stroke. Base $10\frac{1}{4}$ " x $5\frac{1}{8}$ " Flywheel $8\frac{3}{8}$ " x dia.

V 1	Base
V 2	Beam
V 3	Trunnion Bearings
V 4	Main Bearings
V 5	Side Stays
V 6	Entablature Frames
V 7	Vertical Stay
V 8	Standards
V 9	Connecting Rod
V 10	Cylinder
V 11	Piston

V 12	Gland
V 13	Upper Cylinder Cover
V 14	Lower Cylinder Cover
V 15	Steam Chest
V 16	Steam Chest Cover
V 17	Cylinder Pedestal
V 18	Slide Valve
V 19	Eccentric Strap
V 20	Flywheel
V 21	Feed Pump Barrel
V 22	Feed Pump Gland

GRASSHOPPER BEAM ENGINE



The 'Grasshopper' Type Beam Engine has been based on one in a well known steam museum.

It is relatively easy to make and assemble, and makes a very attractive model which is quite fascinating to watch when working. We have found it will run well on very low pressure of about 15lbs sq.in.

The early steam engines have always held a fascination for model engineers from when the engines first became self contained, developed from the practices of using the the engine house structures as engine supports, and ceasing to use wooden beams in favour of all metal construction.

The beam engine was the first of them all, appearing in various forms, A-frame type, full Entablature with four or more vertical columns, Grasshopper, Centre Column etc., and it is not difficult to understand the appeal as the best of these where quite majestic in movement and appearance, the Grasshopper type being very popular with model engineers.

Cylinder 1 3/8" Bore x 2" Stroke.

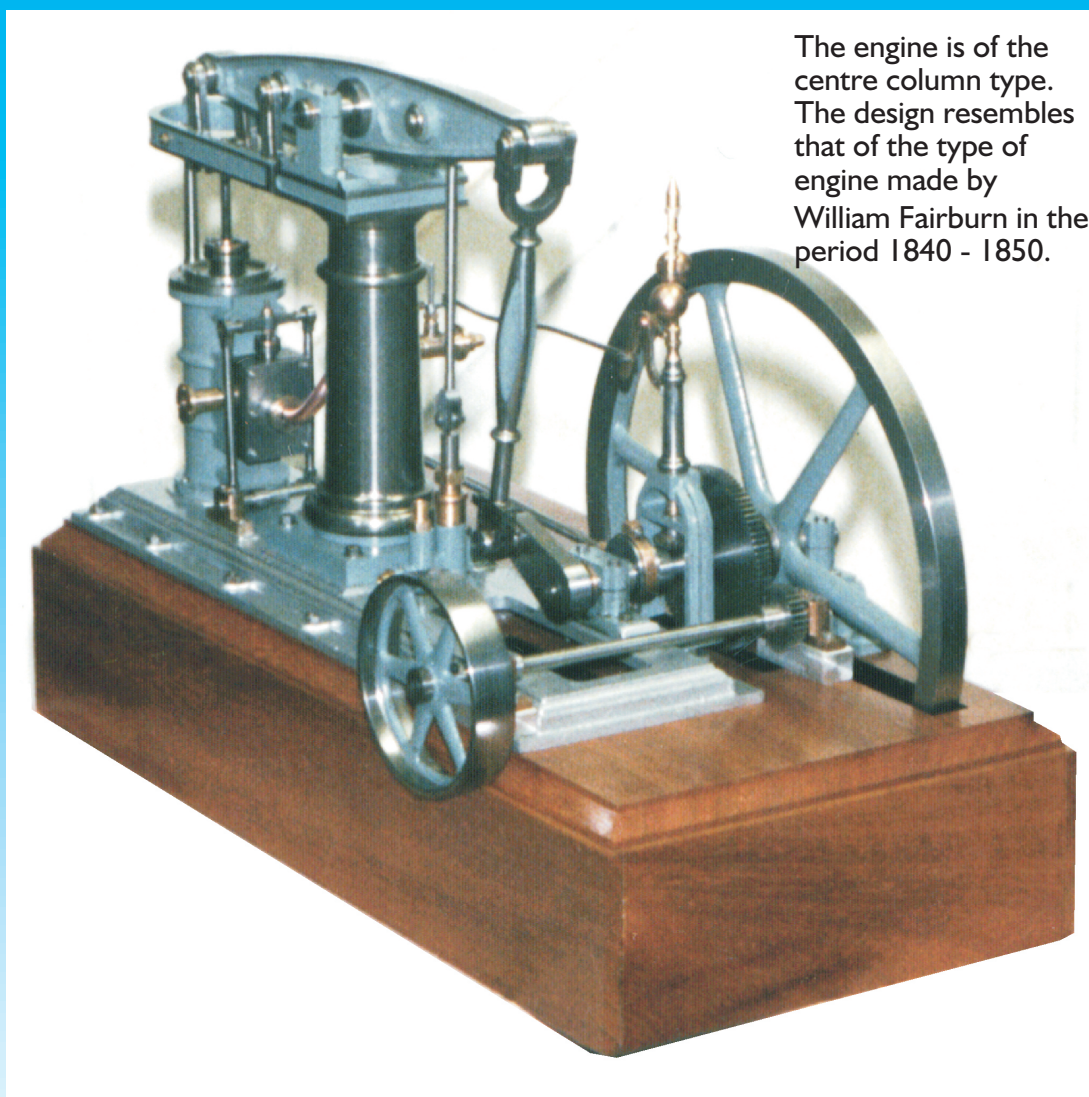
Base 18 1/4" x 6"

Flywheel 9 7/8"

B 1	Base
B 2	Cylinder
B 3	Steam Chest
B 4	Steam Chest Cover
B 5	Valve
B 6	Cylinder Top & Bottom Covers
B 7	'A' Frames
B 8	Beam
B 9	Rear Beam Support

B 10	Beam Support Base
B 11	Main Bearings
B 12	Big End
B 13	Governor Casting
B 14	Eccentric Strap
B 15	Piston
B 16	Flywheel
B 17	Small End

M.E. BEAM ENGINE



The engine is of the centre column type. The design resembles that of the type of engine made by William Fairburn in the period 1840 - 1850.

The very earliest practises of the use of the engine house building as part of the steam engine structure soon gave way to the development by the engineers of the day of self-contained engines, the beam engines being the first of these in all its variations. These various types have always been popular with model engines, as is this centre column type.

Cylinder 1 1/4" Bore x 1 1/4" Stroke

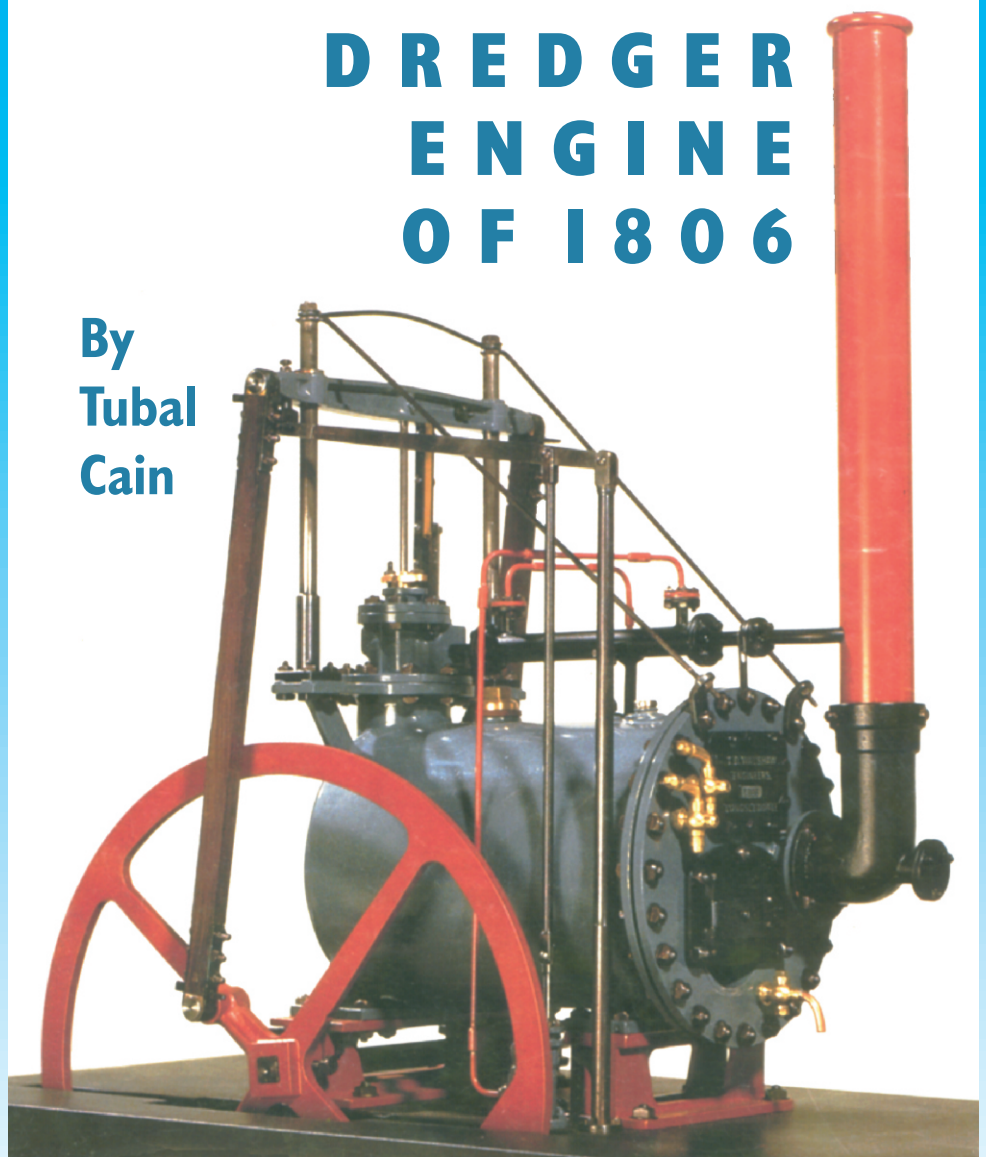
ME 1	Bed Plate	ME 14	Piston
ME 2	Pillar	ME 15	Steam Chest
ME 3	Entablature Beam	ME 16	Steam Chest Cover
ME 4	Beam	ME 17	Valve
ME 5	Beam Bearing	ME 18	Eccentric Strap
ME 6	Main Bearing	ME 19	Column Bkt.
ME 7	Valve Bearings	ME 20	Slide
ME 8	Pedestal Bkt.	ME 21	Column
ME 9	Flywheel	ME 22	Steam Cock Throttle Valve
ME 10	Connection Rod	ME 23	Feed Pump
ME 11	Cylinder	ME 24	Pulley Bearing
ME 12	Cylinder Cover	ME 25	Driving Pulley
ME 13	Crank	ME 26	Spur Gear

TREVITHICK'S

DREDGER ENGINE OF 1806

By
Tubal
Cain

Richard Trevithick
"The father of the
steam locomotive"
and responsible for
the working of steam
engines at "high"
pressure, the full
story is conveyed by
T.D. Walshaw in the
Model Engineer Vol.
159 No. 3809. It is
most interesting and
is well worth reading.



A one-sixteenth scale model of Richard Trevithick's High Pressure Dredger Engine of 1806

This fascinating and historical important engine is interesting to build and with its self-contained steam plant the finished engine is a pleasure to own and great fun to steam, for those who may need a little help the engine is covered by a construction series in the Model Engineer

Flywheel 6.3/4" dia.

Height from top of base approx. 11"

Overall height approx. 14.1/2"

Overall width approx. 5"

RT 1	Crankweb	RT 7	Crosshead
RT 2	Manhole cover	RT 8	Piston
RT 3	Furnace front	RT 9	Cylinder cover
RT 4	Plinth	RT 10	Cylinder and Boiler dish end
RT 5	Drive cogwheel	RT 11	Chimney base
RT 6	Flywheel	RT 12	Chimney

As featured for construction by Tubal Cain in the Model Engineer Vols. 159-160

G E O R G I N A

by
Tubal
Cain



Georgina Overcrank Engine, designed by Tubal Cain which was inspired by examples drawn from the "Age of Elegance" and its construction is in a book by Tubal Cain, in which strong emphasis is placed on the use of simple methods, and no elaborate workshop equipment is needed, for apart from the flywheel the smallest lathe will suffice.

Georgina is representative of a type of engine widely used for small powers, and occasionally large ones, including colliery winding engines.

Though simple in design it is very interesting to build and when finished its slender proportions make it a delight to see when running.

Flywheel 6" dia. Base 6 1/2" x 5 1/2"

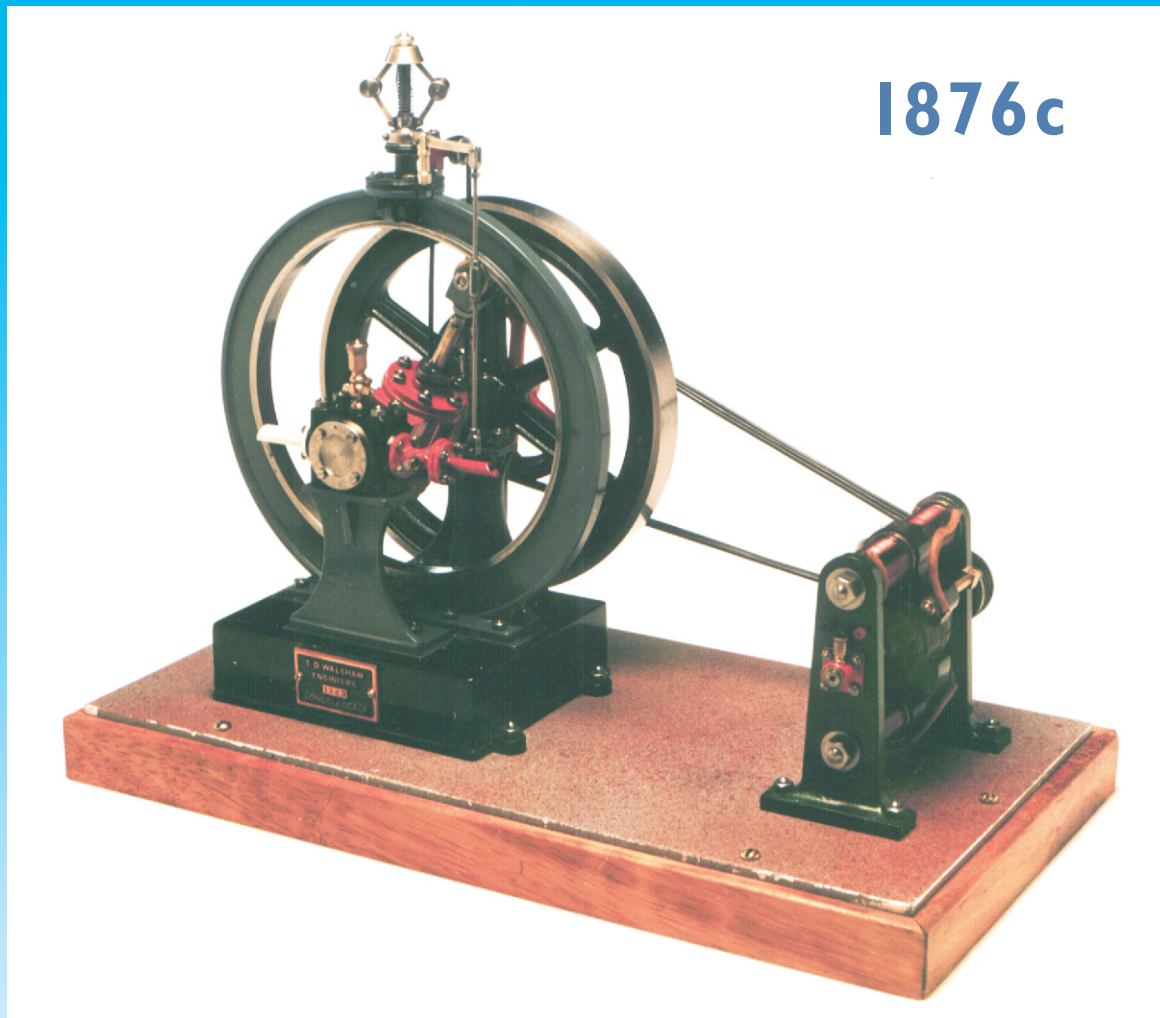
G 1	Base
G 2	Eccentric Strap
G 3	Arch-Heads
G 4	Cylinder
G 5	Cylinder Bottom Cover
G 6	Cylinder Top Cover
G 7	Steam Chest
G 8	Cover Gland
G 9	Valve Rod Gland

G 10	Valve Chest Cover
G 11	Piston
G 12	Valve
G 13	Connection Rod
G 14	Feed Pump
G 15	Gland
G 16	Eccentric Strap
G 17	Flywheel

GB Book by Tubal Cain - "Building the Overcrank Engine Georgina"

A constructional series on this model by Tubal Cain started in Model Engineer No. 3641 Vol. 146, September 1980 and it is on which the book is based.

W. A. COOMBER'S ROTARY STEAM ENGINE



The Rotary Engine on which the model is based was invented by Mr. W. A. Coomber, engineer of Scotland Street, Ironworks, Birmingham, and described in "The Engineer" on January 21st 1876
The Model is designed by Tubal Cain including a contemporary gramme ring dynamo for it to drive, both are the subject of a detailed constructional series in "Engineering in Miniature"

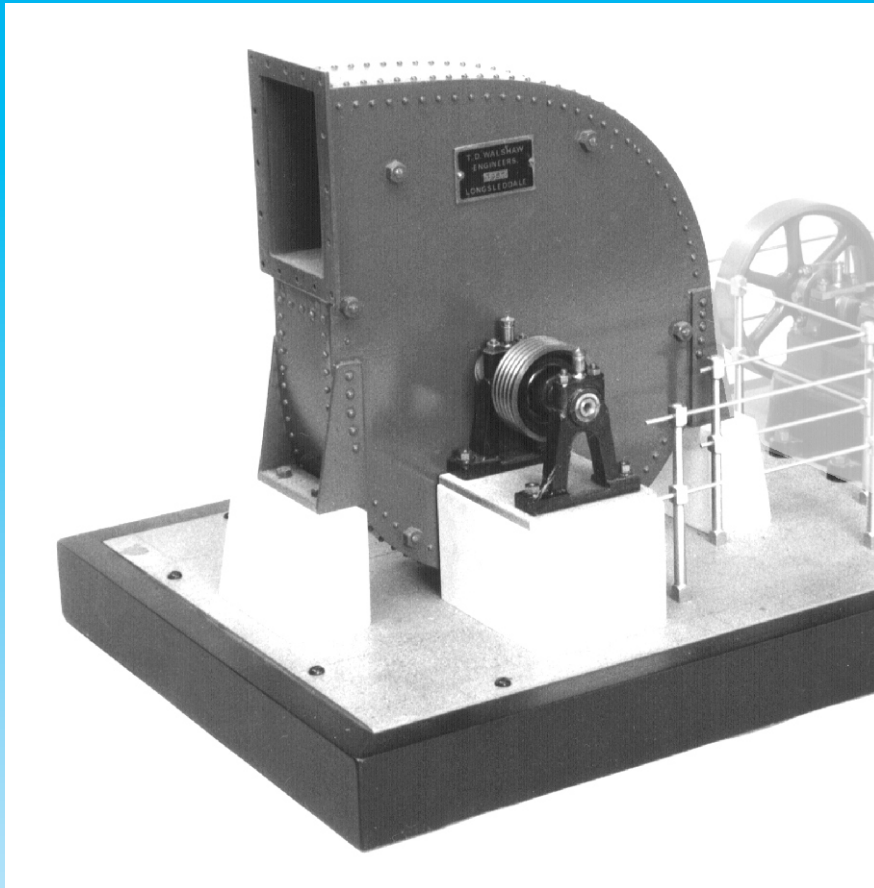
An unusual and interesting engine to build and fascinating to run at tickover or at high speed

Flywheel 6" dia. 6" Wide 8" Long 9" High

CE 1	Guide Rings
CE 2	Under Base
CE 3	Bearing Standard
CE 4	Timing Bush
CE 5	Timing Bush Housing
CE 6	Bearing Housing
CE 7	Bush
CE 8	Flywheel

CE 9	Pulley
CE 10	Cylinder
CE 11	Cylinder Cover & Gland
CE 12	Pole Piece
CE 13	Standard
CE 14	Ball Race
CE 15	Copper Wire for Dynamo

A E O L U S



Designed by Tubal Cain as something for the builders of stationary engines, to have their engines drive.

Original design was by Mr. F. Bumstead around 1887, it was a four foot fan intended for marine forced draft and similar duties, an excellent engine to run it would be Tubal Cain's "Coomber" engine of 1876 elsewhere in this catalogue.

Flywheel 2" dia. 6" Wide 9" Long 9" High

AE 1	Bearing Pedestal	2 gm
AE 2	Drive Pulley	1 ci
AE 3	Cover Plates	1 Tin Plate
AE 4	Rear Driving Plate	1 Brass
AE 5	Front Shroud	1 Brass
AE 6	Front Plate	1 Tern Plate

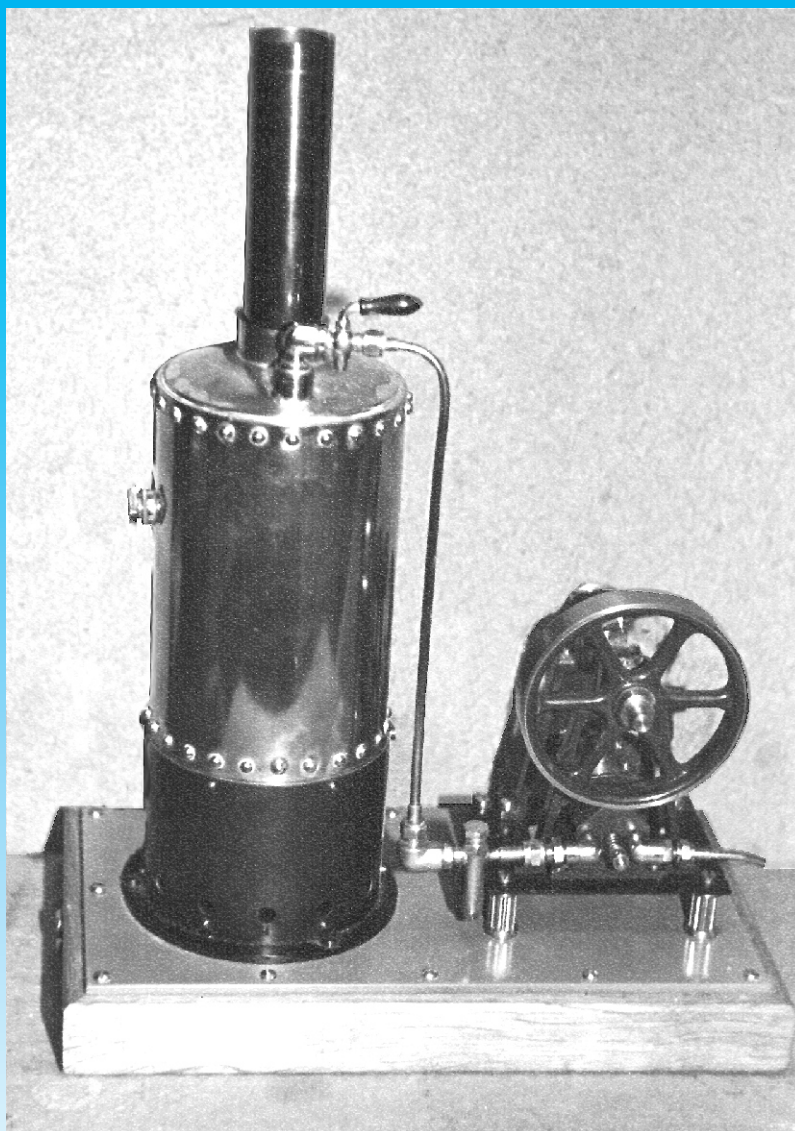
AE 7	Back Plate	1 Tern Plate
AE 8	Inlet Duct	1 Brass
AE 9	Blades	12 Tin Plate
AE 10	Support Brackets	2 Brass
AE 11	Rivets	360 RH $\frac{3}{64}$ " x $\frac{1}{4}$ "
Note AE3 to AE10 plate is not cut to profile		

As featured on the front cover of Model Engineer No. 3837 Vol. 161. Dec. 1988.
Which was the start of a constructional series by Tubal Cain.

'HENRY' A Powerful Oscillating Steam Plant

The little engine was inspired by the products of Bing, Carrette and other makers of the early 1900s. This one comes from the same period, but from a quite different source.

Mr. Henry Muncaster was an engineer of some note, chiefly in the field of heavy engineering, but was also an enthusiastic model engineer; a contemporary of both Stuart Turner and Henry Greenly. He wrote for 'Work' and 'English Mechanics' on both model and full size engineering subjects, and was soon recruited into the service of "The Model Engineer". His models covered a very wide range, from simple oscillators up to substantial engines large enough to drive a lathe.



This pretty little engine is ideal for even the smallest lathe with the added attraction of its own steam plant, it can be up and running quite quickly giving fun for all the family.

Cylinder $\frac{5}{8}$ " Bore x 1" Stroke Engine Base $2\frac{3}{4}$ " x $2\frac{1}{4}$ " Flywheel 3" dia

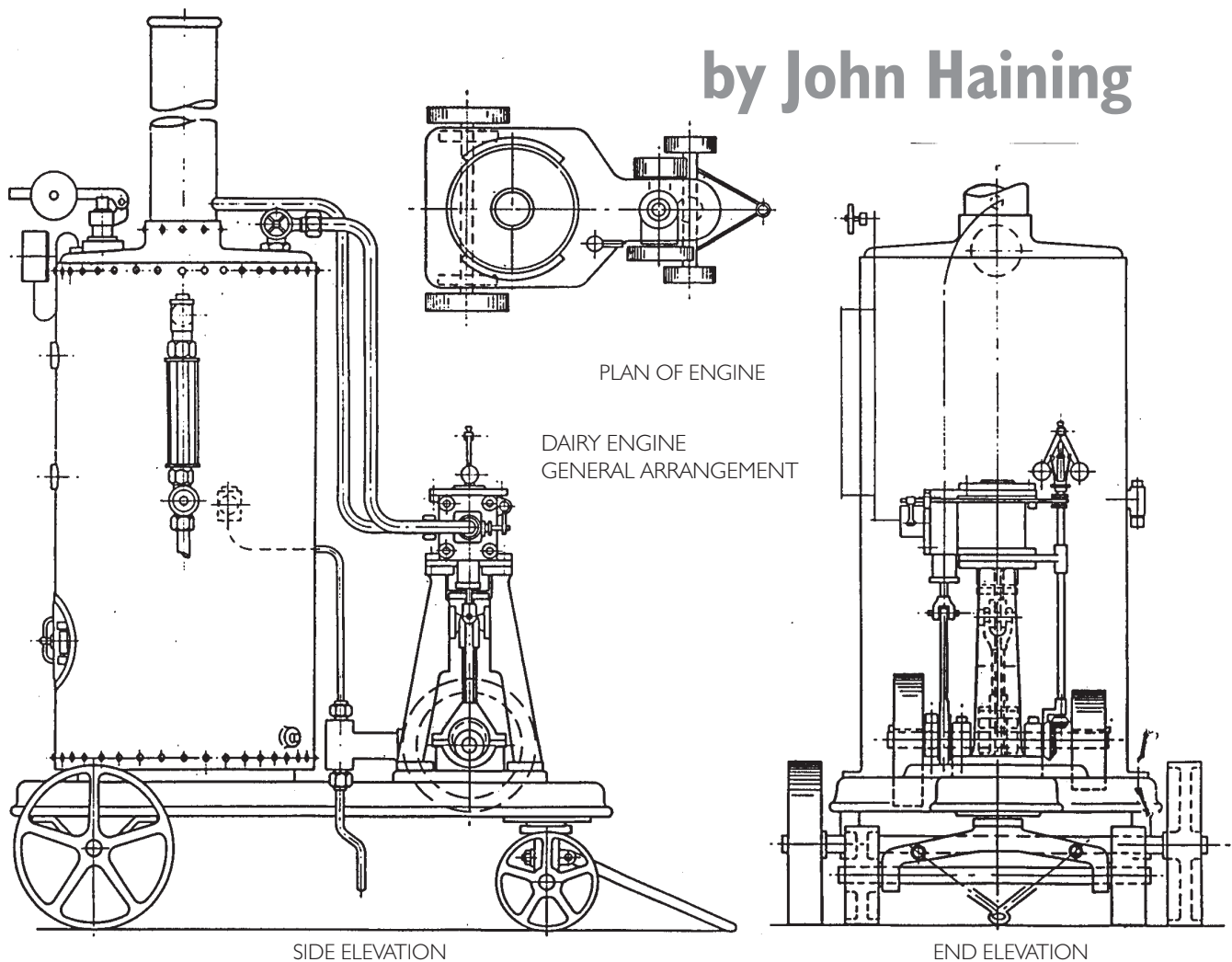
HB 1	Cylinder
HB 2	Top Cylinder Cover
HB 3	Bottom Cylinder Cover
HB 4	Piston
HB 5	Main Bearings
HB 6	Standards

HB 7	Flywheel
HB 8	Port Block
HB 9	Elbows
HB 10	Boiler Firebox Base
HB 11	Burner Support
HB 12	Copper Boiler Kit

The book written by Tom Walshaw from which the above abstracts were taken, is available.

RANSOMES, SIMS & JEFFERIES DAIRY ENGINE

by John Haining



A fine example of a small Ransomes, Sims & Jefferies "Dairy Engine" by John Haining makes an interesting alternative to a stationary engine with its own steam plant it should be up and running quite quickly, do remember at the very least to chock the wheels! as for a small engine it is quite powerful.

For those who need a little help the engine is covered by a construction series in Model Engineer and in which John Haining relates the history of the dairy Engine.

Overall Length 9 1/4" Overall Width 5" Overall Height 12 5/8"

Copper Boiler 7 1/2" long x 4" dia. Cylinder 5/8" Bore x 5/8" Stroke

As featured for construction by John Haining in the Model Engineer 1st. November 1985

TRACTION ENGINE SPECIALISTS

For the following range of Brunell Models Traction Engines we offer:-
Drawings, Brasses, Laser Cut Horn Plates and Spokes.

Steel or Copper Boiler Kits as appropriate.

Finished tested and Certified Copper and Steel boiler as appropriate.

Steel Boilers are to Insurance approved design, built under their control, tested and certified by the Insurance Company..

Flame cut Blanks, and finished Cranks and Axles.

Finished Gears, - Castings - Machining - Gear Cutting - Keyways.

Steering Worm and Wormwheel.

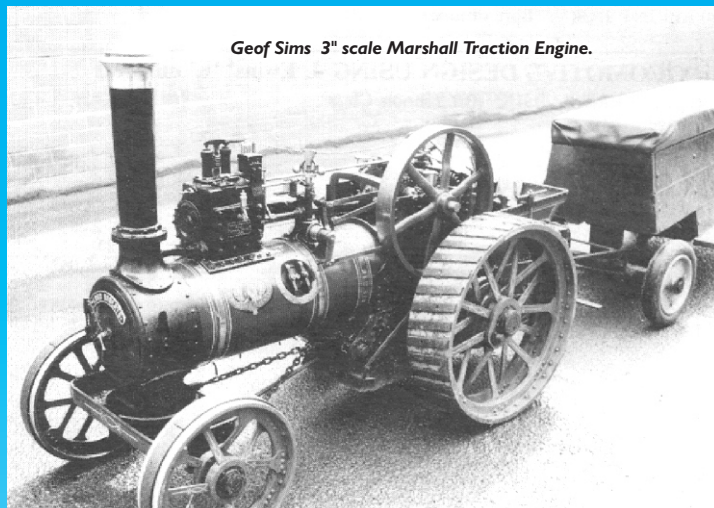
Machining of any item out side the capacity of your work shop.

The 3" Marshall is proving to be one of the most popular of Traction Engines being of excellent design, and modelled true to scale on an actual engine, with power to spare.

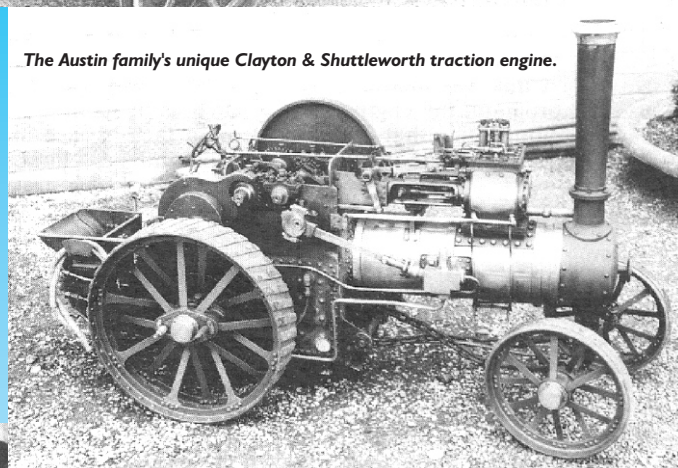
Below is an item from Model Engineering press about the success of our

EXTRACT FROM MODEL ENGINEERING PRESS

To return to the traction engines, apart from one of the full size ones there wasn't a single Burrell to be seen, which is quite unusual. Two very fine Marshall single cylinder engines made to Chris Lord's design were present. Both are very well detailed and their builders told me that they were a pleasure to construct as the drawings, which are now marketed by Brunell Models, are absolutely free of errors. Ross Thompson of the Gloucester based Model Steam Road Vehicle Society spent two thousand hours spread over three years in constructing his model which is named 'Margaret'. In the five years since completion this engine has been regularly rallied and done several road runs of up to five miles distance. Geof Sims of Ashby Magna in Leicestershire has named his engine 'Lord Roberts' and again it has been regularly rallied since completion in 1985. At this rally Geof demonstrated the power of his engine by towing a Volvo 240GL motor car which weighs well over one ton.



Geof Sims 3" scale Marshall Traction Engine.



The Austin family's unique Clayton & Shuttleworth traction engine.



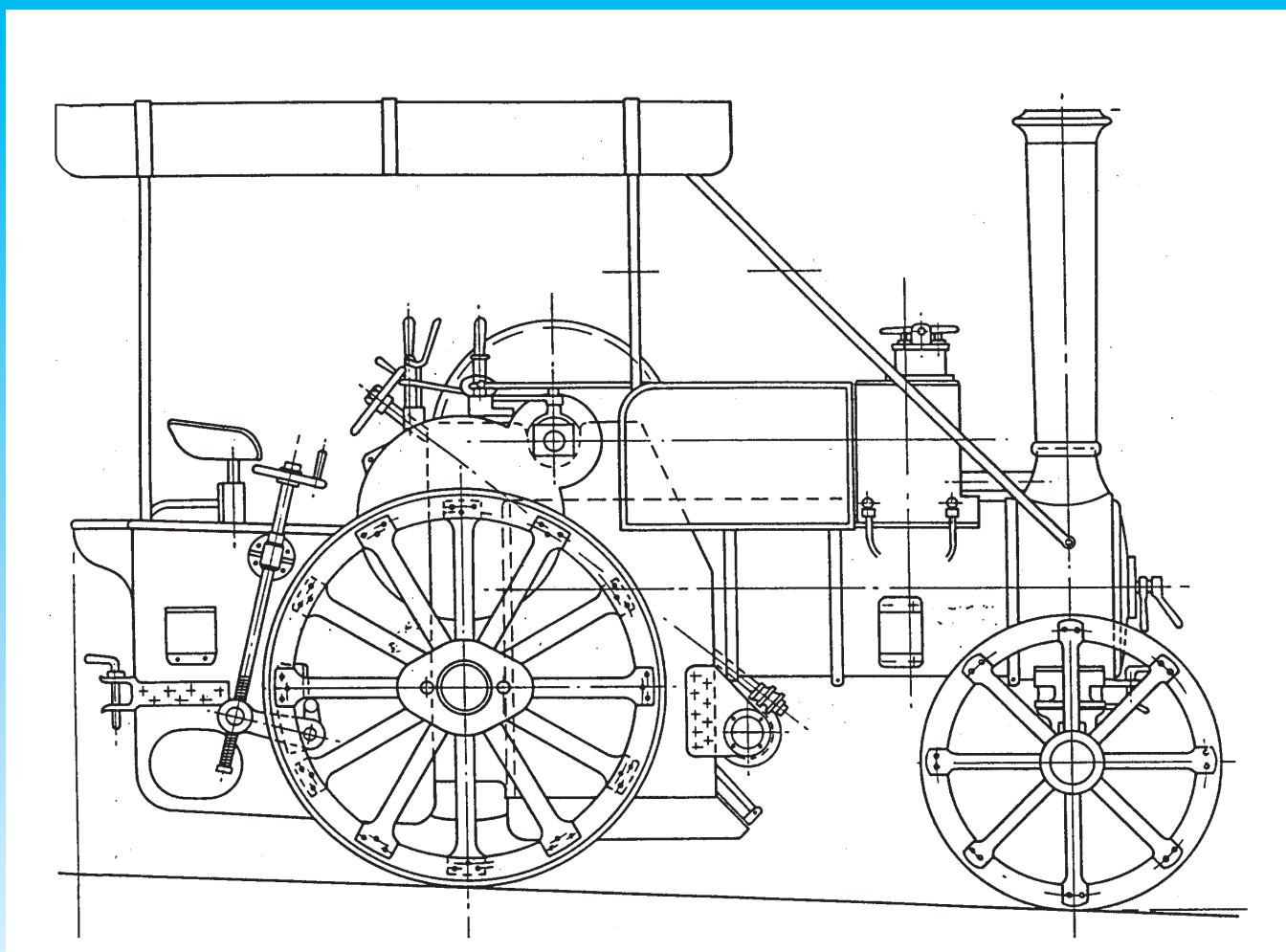
Stephen Harback cleans the tubes of his 1 1/2" scale Allchin.

Should you ever consider building a Traction Engine then consider the 3" Marshall.

Our Range of Traction Engines

1 1/2"	Allchin 'Royal Chester'	General Purpose
2"	Ruston, Proctor	General Purpose
2"	Durham & North Yorkshire	General Purpose
2"	Fowler 16nhp	Ploughing Engine
2"	Fowler Z7	Ploughing Engine
2"	Fowler Superba	Ploughing Engine
3"	Allchin 'Royal Chester'	General Purpose
3"	Wallis & Stevens	General Purpose Expansion Engine
3"	Marshall 7nhp 'Pride of The Road'	General Purpose (see above)
4"	Rushton, Proctor	General Purpose
4"	Durham & North Yorkshire	General Purpose

RUSTON, PROCTOR CLASS SD LIGHT STEAM TRACTOR by John Haining



We have decided to include this very good looking engine in our range of models, because of the very fine drawings from which to work, and its size in 2" scale will be well in the scope of most model engineers.

And for those who wish for the larger engine which is easy to build we have a 4" version.

For those attempting their first Traction Engine this one is ideal, with its simple and straight forward construction which is covered by a constructional series in the Model Engineer.

Available in both 2" and 4" scale are a full set of castings etc.

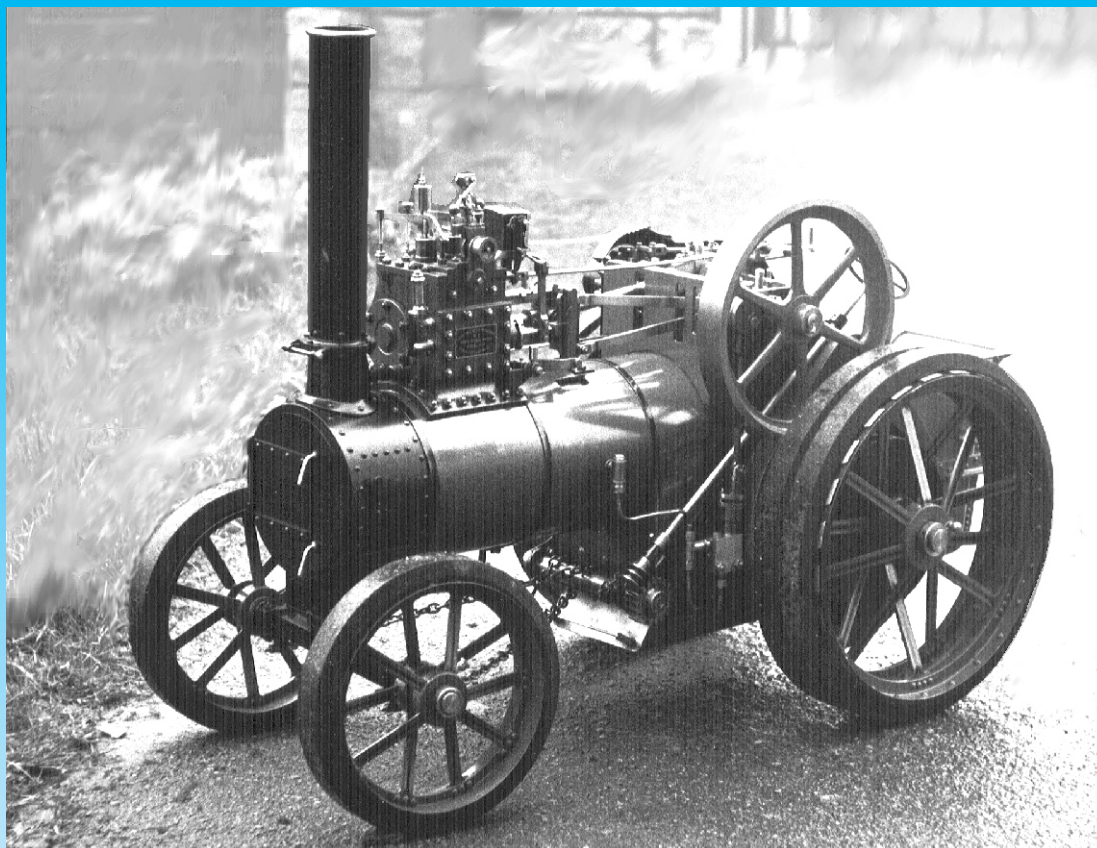
DIMENSIONS & SPECIFICATIONS 2" (4")

Overall Length	23 1/2" (47")	Flywheel	5" dia. (10")
Overall Width	9 1/8" (18 1/4")	Front Wheels	6 1/8" dia. (12 1/2")
Overall Height	16 1/2" (33")	Hind Wheels	8 3/8" dia. (16 1/2")
Copper Boiler	2" 3 1/2" dia x 10 3/4" long	Working pressure	85 psi
Steel Boiler (4")	7" dia x 21 1/2" long	Working pressure	120 psi
Cylinder	7/8" Bore x 1 1/2" Stroke (1 3/4" x 3")		
Three-shaft, Two speeds		Stephenson Link Motion	

As featured for construction by John Haining in The Model Engineer from
3rd. April, 1987 to 1st. April, 1988.

THE DURHAM & NORTH YORKSHIRE

by John Haining



This very popular single cylinder general purpose Traction Engine is of straight forward design and ideally suited for the first-timer in 2" scale, and for those who want to go to 4" scale, absolutely first class. Both models have the very elegant Victorian slater spring safety valves sitting majestically on top of the cylinder casting as the finishing touch.

Available for both 2" and 4" are a full set of 80 castings, as with all our engines we will be pleased to machine any part out-side the capacity of your work shop.

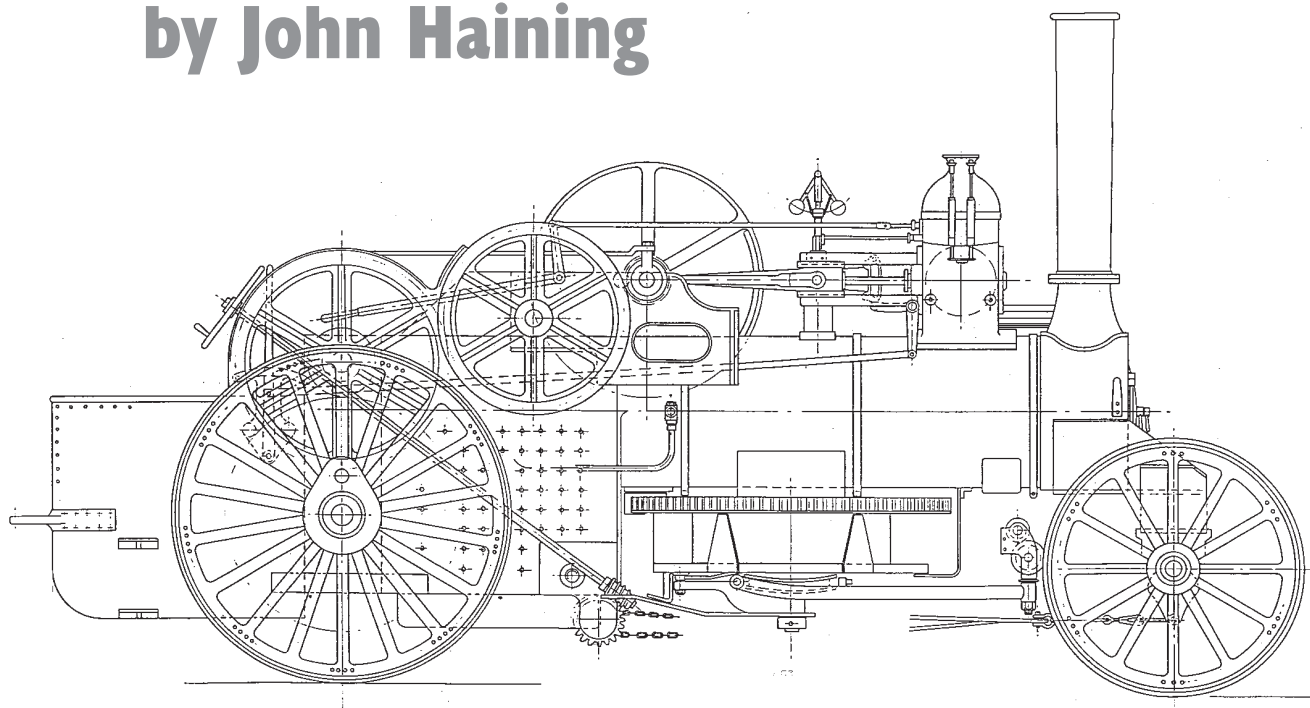
DIMENSIONS & SPECIFICATIONS 2" and (4")

Overall Length	30 3/4" (61 1/2")	Flywheel	8" (16")
Overall Width	14" (28")	Front Wheels	7" (14")
Overall Height	22" (44")	Hind Wheels	11" (22")
Copper Boiler	2" 5"dia. x 16 1/4" long.	Working Pressure	85 psi
Steel Boiler	(4") 10" dia. x 32 1/2"	Working pressure	120 psi
Cylinder	1 1/4" Bore x 2" Stroke (2 1/2" x 4")	Two speed, Three-shaft.	

As featured for construction by John Haining in The Model Engineer.
6th. October, 1978 to 7th. December, 1979.

THE 16H.P. SINGLE CYLINDER FOWLER DOUBLE SPEED PLOUGHING ENGINE IN 2" SCALE

by John Haining



One of the great Fowler ploughing engines. Featuring Fowler No. 5872 built at Leeds 1889c.
Single cylinder engine fitted with church valve, double speed ploughing gear and governors.

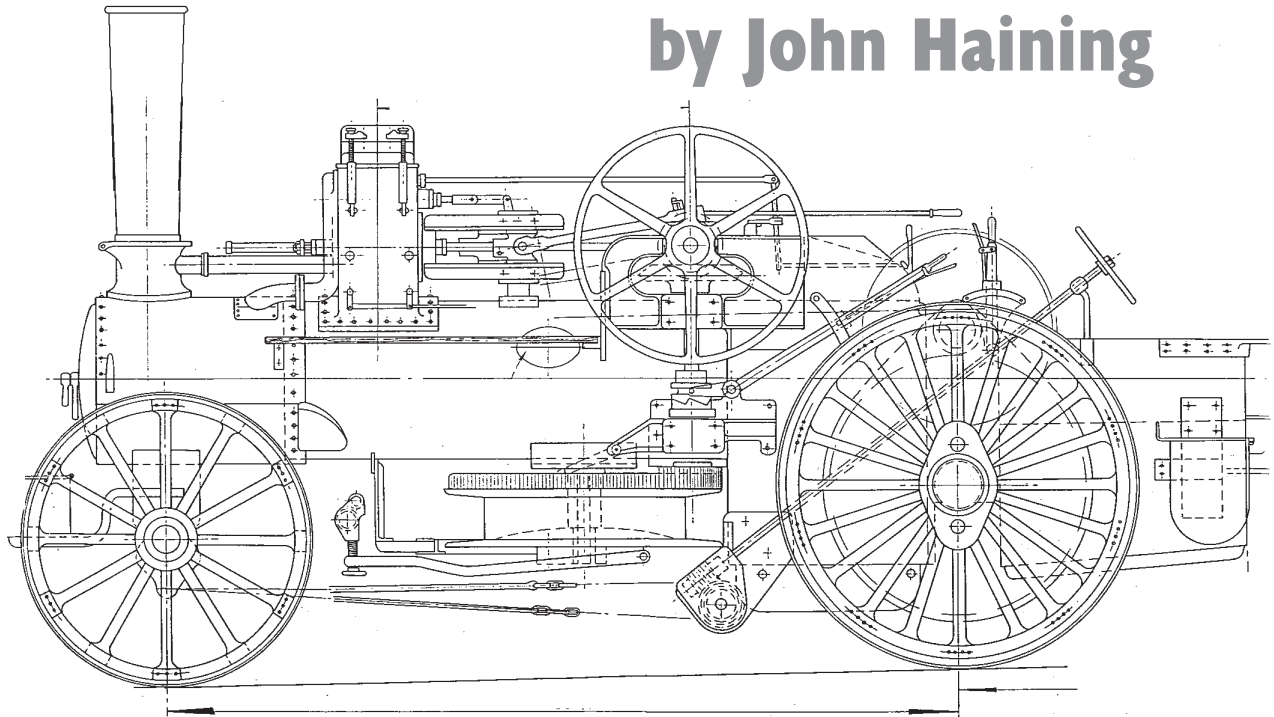
Ploughing engines have a charm all of their own, for builders it makes an interesting challenge from a Traction Engine, with additional interest, and this engine has the most beautifully proportioned lines of any ploughing engine, of which there is a fine example on the back cover.

DIMENSIONS & SPECIFICATIONS 2"

Overall Length	47 ³ / ₄ "	Flywheel	9" dia.
Overall Width	18"	Front Wheels steel	10" dia.
Overall Height	25 ⁵ / ₈ "	Hind Wheels steel	12" dia.
Steel or Copper boiler	25 ¹ / ₂ " x 5 ¹ / ₂ "	Working pressure	85 psi
Cylinder	1 ³ / ₄ " bore x 2" stroke		

FOWLER CLASS Z7S and SUPERBA PLOUGHING ENGINE

by John Haining



The Fowler Z7S and Superba compound ploughing engines were very large and quite imposing in full size with an appeal all of their own, retaining that presence in John Haining's 2" scale version they are truly impressive from all views, a very good sized and robust model to build, with the added advantage of the single speed ploughing gear, though for those completely mad! you may use the double speed ploughing gear arrangement from the previous ploughing engine.

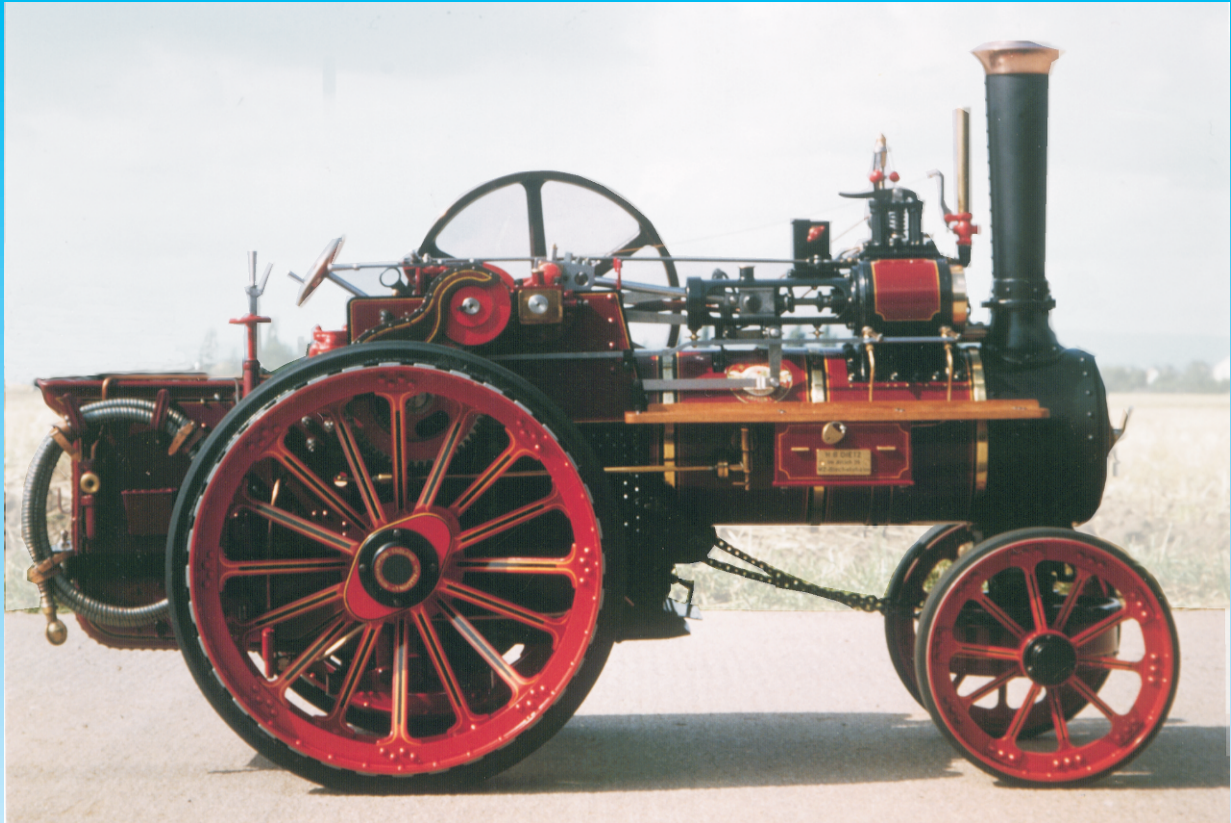
"For every country, for every soil, for every crop"

Fowler Cultivation Machinery the world over, Hawaii, Mexico, California, Mozambique, Tasmania',Australia, Cuba, Germany, France, Italy the list goes on and on. In Italy in 1927 the Mussolini government launched an ambitious scheme to drain for cultivation a large expanse of scrub and marshland' the Pontine Marshes outside Rome, which had defied cultivation since the time of the Romans, for which a design was produced of a big compound ploughing engine 'Superba' and so goes the introduction to the construction by John Haining, and is well worth following up.

DIMENSIONS and SPECIFICATIONS 2"

Overall Length	50"	Flywheel	9" dia.
Overall Width	18 1/4"	Front Wheels steel	10 3/4" dia.
Overall Height	27 3/4"	Hind Wheels steel	13 3/4" dia.
Cylinder LP	2 1/4" Bore x 2 1/4" stroke	Finished crank	available
Cylinder HP	1 5/8" Bore x 2 1/4" stroke	Working pressure	120p.s.i.
Steel Boiler	25 1/2" x 6" dia.		

THE SINGLE CYLINDER ALLCHIN M.E. TRACTION ENGINE ROYAL CHESTER IN 1 1/2" and 3" SCALE



1 1/2" and (3") Scale Allchin 7nph Single Cylinder General Purpose Traction Engine Royal Chester

The ever popular Allchin Royal Chester in 1 1/2" scale suitable for most small work shops.

And the Allchin (3") scale makes for an impressive model.

SPECIFICATIONS & DIMENSIONS for 1 1/2" & (3")

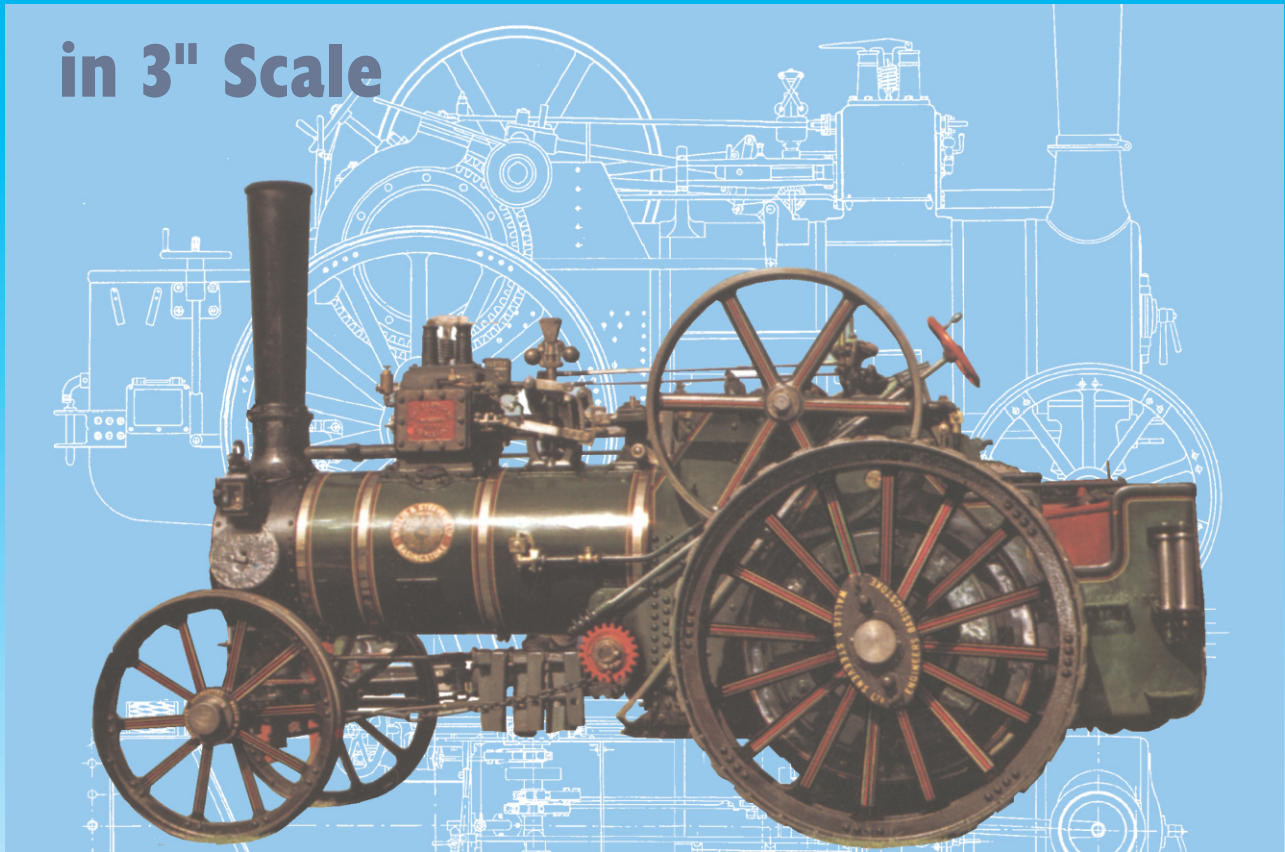
Available soon in 2" scale version

Overall Length	25" (50")	Flywheel	6 3/4" dia (13 1/2")
Overall Width	11 3/4" (23 1/2")	Front Wheels	5 1/2" dia (11")
Overall Height	16" (32")	Hind Wheels	9" (18")
Cylinder	1 1/4" Bore x 1 1/2" Stroke (2 1/2" x 3")		
Copper Boiler	3 3/4" dia x 12 3/4" (Steel 7 1/2" x 25 1/2")		
Working pressure	100 psi		

As featured for construction by W.J. Hughes in The Model Engineer. Vols. 138 - 142

THE WALLIS AND STEVENS EXPANSION ENGINE

in 3" Scale



The 3" Scale Wallis and Stephen's 7 nph Single Cylinder General Purpose Traction Engine with the 'Wallis' Expansion Gear is an interesting option in building a Traction Engine.

The engine is well proportioned with extremely nice lines.

The drawings show all the detail, as measured up from the full size engine No. 7456 - 1890c

The model is a true replica of an actual engine, the model being commissioned by The Science Museum in the 1920's unfortunately S. Francis the engineer commissioned did not complete the model, and not much is known of it until it surfaced in Newbury at an auction in the mid 1980's being three-quarters complete with, fortunately, drawings and foundry patterns.

We have completed the model and are pleased to offer the casting and drawings to modellers who want a powerful engine for the rally field, or a true to scale model that is different.

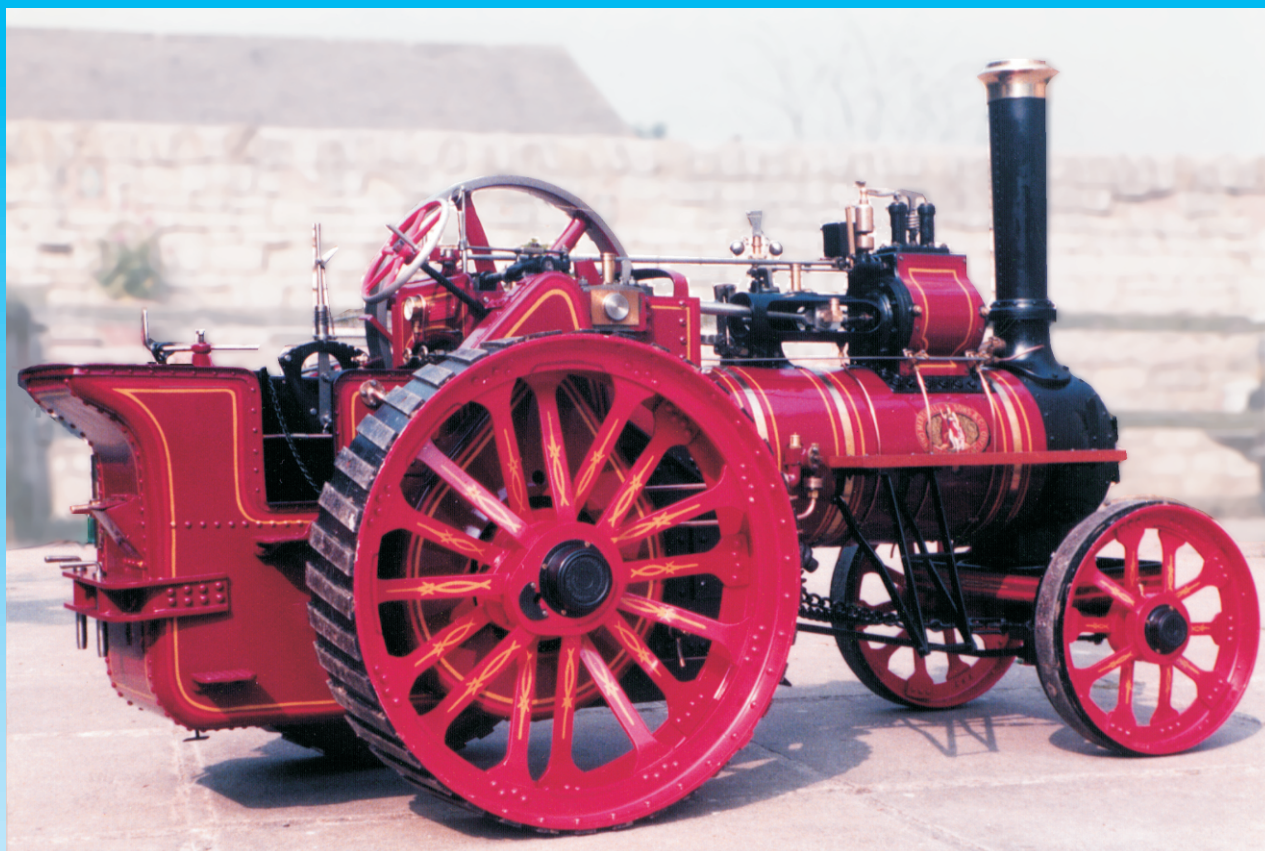
DIMENSIONS & SPECIFICATIONS

Overall Length	50"	Flywheel	12 ³ / ₈ "
Overall Width	20 ¹ / ₄ "	Front Wheels steel	11"
Overall Height	31 ⁵ / ₈ "	Hind Wheels steel	16 ¹ / ₂ "
Steel Boiler	7" dia.	Working pressure	120psi
Cylinder	2 ¹ / ₈ " Bore x 2 ¹ / ₂ " Stroke		

There is an explanation of the 'Wallis' Expansion Gear by Wallis & Steevens supplied with the drawings.

MARSHALL 7 NHP TRACTION ENGINE

'PRIDE OF THE ROAD'



3" Scale Marshall 7nhp Single Cylinder General Purpose Traction Engine.
1910 'PRIDE OF THE ROAD' by Christopher R. Lord.

The design has been produced in response to a number of requests from Model Engineers who wish to build a relatively straight forward model, which is a true replica of an actual engine, at the same time powerful and robust enough to use on the rally field.

With this in mind the Marshall 7nhp Traction Engine was chosen as a prototype which fulfilled these criteria. The drawing shows all the details as measured up from the full size Marshall No. 54587/10

DIMENSIONS & SPECIFICATIONS

Overall Length	51"	Flywheel	12 ³ / ₄ " dia.
Overall Width	21 ³ / ₈ "	Front Wheels steel	11 ¹ / ₂ "
Overall Height	31 ⁷ / ₈ "	Hind Wheels steel	18"
Steel Boiler	7" dia. x 26 ¹ / ₄ " long	Working pressure	100 - 120 psi
Four shaft transmission, two speeds		Stephenson's Link Motion	
Fully working governor, water lifter etc.			
Weight about 4 cwt. In working order.			

As featured on the front cover of The Model Engineer. November 1982.

"LIVERPOOL"



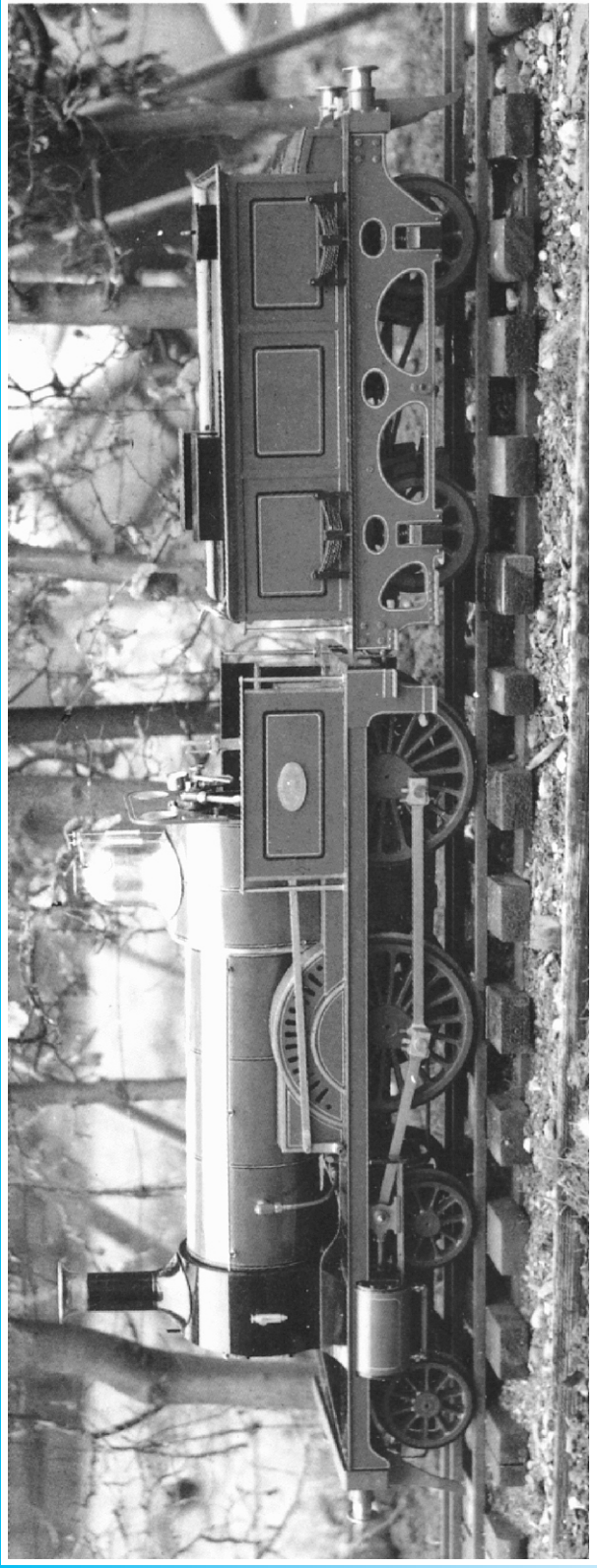
A 5" gauge model based on the 0-4-0 Manning Wardle & Co Ltd. Standard gauge class H contractors saddle tank locomotive.



This is one of the smallest 5" gauge locomotives available, having driving wheel dia. $3\frac{3}{16}$ ". For anyone who appreciates small Contractors Saddle Tanks with tall chimneys - it is a must

Cylinder 1" Bore x $1\frac{1}{2}$ " Stroke.

"COWAN GOODS"



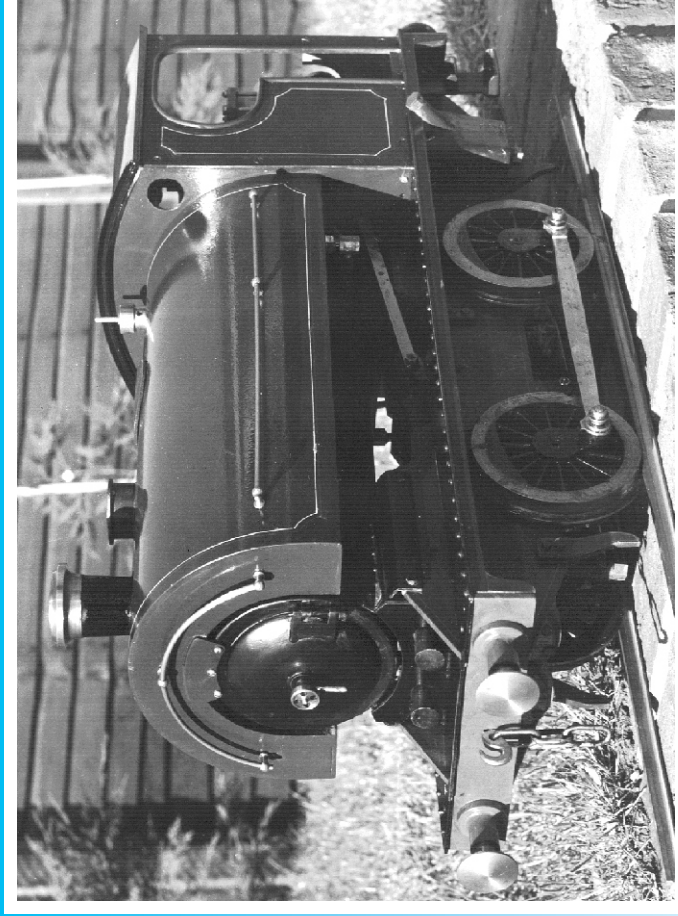
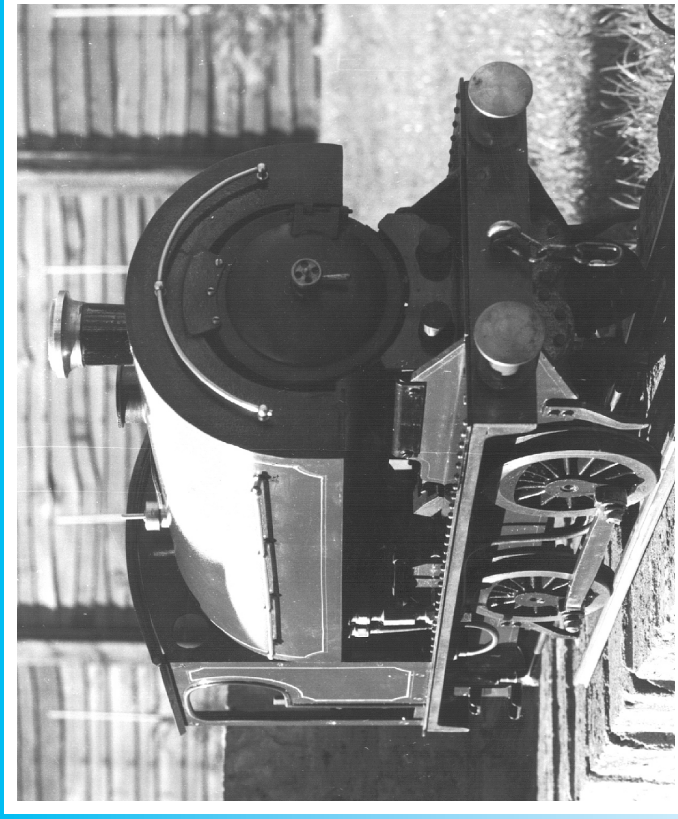
A 5" gauge model of the William Cowan goods engine of 1866, based on the original built by Neilson & Co., for the Great North of Scotland Railway.

The engine is in its original form without brakes or cab, and a four-wheel tender.

The engine was selected by us especially for the person who wants a small 5" gauge Tender Engine that is not too big and heavy to carry, and reasonably easy to make.

Cylinders 1 1/2" Bore x 2 1/8" Strokes Loco length 29 1/2" Driving Wheel dia. 5 7/8"

"BLISWORTH No.1 and No.2" 3 1/2" Gauge Contractors Saddle Tanks

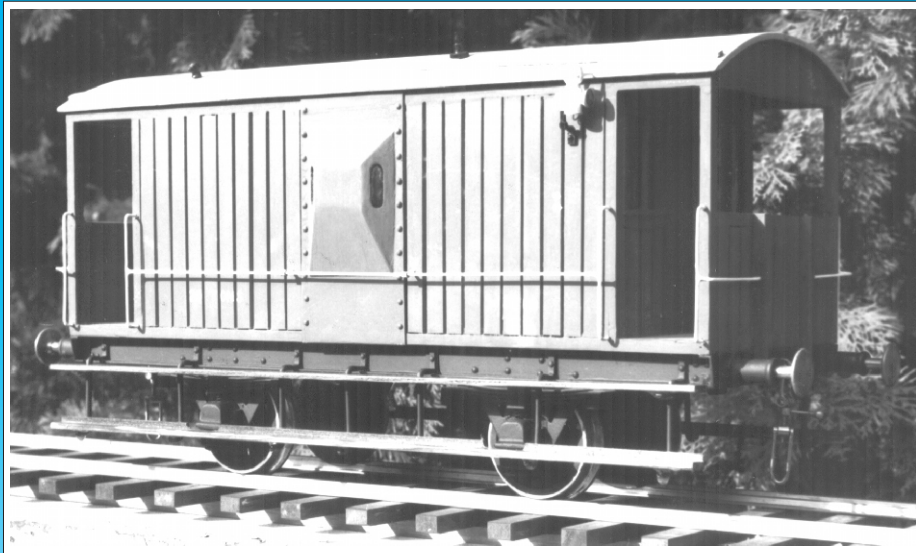


A 3 1/2" Gauge Contractors Saddle Tank.

Both engines are of the Contractors Type with inside Cylinder and fitted with Joy Valve Gear.

"Blisworth No.1" 3 1/2" Gauge 0-4-0 as illustrated.
Cylinders 1" Bore x 1 1/2" Stroke Wheels 3" dia. Boiler 3" dia.
Axle Driven Feed Pump.

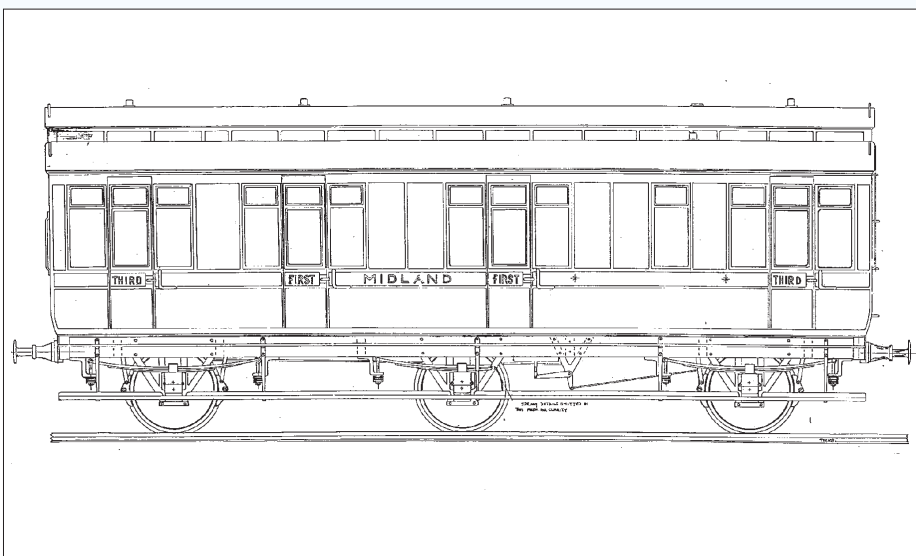
"Blisworth No.2 " 3 1/2" Gauge 0-6-0
As No.1 but with 6 coupled wheels longer frames and a 3 1/2" dia. Boiler



3 1/2" gauge N. E. 20 TON BRAKE VAN WITH DISC WHEELS



3 1/2" gauge L. M. S. 12 TON DROP SIDE 3 PLANK OPEN WAGON



3 1/2" gauge MIDLAND 6 WHEEL CLERESTORY ROOF STOCK 1898-1899 CARRIAGE

For the above we only supply drawings and dummy Spring and Axle Box Castings

BRUNELL

STEAM MODEL ENGINEERING

TERMS AND CONDITIONS

Our terms are strictly "Cash with Order". We accept cheques, postal orders, and all major credit. Authority Approved Orders nett cash 30 days.

All items are dispatched as soon as possible, usually within 21 days of receipt of Order, but if we expect a delay at the Foundry of more than 28 days you will be notified by post.

Any castings found to be defective will be replaced free of charge, if the defective casting is returned to us.

We reserve the right to invoice goods at the prices ruling at the time of dispatch, and while every care has been taken to describe goods correctly, we will correct any unintentional errors, if advised. We will also reserve the right to alter specifications without prior notice.

Thank you for purchasing our catalogue, we hope you found the catalogue interesting and you found good ideas for your next project.

As with all our engines we try to ensure there is a whole range of different materials to machine, cast iron, steel, aluminium, gun metal giving variety, and a chance to try different tuning and milling techniques.

All the best with your next project, from all at -

Brunell Models.

MODEL STEAM ENGINE SPECIALISTS

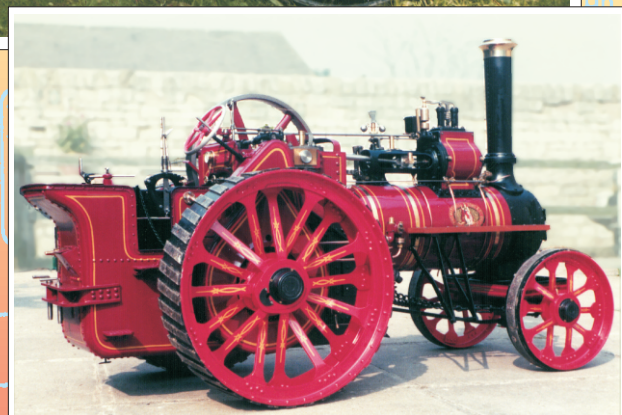
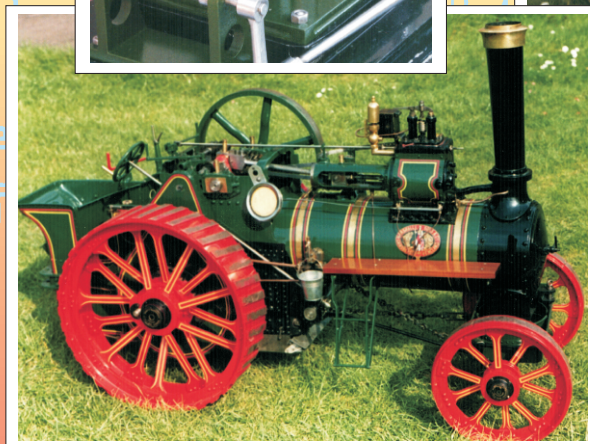
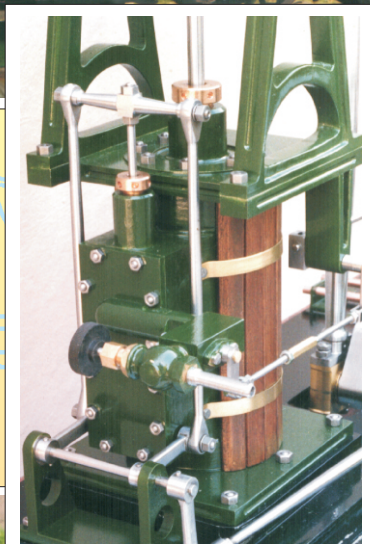
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