

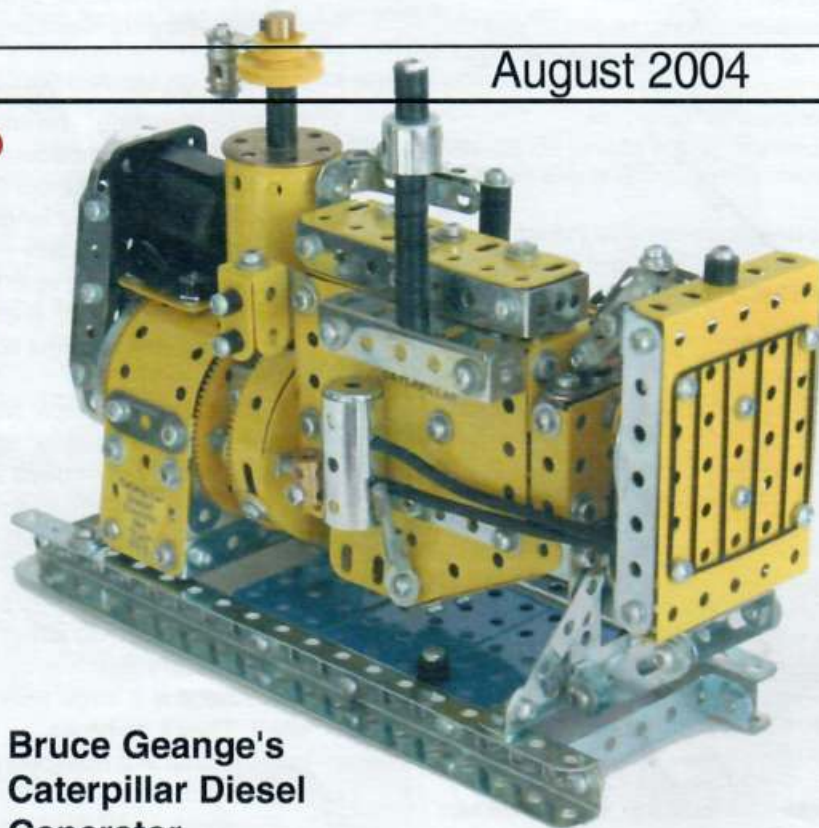


NZFMM MAGAZINE

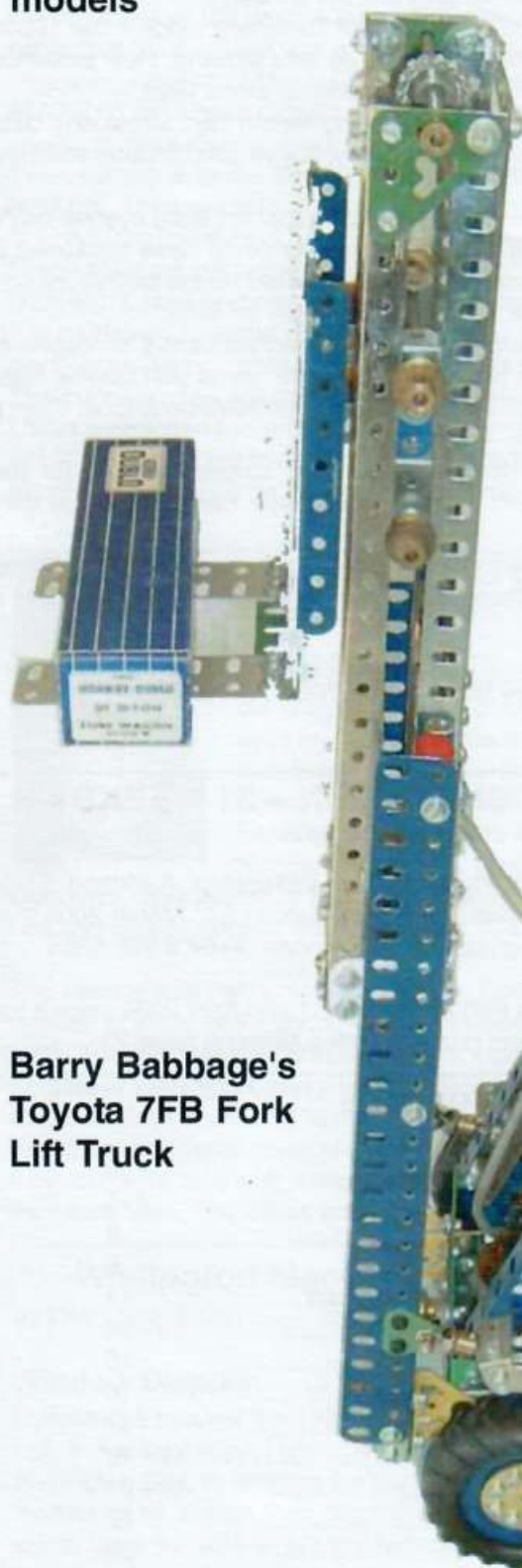
Volume 28 No 4

August 2004

Two more great **MECCANO** models



Bruce Geange's
Caterpillar Diesel
Generator



Barry Babbage's
Toyota 7FB Fork
Lift Truck

NZ Federation of Meccano Modellers Magazine

Editor: Bruce Neilson,
P O Box 1009,
Palmerston North. 06 355 0776
Email: <rbneilson@infogen.net.nz>

Compositor: John Ince,
5 Lennox Place, Feilding. 06 323 7075
Email: <johnince@man.quik.co.nz>

Roving Reporter: Bob Prescott,
16 Watford Drive, Kapiti Village,
Paraparaumu 6010. 04 9052963
Email: <bobbandanne@paradise.net.nz>

The NZFMM Magazine is published six times a year in February, April, June, August, October and December. The publisher is the NZ Federation of Meccano Modellers. The purpose of the magazine is to publish articles and photographs about Meccano and Meccano models, to report the meetings of New Zealand Meccano Clubs, to print letters expressing the views of Meccano modellers, to keep members informed of future events and to print advertisements of Meccano related things. The views expressed in the magazine are not necessarily those of the editor or of the Federation.

Letters are welcome and may be sent by post or by email. The author's name and address must be supplied. Publication of letters will be at the editor's discretion.

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Lloyd Spackman, Villa 22, Redwood Village,
Main Road, Tawa, Wellington, New Zealand.
Email <fishplate@paradise.net.nz>

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Articles etc. for the August 2004 issue of NZFMM Magazine should be sent to the Editor well before 7 October 2004.

Back Numbers - NZFMM Magazines from April 2001 are available. These are printed to order and delivery will be up to six weeks after payment date. Contact the Editor.

Want to Worry?

So your latest Meccano model won't work properly and did the baby really swallow those bolts? Lets get real and worry about something substantial. The following notes by Bruce Sterling (abbreviated) appeared on Spanner recently and puts life in perspective.

Five reasons why the planet is going to hell.

1 - Global dimming: The sunlight reaching Earth's surface is getting feebler. Solar radiation had declined a startling 10 percent in 30 years.

Implications: Who put out the lights? How will we eat?

2 - Unpredictable day length: The advent of the quartz clock in the 1930s proved that Earth's daily rotation on its axis was slowing. New evidence indicates the planet's spin has been speeding up since 1999.

Implications: Days of unpredictably varying length can affect any data interchange that requires absolute synchrony. We've got computer software problems.

3 - Interplanetary chaos: New findings suggest that the solar system might be chaotically unstable, and that this instability could have beckoned a giant asteroid out of deep space which in turn killed off the dinosaurs.

Implications: The whole solar system is inherently off-kilter.

4 - Killer supernovas: A supernova may have once fried Earth's atmosphere, destroying ozone, killing sea life, and blasting the planet with cosmic rays. Implications: If Earth has settled in a bad galactic neighbourhood, there's not much we can do about it.

5 - Planetary insolvency: How will insurance companies pay for the devastation if a large asteroid were to collide with Earth? As usual they won't. They'll go broke.

Implications: In a brief 50 years, Earth will be disrupting human enterprises faster than we can rebuild them. Earth will be bankrupt and no longer a viable commercial concern

Oil your model, feed the baby laxative, and really worry! ☺

R. Bruce Neilson.

2005 NATIONAL CONVENTION – 31 WEEKS TO GO

Pakuranga Youth Centre, 13c Reeves Road, Pakuranga, Auckland
Friday 25th March 2005 12 noon to 5.00 pm Sunday 27th March 2005
email <convention2005@augustus.co.nz>. Phone: ++64 9 535 5355.
Fax: ++64 9 537 3989.

See the NZFMM Magazines Feb 2004 page 11 and April 2004 page 8 for details of the competitions and prizes on offer. More on page 23.

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2004 - What's in Store?

by Lloyd Spackman.

Meccano France's 2004 catalogue contains a few surprises and much of the "same again". These sets should be arriving in New Zealand from September onward. Last month Toyworld Wellington City was selling 2003 sets at greatly reduced prices. At the bottom of the scale is a new plastic series called **Meccano Heroes**. 13 sets. Very Lego looking, for age 4+ children. The 13 set **Yoocans** continues with some new characters. The plastic **City** series has new models and new subjects topped by a realistic Land Yacht and a Concrete Mixer Truck. Coming to the more "metallic" sets, the **Design** series now has six "starter" sets which include some of the flexible parts. At the top end of this series is a sophisticated, radio controlled SUV vehicle with a high wheel base. The **Multi Model** sets are here again, beginning with the 2511-12-13 two model sets (£ 5.99 in the U.K.) and going up to the 9550 (£55.99). These models are mostly the same as in past years. **Future Masters** seems to have disappeared.

Then we come to the **Special Edition** Building Construction sets, 0509 to 0513 (£69.99). They seem to be all metal and can build such edifices as the Eiffel Tower or London's Tower Bridge. The other two Special Edition sets - the Crane and the Locomotive are still featured. Each is £59.99. There is also an all-metal Ferris Wheel (£29.99). **Crazy Inventors** models re-appear, with the addition of a clock.

For modellers in metal, the **Design** series offers the most hope and the SUV is worth considering, while the Buildings sets offer a lot of metal parts to play with. The prices quoted are from MW Models Newsletter.

I have mentioned this previously - the only sets directed at modellers older than 15 years are the Crazy Inventors models - "8 to 88 years". Does this say something about Meccano France's attitude to we older modellers??



Set 0512 - London's Big Ben



WEDDING BELLS

by Lou Nichols

It is not often that a wedding is reported in our magazine, so it gives me pleasure to write an account of the lovely wedding that took place at the Khandallah Presbyterian Church on the 26 June 2004 at 2.00pm between our members Bryan Jones and Nancy Blake. The Wellington Meccano



Club were represented by Keith and Emma McCallum, Simon and Susan Moody, Lou and Shirley Nichols and Laurie and Jean Webb.

The service was conducted by the Rev. Fraser Paterson, a minister for a good number of years and a good number of weddings but for him it was a wedding of firsts. The first wedding with two choirs, being the church choir and the Festival Singers of Wellington, and a first in that there were three organists, a pianist and a flautist. Both Bryan and Nancy share a love of music and belong to both choirs, hence the wonderful musical support. The one tier wedding cakes also reflected their interests, one with a musical theme with the letters N & B and one with a miniature train. The cakes were linked together with a bridge.

Wellington Meccano Club News

by Lloyd Spackman

Window Display:

Following a request from Mr. Gordon Good at Rainbacryl Ltd., in Kaukapakapa, I contacted the manager of Toyworld, Wellington City, to arrange for the loan of some Meccano models to tie in with their display of 2003 Meccano sets which were for sale at greatly reduced prices. Six of our members loaned over 20 models which were displayed in a prominent window next to the store's entrance for two weeks. Feedback from Toyworld was that they were very

pleased with the display and sales of Meccano sets had been excellent.

An 8258 Set:

As an acknowledgment of Wellington Meccano Club's help with the Toyworld window display Rainbacryl Ltd. has donated a Set 8258, Ferris Wheel, to the Club. At our next meeting we will have to decide what to do with it. Personally, I think it should be auctioned at our October meeting after most of our members have had a chance to inspect it. Proceeds to go to Club funds of course.

Fork Lift Truck

Based on Electric Toyota 7FB Type
by Barry Babbage

Working features are:- powered fork carriage with electronic auto function and manual operation, powered mast extension, mast tilt control, forward and reverse travel and rear wheel steering.

The model is built from a variety of parts, both old and recent. The main challenge was to build a compact model of reasonable appearance and representing a likeness to the 7FB series. Two motors have been utilised to control all the working mechanisms.

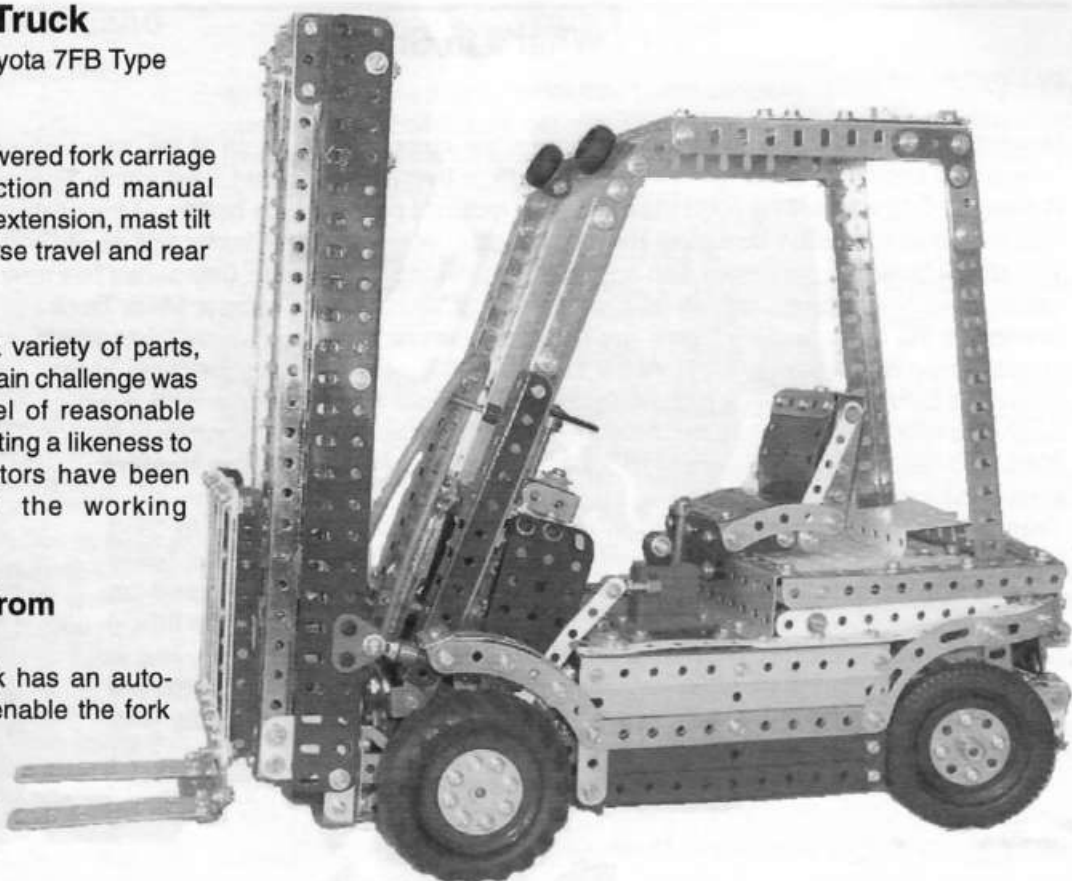
Meccano with help from electronics.

The model Fork Lift truck has an auto-reverse system that will enable the fork assembly to reverse travel direction from both the upper and lower extremities of its normal travel.

A simple electronic control has been utilised just to demonstrate the usefulness in assisting Meccano models such as this, to work effectively. Two very small reed switches are positioned at the lift travel turn around points. The lift carriage has an upper and lower small round magnet fixed in place. As the carriage approaches close to the reed switch, it will change from a normally open to a normally closed state. This change of state will produce a clock signal to the input of a basic flip-flop device programmed in a toggle mode. The output of the flip-flop will then power on or off, a double pole/double throw relay. The relay is wired to reverse the motor direction with each clock pulse. This is a similar concept to model railway forward and reverse circuits. See the schematic diagram for wiring detail.

Working Mechanism

Figure 6 shows the main lift controls. The one closest to the drivers seat operates the fork carriage for normal use. It has a forward, neutral and reverse control over the carriage. The lever situated in the most outer position controls the mast frame tilt. These two



levers enable full manual control of the lift and tilt. In addition to this the carriage will automatically travel up and down the frame in a cyclic mode. This will occur if the manual lever is moved to either up or down travel from neutral. The function is briefly explained in the paragraph above.

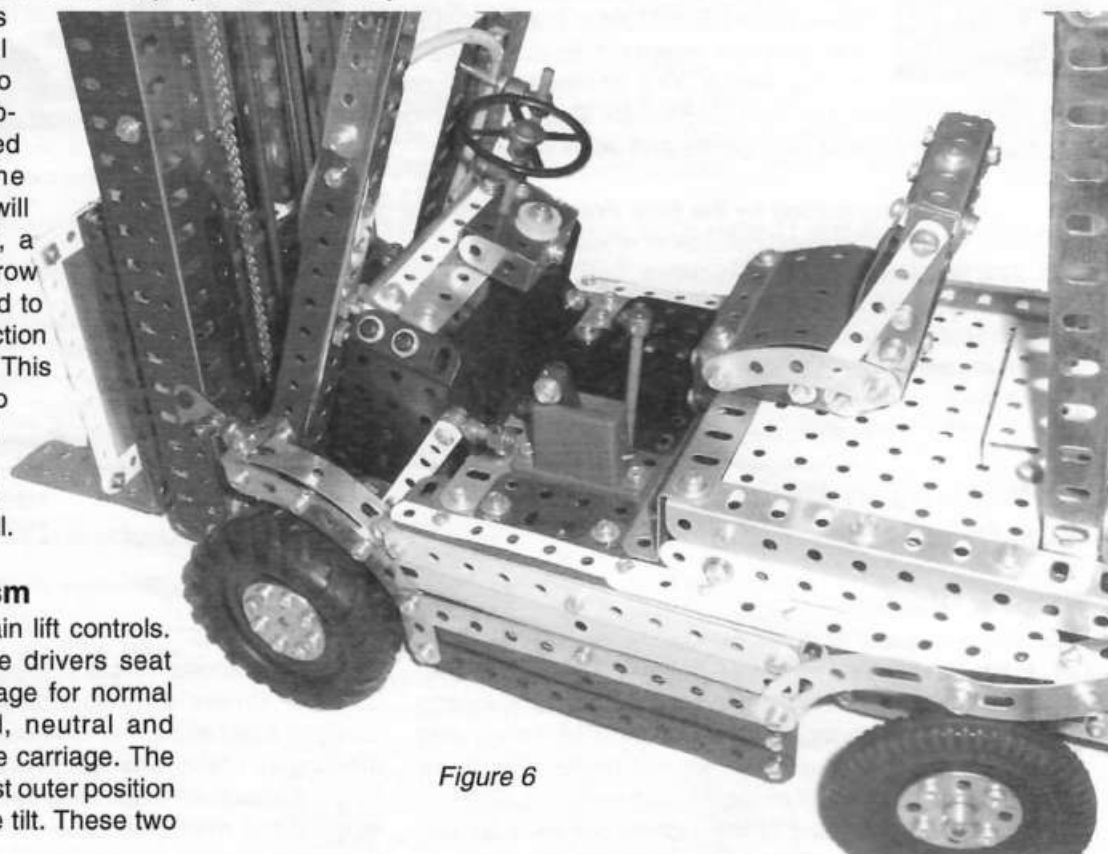


Figure 6

The electric motor used to operate the carriage and vehicle travel is one of the German Decma units. This was chosen since it has sufficient power to operate reasonably with loads. A separate Märklin 1018 motor is utilised to control the mast extension frame section which enables extended lift capabilities. The red plastic housing of the reversible switch is seen adjacent to the main control lever. To activate the extension, the carriage is first lifted to its upper limit. The extension switch is then engaged from its central or middle position. Now the motor will lift the inner-housed mast (with the carriage) to a higher level. The downward procedure is then initiated by shifting the control lever to reverse. Figure 7 reveals some of the working mechanism that controls the carriage and extension.

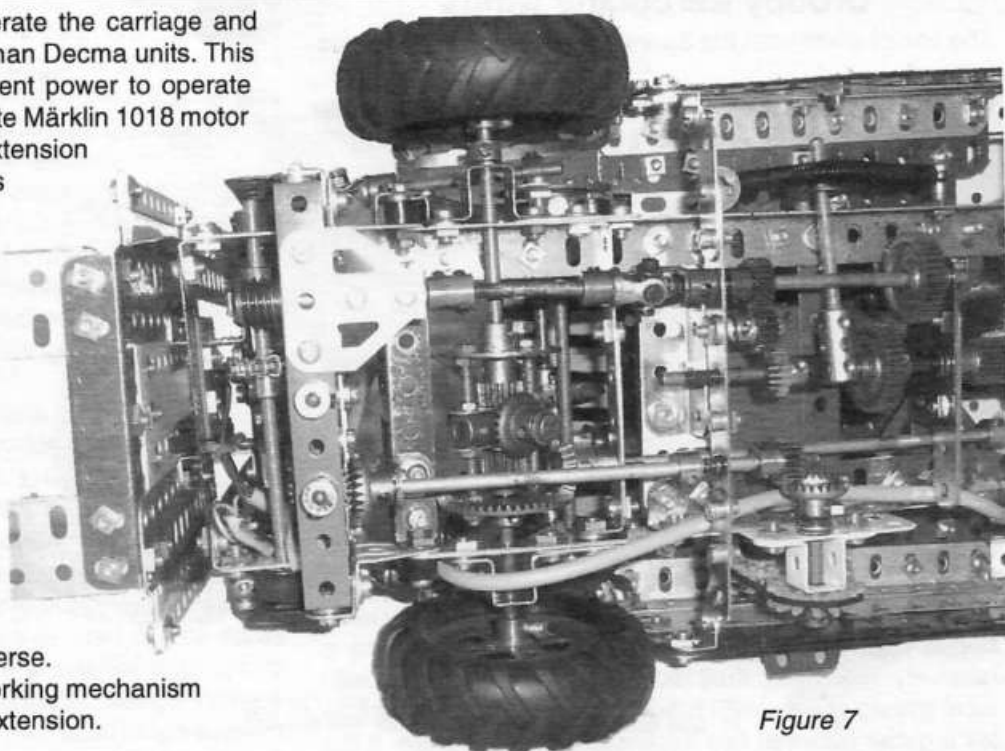
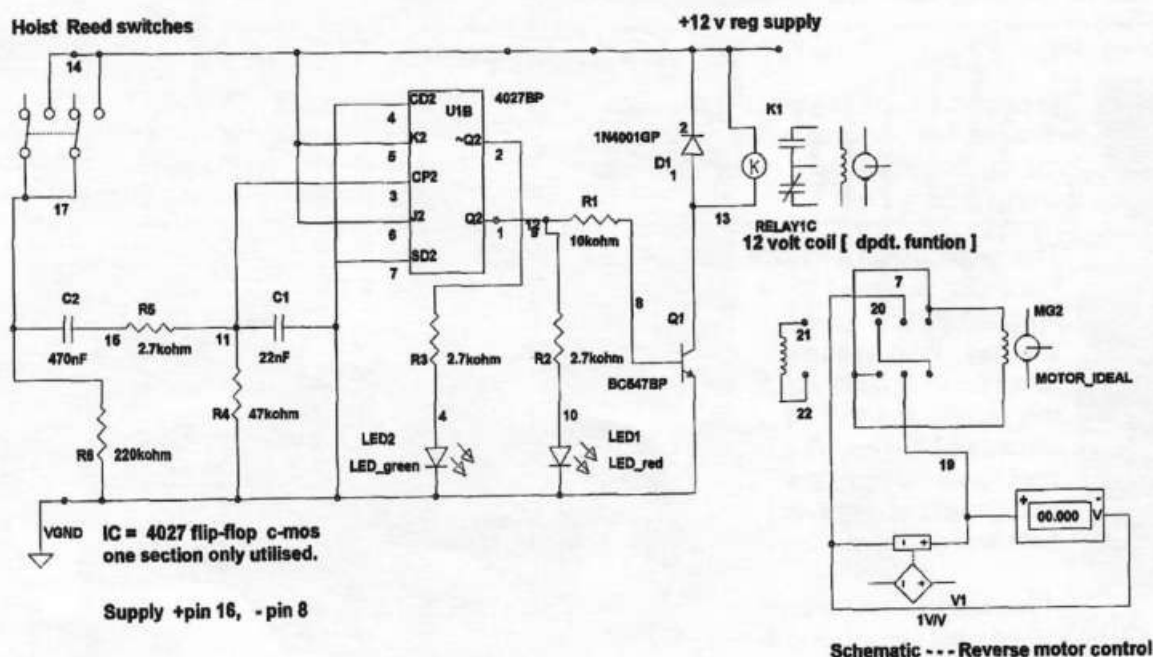


Figure 7

The output shaft from a forward and reverse gear box links to the carriage drive via a Flexible Coupling shaft and universal. The shaft end carries a Worm gear that drives a $3/4$ Pinion and small Sprocket Chain wheel. This sets up the travel for the carriage via a long Sprocket Chain and further Sprocket Chain wheel higher up the frame. A lower position shaft (seen in Figure 7) carries a small Contrate Gear driving a Pinion linked to a long Screwed Rod. This Rod is journaled into a Screwed Rod Adaptor. When the extension lift is activated, the inner mast frame which makes up the extension, rises up through the outer frame. The Pinion engaged to the Worm gear, also lifts up so the lower carriage drive is no longer functioning, even if the main motor is still running! A very small clutch mechanism made

up from a Handrail Coupling and small tyred Pulley, has been arranged to prevent the carriage from sliding or 'free falling'. This is necessary, as the drive is no longer locked to the Worm gear. At the rear of the model a remote lever can be utilised to set the truck in forward or reverse travel. A novel use for a Flexible Shaft is put to use. A simple gate arrangement assists the Flexible Shaft, which is used as the gear select lever. Centre of the gate selects neutral. Movement to either side selects forward or reverse. Steering of the rear wheels controls the direction of travel. Also a differential is employed in the main drive.



Meccano forklift auto reverse hoist - reed switch magnet switching function.

Droopy Aeroplane wings

The use of email from the Spanner group is acknowledged

Do any enlightened Spanners have comments on how to strengthen aeroplane wings so they do not droop? Its not so bad on small models, but larger ones present a problem, especially biplanes. Obviously spars as on the prototype would be the answer, but due to certain complexities, the single flexible plates will have to suffice, in my case. (*Brian Willis, Gig Harbor, WA.*)

I have made a number of large biplanes and wing droop always needs to be considered. The problem becomes even more interesting where a dihedral is involved. A large wing made only out of a single thickness of flexible plates is going to droop or sag without additional stiffening. There is a point where ingenuity runs up against the laws of physics. One issue is that the designers of biplanes were more interested in preventing the wings from being torn off in flight by air pressure against the underside of the wings, than in preventing drooping when on the ground. They used doped canvas stretched over wooden spars to make a relatively light wing: they didn't load up steel spars with steel plating as we do. The best solution I have found is to lay a girder between two thickness of flexible plate. If the girder is turned through 45 degrees so the angle is upwards it has a smaller profile. A narrow girder is even smaller in profile. You can experiment with the position in order to get a good aerofoil shape as the upper plates curve over it. In turn, the curvature of the upper plates means the lower plates want to curve a bit - but not as much - in order for the slots to line up enough to take a screw, and you get an approximation of an aerofoil shape. Of course this solution represents the spars of the prototype and in your email you say you don't want to do that.

With a single thickness, as in my Sopwith Camel, my first effort at a biplane, I stiffened the edges of the wings with perforated strips. It doesn't work too well and when I took the model to Henley I put a girder under the top wing to brace it. Although it wasn't disguised, the height of the tables and the size of the wing meant you could only see the

bracing girder if you bent down to look under the wing. In this case you only need to brace the top wing as it will then hold the lower wing in place. Without knowing the size of your wing it is impossible to give a perfect answer but here are some suggestions. None of them prevent drooping but they all help reduce it.

1 - Lay all flexible plates so the long part of the plate follows the width of the wing. For example, with a part 192, have the 5 holes along the edge of the wing. There is a bit more strength this way. Still not enough to prevent droop. Overlap the outer plate over the inner. As the plates extend they gain a tiny bit of height. That's a tiny bit less droop to worry about.

2 - Stiffen leading and trailing edges of the wing with perforated strips. A stiffening of, say, two layers of five hole strips laid overlapping like brickwork should be stronger than a long strip like a 25h strip, which is pretty flexible in itself. On the other hand it will be heavier. See below!

3 - The more material, and especially nuts and bolts, you add to the wing, the more you increase the tendency to droop so you have to balance stiffening materials against droop. Only stiffen the wing as far out as you need to go.

4 - Pay careful attention to the stringing. You get good mileage out of balancing the weight of one side against the weight of the other so that a line from one wing pulls against the line from the other wing. Study the prototype stringing. Older biplanes often have overhead stringing which can also be anchored to something in the fuselage.

5 - You could cheat by supporting the lower wings at the outer edges with a post to the ground. Horrible solution. Any biplane treated like this should respond with wings sagging in the middle as a protest.

6 - Consider displaying the model "in flight" by suspending it from the ceiling or a purpose built stand. This substitutes a new set of problems but at least you get to determine the suspension points and can then work to distribute the forces. Essentially you will have the weight taken by a strong member within the fuselage, and use "false" suspension wires to balance one wing against the other so they are held to the appropriate angle. (*Chris Bourne, London UK.*)

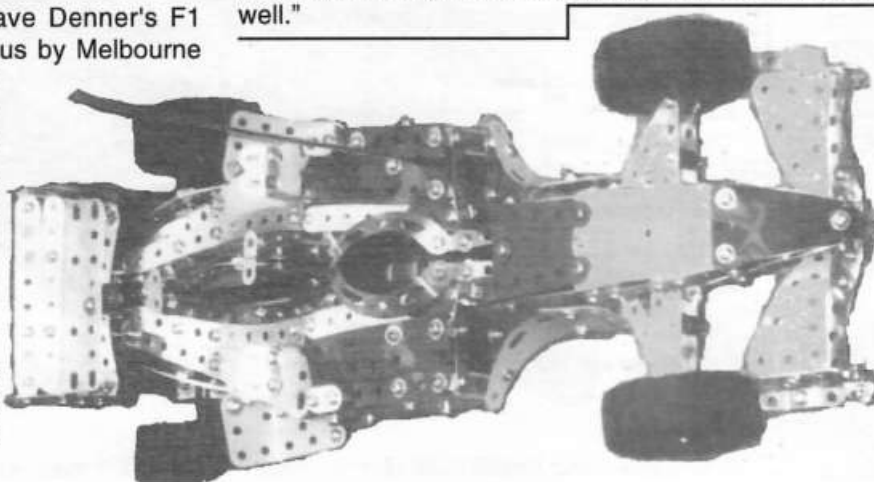
What Readers think



This partly full bottle of Meccano Oil, located in France, was sold on eBay on 29 June 2004 for the equivalent of NZ\$300 after fourteen bids.

This photograph of Dave Denner's F1 Race Car was sent to us by Melbourne Meccanoman, **Peter During**. We're sorry about the poor quality of the picture but that is because it was photographed against a background of a gravel path and green lawn.

If you want your pictures to look really good then what about using a better background such as white cardboard?



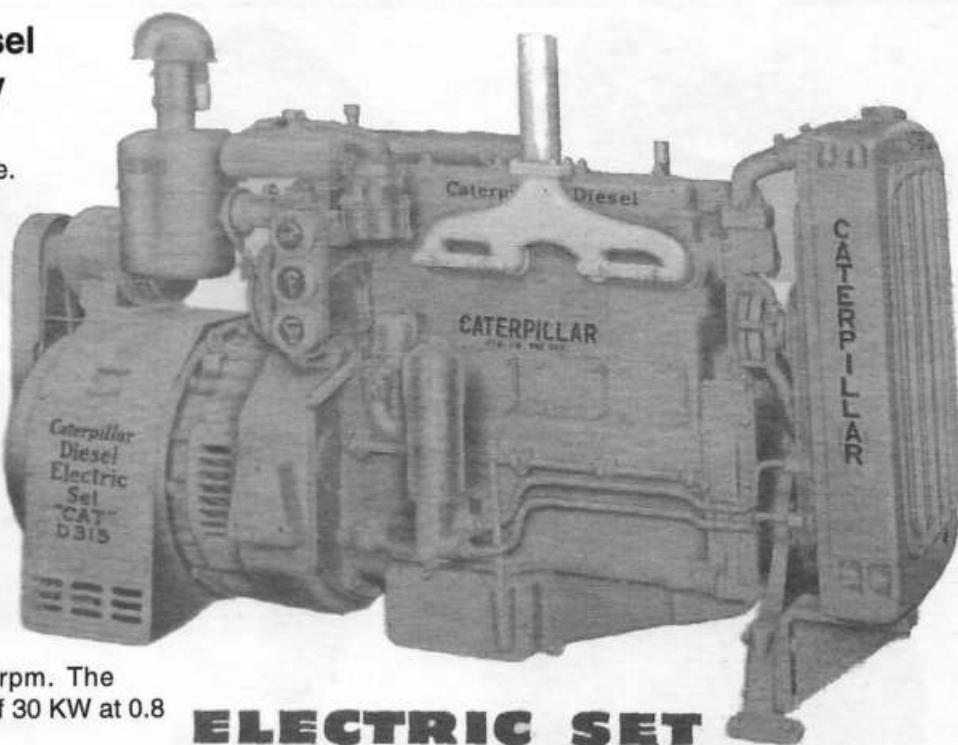
Mr. Chris Thompson, Christchurch writes — "The future for me looks a little uncertain, consequently I have sold my Meccano set. Would you please not send any further copies of NZFMM to me. I have enjoyed 60 years ownership of Meccano and take this opportunity to wish all modellers well."

Caterpillar D315 Diesel Powered Electricity Generator

designed and built by Bruce Geange.
text and photographs by Bruce
Neilson.

1 – These Caterpillar Model D315 motor/ generator units have been in production for many years. The illustration is from a 1950s catalogue. They are widely used to provide electricity in locations where grid power is not available or to cover supply during breakdown of the public supply.

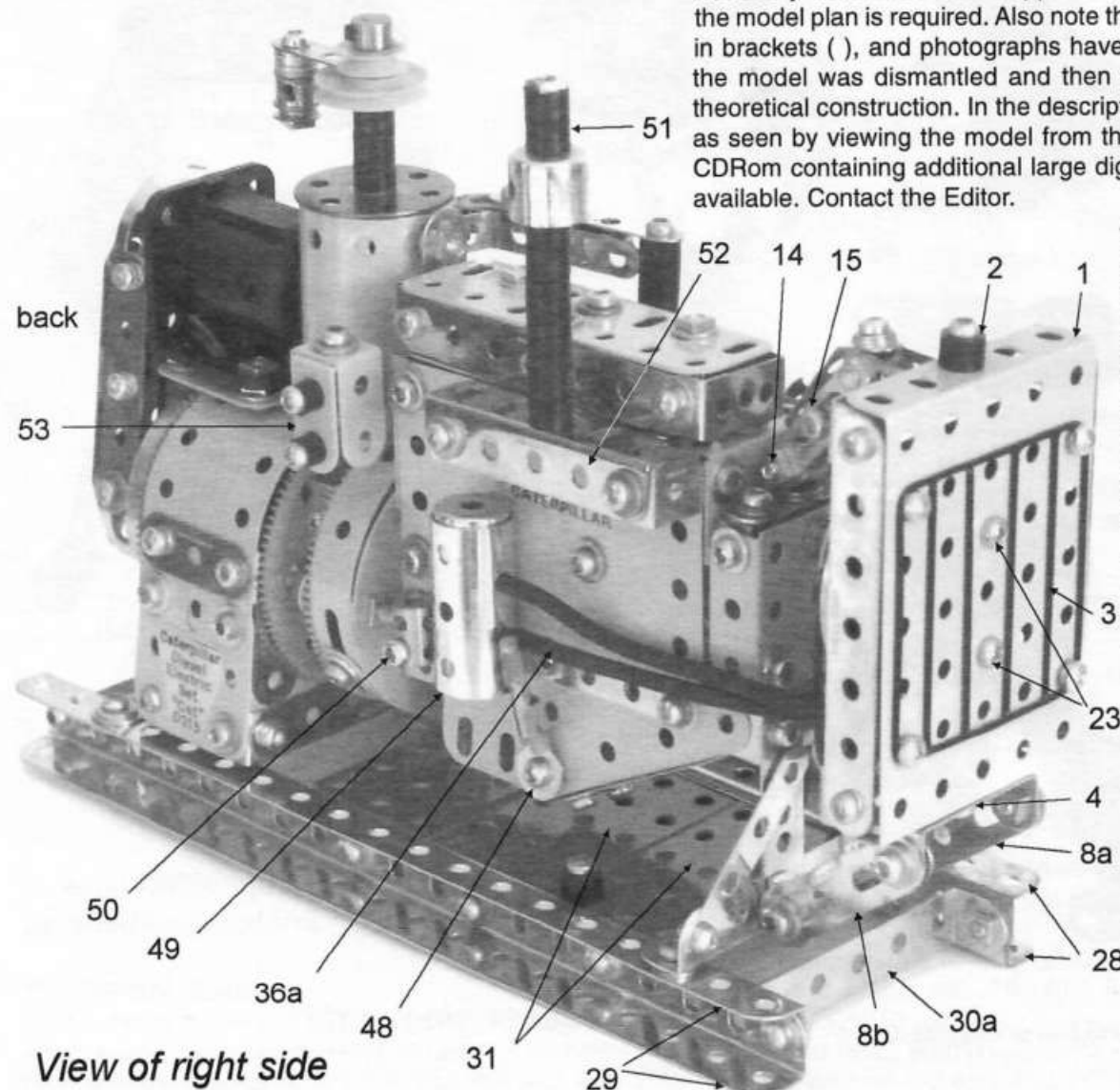
Prototype details – Four cylinder diesel engine with $4\frac{1}{2}$ " bore and $5\frac{1}{2}$ " stroke. producing 70hp at 1600 rpm. The generator has an electrical output of 30 KW at 0.8 power factor at 1200 rpm.



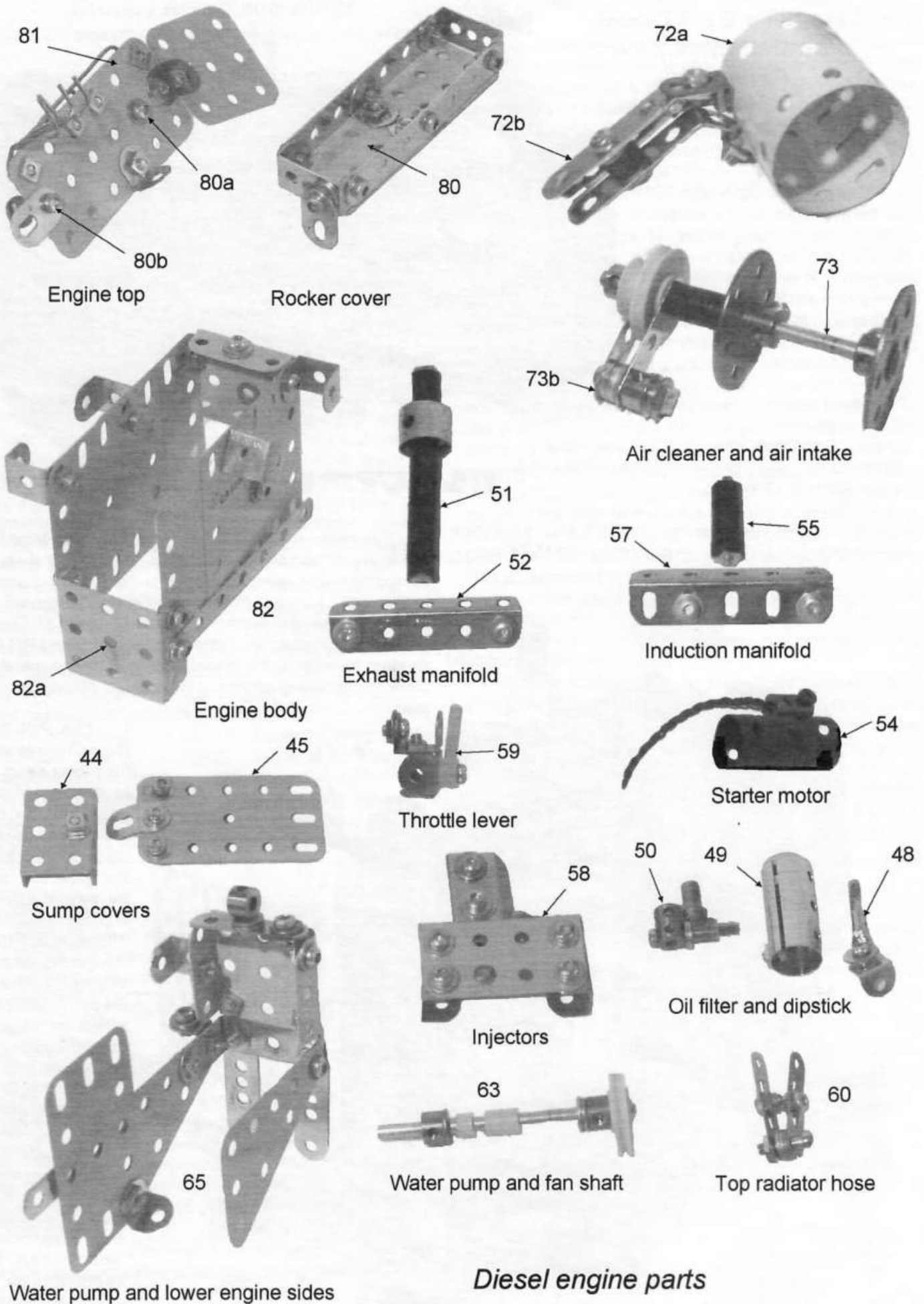
ELECTRIC SET

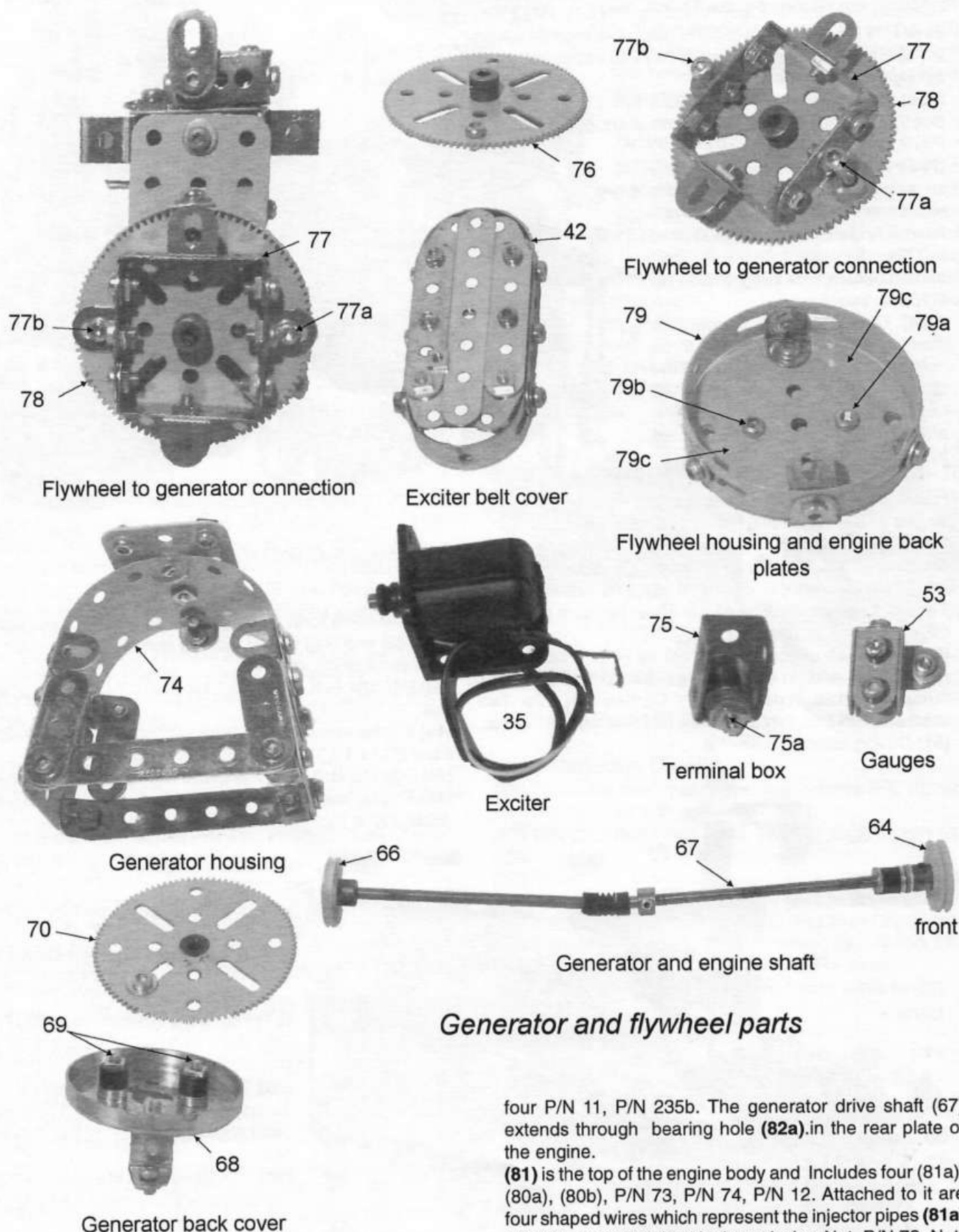
2 – The model was built for an MWT Meccano Club challenge to build a model incorporating P/N 157 Fan.

3 – This model is for the experienced modeller. Most but not every detail has been supplied so a careful study of the model plan is required. Also note that the text, number in brackets (), and photographs have been prepared as the model was dismantled and then reversed to give a theoretical construction. In the description LH and RH are as seen by viewing the model from the generator end. A CD Rom containing additional large digital photographs is available. Contact the Editor.



4 – The P/N 700 Motor represents the exciter attached to the top of the generator. In the model, the motor drives the fan from the generator end by way of driving bands and shafting. The shafting (67) runs in the bosses of three P/N 27c Gear Wheels which will require careful alignment. Substitute one or more of the Gear Wheels with 95T/57T Gear Rings or similar to gain much more tolerance. The built-up battery box and on/off switch can be replaced by a Meccano battery box.





Generator and flywheel parts

four P/N 11, P/N 235b. The generator drive shaft (67) extends through bearing hole (82a) in the rear plate of the engine.

(81) is the top of the engine body and includes four (81a), (80a), (80b), P/N 73, P/N 74, P/N 12. Attached to it are four shaped wires which represent the injector pipes (81a) P/N 37b, Bolt. Bolt head, shaped wire, Nut, P/N 73, Nut.

(80) represents the rockshaft cover and includes P/N 103d, two P/N 3, two P/N 48e, P/N 111c with three Washers, P/N 10, two P/N 12.

(80a) and (80b) P/N 111, Bolt $\frac{3}{4}$ " - Bolt head, P/N 10, P/N 73, Washer, Nut tight, Nut, P/N 103d, Washer, Nut.

Detailed Instructions.

The Diesel engine

Start building this model with the diesel engine body (82) which is represented by four P/N 190 with centre holes, two Narrow Angle Bracket $\frac{1}{2}$ " x $\frac{1}{2}$ " slotted, P/N 51b, P/N 51a,

(73) The air cleaner is made up from P/N 16b, Axle Rod 3" - Carries P/N 59, P/N 23bp, P/N 235g, P/N 22a, P/N 235g, three P/N 38a, two P/N 24b tight. Note. This module is held in (72a) by tightening the bottom P/N 24b set screw through a hole of the P/N 189.

(73b) This represents the air intake P/N 111, Bolt $\frac{3}{4}$ " - Bolt head, P/N 235g, five Washers, P/N 235g, P/N 23a, Nut.

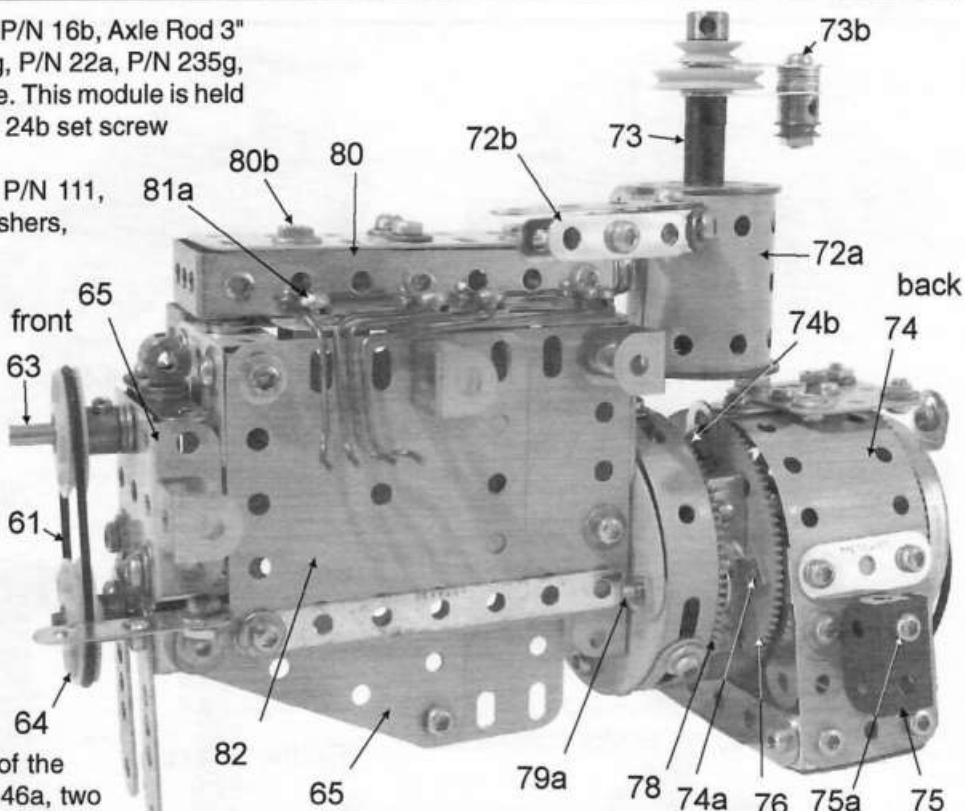
(72b) This represents a pipe in the air supply and connects to (55) on the induction manifold. Includes two Narrow Angle Brackets slotted bolted to (72a), P/N 235h, two P/N 235h bent to obtuse, P/N 235g, P/N 111a, P/N 38a, two Washers.

(72a) The air cleaner surround is made of P/N 189 overlapped three holes and P/N 111c used to hold the curve. The P/N 111c carries P/N 189 twice, three Washers, Nut. An additional locking Nut is suggested to help construction.

(65) This is the lower and front part of the engine and includes two P/N 6, P/N 46a, two P/N 235g, one P/N 12, two Narrow Angle Brackets slotted, P/N 11, two P/N 806b, P/N 51b, P/N 59 with two Washers, two P/N 221, P/N 188, P/N 235b. The front section represents the water pump. It has (60), the radiator hose, attached to it.

(63) This shaft is driven from (64) by (61). It carries the radiator Fan and, in the prototype, also drives the water pump. P/N 16b, Axle Rod 3" - Carries P/N 22p, two Washers, P/N 51b, P/N 51a, three P/N 59c, Washer, Collar.

(61) Driving Band 3" Diameter.



Partly assembled unit LH side

The next items form the engine sump and from this point, with (45) and (46) added, access is no longer possible to the interior of the engine.

(46) P/N 37b, Bolt - Bolt head, Washer, (45), Angle Bracket, Nut.

(45) Engine sump cover - front section. P/N 188, Flexible Plate $2\frac{1}{2}$ " x $1\frac{1}{2}$ ".

(44) P/N 37b, Bolt - Nut, Fishplate, Nut tight, (43), Bolt head.

(43) Engine sump cover - rear section. P/N 51a, Flanged Plate $1\frac{1}{2}$ " x 1".

(60) represents the top radiator hose. (14), (15), (16), (20), (21).

(59) Is the throttle lever. Three P/N 11, P/N 120e.

(58) The injectors are represented by two P/N 11, P/N 12, P/N 161, P/N 51c with P/N 64 inside.

(57) This is the induction manifold P/N 37b, Bolt - Bolt head, Washer, P/N 9f, P/N 11, Nut.

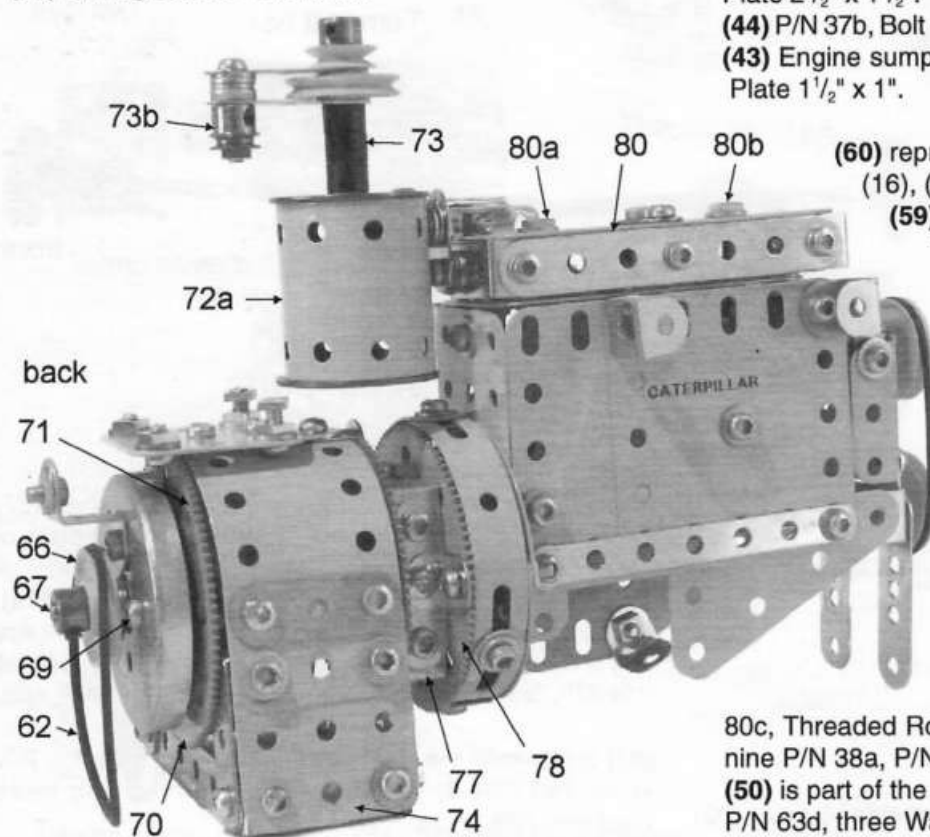
(55) This is part of the air intake to the air cleaner P/N 111d, Bolt $1\frac{1}{8}$ " - Bolt head, three P/N 38a, P/N 23c, P/N 9d, Nut.

(54) This represents the diesel engine starter motor and includes P/N 12, P/N 23bp, P/N 163, P/N 63d.

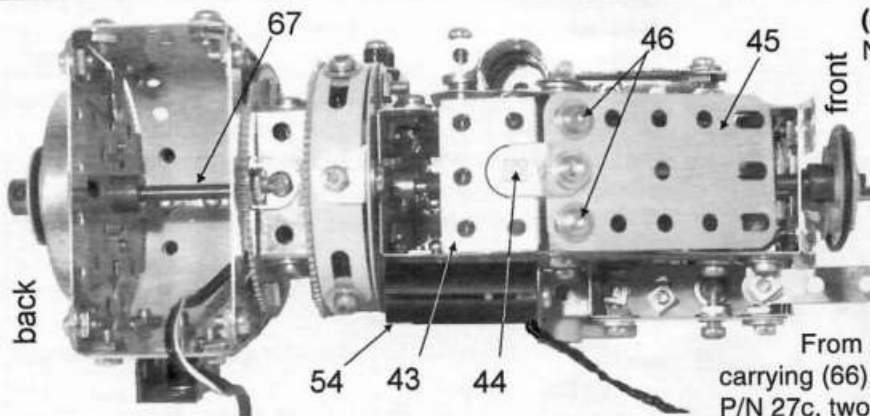
(51) The exhaust pipe comprises P/N

80c, Threaded Rod 3" with a Nut, two P/N 38a, P/N 164, nine P/N 38a, P/N 9d, Nut. It is attached to the top of (52)

(50) is part of the oil filter. P/N 111d, Bolt $1\frac{1}{8}$ " - Bolt head, P/N 63d, three Washers, P/N 120dM, P/N 235b, P/N 188, P/N 188, Nut.



Partly assembled unit RH side



Underside with sump plates attached

(49) The oil filter is made up of P/N 163 with P/N 164, P/N 188, P/N 12, Nut.

(48) The dip stick is held in place by P/N 37b, Bolt - Bolt head, P/N 212 with P/N 18b, two Washers, P/N 221, P/N 188, P/N 12, Nut.

The Flywheel

(79) Is the flywheel housing and Includes two P/N 214, three P/N 12, three P/N 215. Two Semi Circular Plates (79c), overlapping in a horizontal line, to form a 2 1/2" plate, are attached to the back of the engine by (79a) and (79b) P/N 37b, Bolt - Bolt head, P/N 214, P/N 214, P/N 51b, Nut.

(78) is the back of the flywheel housing and is P/N 27c, Gear 95T.

(77) connects the flywheel assembly to the generator. It Includes two P/N 48, two P/N 6a, four P/N 12.

(77a) and (77b) P/N 147g, Pivot Bolt 1". Bolt head, P/N 12, P/N 27c, P/N 214, Nut.

The Generator

(76) is the front of the generator housing. P/N 27c, Gear 95T.

(75) is the terminal box P/N 51c, Flanged Plate, 1" x 1/2". (75a) P/N 111, Bolt 3/4". Bolt head, (75), P/N 12, P/N 38a, five Washers, Nut.

(74) is the generator housing and Includes two P/N 4, three P/N 74, seven P/N 6a, P/N 189, ten P/N 12, two P/N 111c. The following Bolts connect the generator housing to (77):- (74a) and (74c) P/N 37b, Bolt - Bolt head, P/N 6a, P/N 12, Washer, P/N 27c, Nut.

(74b) P/N 37b, Bolt - Bolt head, P/N 12, P/N 27c, P/N 12, Nut.

(74d) P/N 37b, Bolt - Bolt head, P/N 27c, P/N 12, Nut. The following parts (71) connect the generator housing to the generator back plate.

(71) P/N 37b, Bolt - Bolt head, Washer, (70), P/N 12, Nut.

(70) P/N 27c, Gear 95T.

(68) This is the rear housing of the generator and comprises P/N 137, Wheel Flange - Carries P/N 125.

(69) P/N 147d, Pivot Bolt - Two Pivot Bolts pass through (68), and carry four Washers, P/N 38a, (70), Nut.

(56) Secures the motor to the top of the generator housing P/N 37a, Nut. Allows removal of the motor, (35), which carries P/N 23c, a black rubber pulley.

(42) This is the exciter belt drive cover and includes four P/N 5, four P/N 10, two P/N 215, P/N 3, P/N 48.

(41) P/N 37b, Bolt - Bolt head, Washer, (40), Nut.

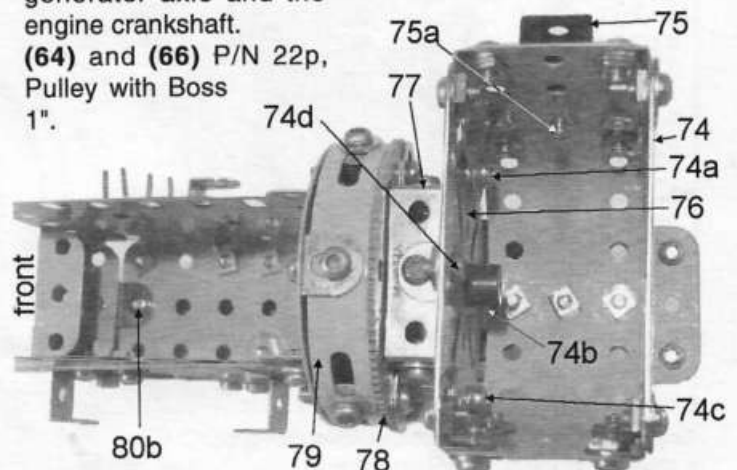
(40) is at the back of the generator housing P/N 3, Perforated Strip 3 1/2", supported by (39) P/N 12, Angle Bracket 1/2" x 1/2", which are in turn bolted to (38) P/N 77, Triangular Plate 1" underneath the generator housing.

Drive shaft

(67) This is the shaft which is driven by the motor at the rear of the model and passes through to the front where it drives the fan.

From the rear end it comprises a 4 1/2" Axle rod carrying (66), four Washers, (68), P/N 38a, Washer, three P/N 27c, two P/N 214, Washer, P/N 59, P/N 213c, 4" Axle rod. In the prototype it would be the generator axle and the engine crankshaft.

(64) and (66) P/N 22p, Pulley with Boss 1".



Underside without sump plates

(62) Driving Band 3 1/2" Diameter

Miscellaneous Details

(53) This is the instrument panel and Includes P/N 10, two P/N 102, two P/N 38b.

(52) P/N 37b, Bolt - Bolt head, Washer, P/N 9d, P/N 11, Nut.

(37) Power supply to starter motor. - Wire - plastic covered.

(36a) This tubing represents the oil lines to the oil filter.

(36) This tubing represents the fuel lines to the injectors.

(35) The generator exciter is represented by P/N 700, MO Motor Mk. 2. The motor actually drives the model.

(34) Battery Box with on/off switch. Power wires to (35).

Base frame assembly

(33) P/N 3, Perforated Strip 3 1/2".

(32) P/N 37b, Bolt - Bolt head, Washer, (28), Washer.

(31) P/N 51, Flanged Plate 2 1/2" x 1 1/2".

(30b) P/N 48a, Double Angle Strip 1/2" x 2 1/2" x 1/2".

(30a) P/N 48a, Double Angle Strip 1/2" x 2 1/2" x 1/2".

(29) Base RH side P/N 8a, Angle Girder 9 1/2".

(28) Base LH side P/N 8a, Angle Girder 9 1/2".

(27) P/N 6, Perforated Strip 2".

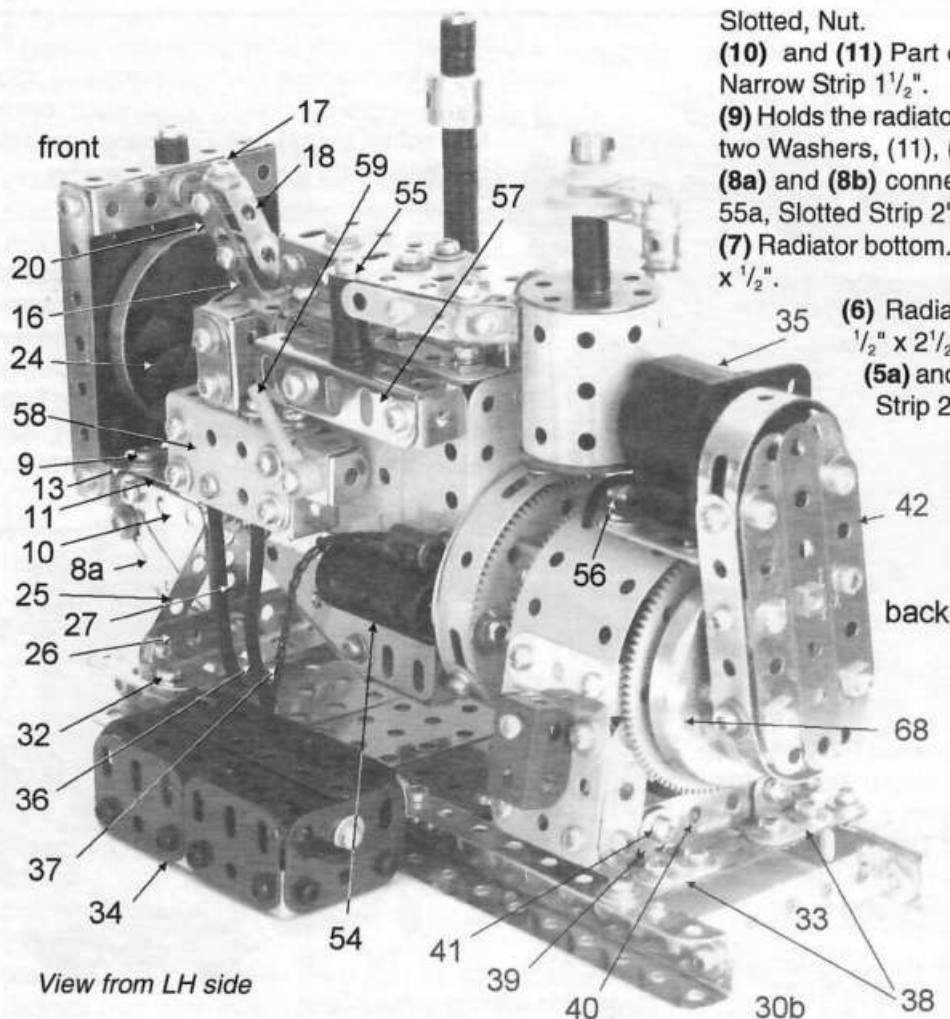
(26) P/N 9b, Angle Girder 3 1/2".

(25) P/N 235h, Narrow Strip 2".

Engine radiator

(24) P/N 157, Fan.

(23) Secures the Wheel Flange to the radiator front. P/N 147d, Pivot Bolt - Bolt head, (1), P/N 38a, four Washers,



View from LH side

Slotted, Nut.

(10) and (11) Part of the bottom radiator hose P/N 235g, Narrow Strip $1\frac{1}{2}$ ".

(9) Holds the radiator in position. P/N 37b, Bolt. - Bolt head, two Washers, (11), (13), Collar threaded hole.

(8a) and (8b) connect the radiator to the base frame P/N 55a, Slotted Strip 2".

(7) Radiator bottom. P/N 48a, Double Angle Strip $\frac{1}{2}$ " x $2\frac{1}{2}$ " x $\frac{1}{2}$ ".

(6) Radiator top. P/N 48a, Double Angle Strip $\frac{1}{2}$ " x $2\frac{1}{2}$ " x $\frac{1}{2}$ ".

(5a) and (5b) Radiator sides. P/N 5, Perforated Strip $2\frac{1}{2}$ ".

(4) Radiator base. P/N 48, Double Angle Strip $\frac{1}{2}$ " x $1\frac{1}{2}$ " x $\frac{1}{2}$ ".

(3) Black wire frame on the front of the radiator to represent the grill.

(2) Radiator cap. P/N 38b, Spacer Plastic Small.

(1) Radiator front. P/N 53, Flanged Plate $3\frac{1}{2}$ " x $2\frac{1}{2}$ ".

two P/N 194 black, Wheel Flange, Nut.

(22) Part of top radiator hose with the following items to (14): Two Narrow Angle Brackets $\frac{1}{2}$ " x $\frac{1}{2}$ " slotted.

(20) and (21) Narrow Strip 1" slotted.

(19) P/N 111a, Bolt $\frac{1}{2}$ " - Bolt head, (20), (22), Washer, Collar, Washer, (22), (21), Nut.

(18) Narrow Obtuse Angle Bracket $\frac{1}{2}$ " x 1".

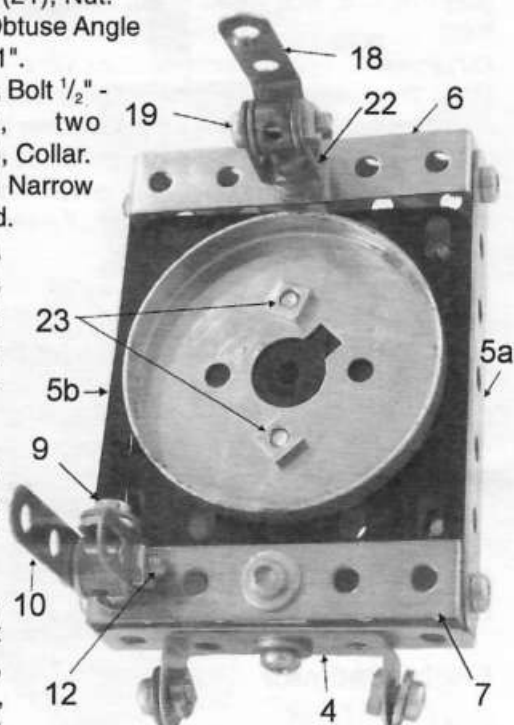
(17) P/N 111a, Bolt $\frac{1}{2}$ " - Bolt head, two Washers, (18), Collar.

(15) and (16) Narrow Strip 1" slotted.

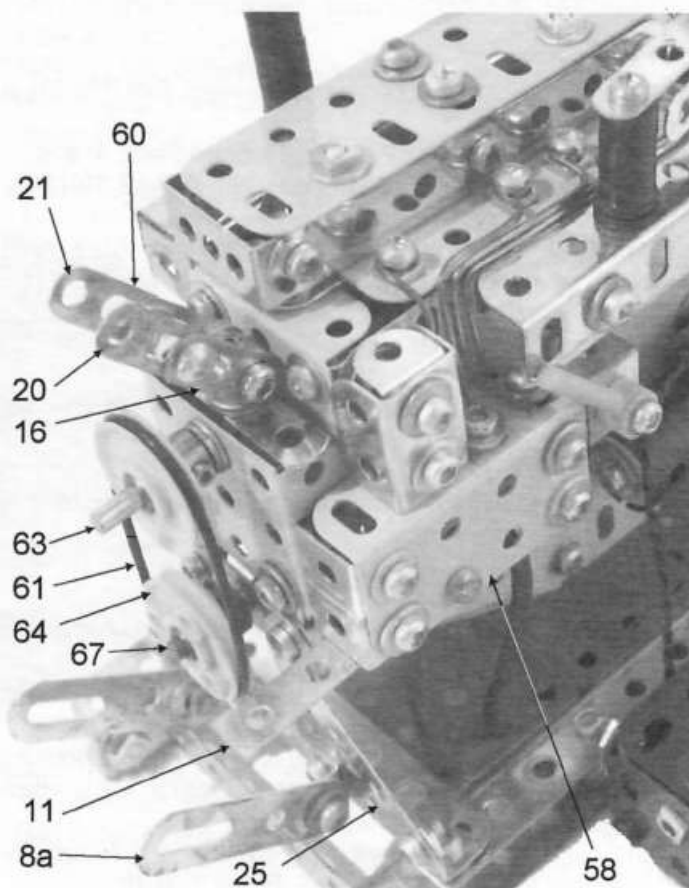
(14) P/N 111a, Bolt $\frac{1}{2}$ " - Nut, (15), Washer, Washer, Collar, (16), Bolt head.

(13) Narrow Angle Bracket $\frac{1}{2}$ " x $\frac{1}{2}$ " slotted.

(12) P/N 111a, Bolt $\frac{1}{2}$ " - Bolt head, (10), Washer, Collar, Washer, 1" Narrow Strip



The radiator from inside



The front end of the engine exposed.

Parts List.

Part No.	Description	Size	Total	Part No.	Description	Size	Total	Part No.	Description	Size	Total
3	Perforated Strip	3 1/2"	7	46a	Double Angle Strip	1" x 1 1/2" x 1"	2	137	Wheel Flange		2
4	Perforated Strip	3"	2	48	Double Angle Strip	1/2" x 1 1/2" x 1/2"	2	147d	Pivot Bolt	1/2"	7
5	Perforated Strip	2 1/2"	4	48a	Double Angle Strip	1/2" x 2 1/2" x 1/2"	4	147g	Pivot Bolt	1"	2
6	Perforated Strip	2"	2	48e	Double Angle Strip	1/2" x 1" x 1/2"	2	157	Fan		1
6a	Perforated Strip	1 1/2"	9	51	Flanged Plate	2 1/2" x 1 1/2"	3	161	Girder Bracket	2" x 1" x 1/2"	1
8a	Angle Girder	9 1/2"	4	51a	Flanged Plate	1 1/2" x 1"	2	163	Sleeve Piece	1 1/2"	2
9b	Angle Girder	3 1/2"	1	51b	Flanged Plate	1 1/2" x 1 1/2"	2	164	Chimney Adaptor		2
9d	Angle Girder	2 1/2"	2	51c	Flanged Plate	1" x 1 1/2"	2	186f	Driving Band	3" Light	1
10	Fishplate	1"	6	53	Flanged Plate	3 1/2" x 2 1/2"	1	188	Flexible Plate	2 1/2" x 1 1/2"	5
11	Double Bracket	1/2" x 1 1/2" x 1 1/2"	10	55a	Slotted Strip	2"	2	189	Flexible Plate	5 1/2" x 1 1/2"	2
12	Angle Bracket	1/2" x 1 1/2" x 1 1/2"	30	59	Collar		5	190	Flexible Plate	2 1/2" x 2 1/2"	4
12c	Angle Bracket Obtuse	1/2" x 1 1/2" x 1 1/2"	1	63d	Coupling Short		2	212	Rod & Strip Connector		1
15a	Axle Rod	4 1/2"	1	64	Threaded Boss		1	213c	Rod Connector Flexible		1
15b	Axle Rod	4"	1	69	Set Screw	5/32"	2	214	Semi-Circular Plate	2 1/2"	2
16b	Axle Rod	3"	2	73	Flat Plate Perforated	3" x 1 1/2"	1	215	Formed Slotted Strip		5
18b	Axle Rod	1"	1	74	Flat Plate Perforated	1 1/2" x 1 1/2"	4	221	Triangular Flex Plate	2 1/2" x 1 1/2"	2
22p	Pulley Plastic with Boss	1"	3	77	Triangular Plate	1"	2	235b	Narrow Strip	3 1/2"	1
22ap	Pulley Plastic No Boss	1"	1	80c	Threaded Rod	3"	1	235g	Narrow Strip	1 1/2"	6
23a	Pulley with Boss	1 1/2"	1	102	Single Bent Strip		2	235h	Narrow Strip	2"	5
23bp	Pulley Plastic No Boss	1 1/2"	2	103d	Flat Girder	3 1/2"	1	700	MO Motor Mk. 2		1
23c	Pulley Rubber	1 1/2"	2	103f	Flat Girder	2 1/2"	1	806b	Narrow Strip	1"	2
24b	Bush Wheel	6 Hole	2	111	Bolt	3/4"	4	812d	Narrow Obtuse Angle Brk	1/2" x 1"	4
27c	Gear	2 1/2"	3	111a	Bolt	1/2"	1		Narrow Angle Brk slotted	1/2" x 1/2"	6
37a	Nut Square		196	111c	Bolt	3/8"	9		Narrow Strip slotted	1"	5
37b	Bolt		167	111d	Bolt	1 1/8"	2		Driving Band	3 1/2"	1
38	Washer Standard		124	120dm	Shock Absorber Male Half		1	58l	Tubing Rubber ex space set		24"
38a	Plastic Spacer		25	120e	Shock Absorber Pin Mini		1		Copper Wire - 1mm (20 swg)		24"
38b	Mini Plastic Spacer		5	125	Reversed Angle Brk	1/2" x 1/2" x 1/2"	1		Battery box with switch		1

Have We Peaked?

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1 - Has the Meccano hobby peaked? Ten years ago, the late Phil Bradley (who was supremely well qualified to judge), thought that the golden age of Meccano was not the 1930's, nor even the 1950's, but the 1990s. But what has happened since?

Let us agree that the number and standard of new models being built (rather than the numbers of parts sold or the value of collections) is the true measure, and it is clearly reflected at most club meetings and exhibitions.

An recent article in the International Meccanoman shows how, through the whole history of Meccano, there have always been up and down swings, and even predicts an imminent upswing. The statistical data, however, from which all this is extrapolated was from a time when there was a constant intake of young boys to the hobby, and the average age of enthusiasts was more or less constant. This is no longer the case! (Howard Somerville).CPR

2 - Surely it depends on which peak we are measuring? As someone who does their best to be a builder when time permits, I look around now and see fantastic parts supply as long as I don't mind waiting until I can next see Dave. I can get all sorts of interesting and useful bits, and considering I like working at a relatively small scale that's genuinely useful. Would I rather have a toy store selling Meccano spares? Maybe, but they'd likely be nowhere near as comprehensive. Again, as a builder, I see fewer models made out there to gain inspiration from and fewer attendees at meetings to gain wisdom from. I understand that much of that appears to be due to a bit of a shift northwards in

Meccano building in the UK over the past 10-15 years but still, for me, it's real. If I'm the isolated modeller, working from his own inspiration and deductions, I can now amass a fantastic, varied collection for relatively low prices with a little patience.

If I'm the builder who builds to gain approval from his peers, I have fewer peers available to provide such approval.

If I'm the builder who builds to learn, I have fewer teachers and examples available - but more and better literature available from which to learn and undoubtedly higher model-building technology.

If I'm the socialite, I'm stuffed. Bluntly, we're dying off in the main and the death / retirement rate appears to exceed the adoption rate.

It's worth pointing out, though, that whenever I've introduced new people with a basic interest in technology to advanced Meccano building, jaws have hit the floor with admiration. They like the idea and are receptive. Are we past the peak? Maybe. It depends why we're here. (Greg Webb) CPR

3 - Meccano was the product of an age. Mainly our age - those of us who grew up in the UK or wherever Meccano was sold in the world. It was an age when Meccano, Hornby Trains and other Binns Road products were defined as the toys to have. Certainly it's been around a hundred years or so, but its glory days were the pre-war and immediate post-war era. Before plastic, before Lego and other imitators that led to its original demise. It has tried to rejuvenate itself with some success, but now was playing to another audience. One that was raised on television and later computers and video games. Its limited success was more
(continued on next page)

due to returning Spanners or those who were augmenting their collections. Unfortunately where I have seen Meccano marketed, at least in the US, it has not been a raging success. Fortunately that success spawned some craftsmen to augment the line with all the reproduction items currently available.

So have we peaked? In age no doubt! For every one of us thirties kids, there are precious few younger joining the hobby. Certainly we read of parents trying to help their children into the hobby, but when they mature, will the interest be there as it has been with us, all these years. So, I think we have peaked. If not peaked, peaking! Not that I envisage a glut of ten sets on eBay or boot sales, but over years hence, the main interest will have died, leaving a few young people to ponder a box of coloured metal bits, and wonder what it was, and why it was ever made. (Brian Willis, Gig Harbor, WA.) CPR

4 - I think Spanners who look back with nostalgia at the 30s, or 50s, or whatever the decade of their introduction to Meccano, and claim that as the peak, are missing an important point, which is that the "adult" hobby never really took off until the 1970s when the first Meccano boys were looking around for retirement hobbies. Of course there have been dedicated builders carrying the flag before then but the bulk of adult hobbyists are returnees who spent the several decades in between two happy childhoods doing grown-up things at the office.

Most of us chose Meccano as a hobby out of nostalgia for childhood pleasures. So that's going to come to an end. But it doesn't mean the hobby has to die. Our motives are not the only motives one might have for taking up Meccano as a hobby. There is no reason why the Meccano hobby should not be attractive in its own right as an outlet for modellers and model engineers.

I take Howard's question to be best answered in terms of the adult hobby, not Nikko's distribution network or whether kids today have any interest. And it is a serious question - are the big exhibitions seeing fewer models of spectacular quality, and so, does that mean we're past our peak?

I am not sure, I think we hang in the balance. Meccano is an excellent system for robotics but lacks a proven interface to make it simple to do. (I mean no disrespect to the Meccanisms people, but I haven't yet seen it controlling anybody else's models. If it gains widespread acceptance, then we will indeed have a proven interface. The same goes for other commercial systems.).

Certainly there could be a huge leap in the hobby if people interested in fooling around with robotics were to hook into the Meccano hobby. Like Greg, I have youngish friends who look at Meccano with some respect as a construction medium but have not yet taken the plunge. I do think we hamper this more than help it by sometimes appearing to be a crusty old bunch who despise computers and prefer to build machines from the distant past for which computer control is not only unnecessary, it is probably undesirable. I am as guilty of this as anybody, although I've now bought Michael Adler's latest Modelplan for an Arc-angle robot arm with a view to having

a look at the various issues involved.

So have we peaked or not? We may have passed 'a' peak which is the peak of the nostalgic returnee with a 1930s childhood, but then...if you had Meccano in 1954 at the age of 10, you would only be 60 years old now. Seems to me there must be quite a lot of Meccano boys out there from the 1950s who are only just reaching retirement age, not to mention my generation, under 50 but brought up on 1960s Meccano, still a popular toy then, even if sales were beginning to decline. So perhaps we're in a small trough, but I can see possibilities of an upswing again. But eventually we have to find reasons to play with Meccano that go beyond nostalgia.

The other thing we need is more publicity and the best way to get that at the moment is by using the World Wide Web and getting our web sites out there full of pictures and movie clips of models, instructions and discussions of how to approach building models and so on. (Chris Bourne, London UK.) CPR

5 - This resonates with my own limited experience. I'm a comparatively recent (about 6 years) 'returnee'. It's quite easy for visitors to see the results of my modelling activity since it sits on the floor of my study most of the time. I have yet to get a negative response - most say 'is that Meccano' - this shows that the brand recognition is still strong in adults. They also express surprise to learn that Meccano (alias Nikko) is still in business, and are very surprised to find out about the growing supply of replica/compatible parts. I think there is an untapped reservoir of interest - the problem is how to get to it.

As to children - I think that this will always be a minority interest in the face of all the competing distractions. My grandchildren are interested in the models, and have shown some interest in modelling, but this will require careful nurturing I think. One of the problems is the pressure on children's time. My grand daughter (eight years) has a huge range of additional activities on top of her school curriculum, and she works herself to exhaustion at times. However she comes here often to recharge her batteries, and I am hopeful. My grandson (three years) is for the future. To sum up I think we have a problem of perception and visibility. (Peter Finney, Liphook, Hampshire, UK.) CPR

(To be continued)

(continued from page 16)

Sheffield Meccano Guild Journal No.86 - June 2004 - 36 pages in black and white and 2 colour pages.

Pick of the articles - Jones KL77 Mobile Crane by Ken Ashton. This is an extensive modelplan and is being presented in parts. All up, there are 32 black and white photos. The model is approximately 1:12 which gives a chassis unit of 13" x 6" and the superstructure of 11" x 13". Part one consists of 2 pages of text and nine photographs.

This issue also includes a small scale twin back axle, magazine reviews, Hatfield garden maize, SMG April meeting and model report, three cylinder solenoid engine, and how to make a working crane Grab driven by differentials.

The use of email from the Spanner group is acknowledged and CPR means copyright permission has been obtained from the authors.

Storage - Here is a storage solution I recently made and posted the attached photo to spanner. Each drawer is about 8" x 5" which accommodates all the small parts. They came in banks of 4 drawers, I purchased 24 units so a total of 96 drawers. These were mounted on a home made 'lazy susan' turntable. This has proved very cost effective with the total cost being NZ\$160 or about US\$100. There is no danger of 'zinc rot' as David mentioned. I still need to get the labels done! (Daryl Anderson, NZ). CPR

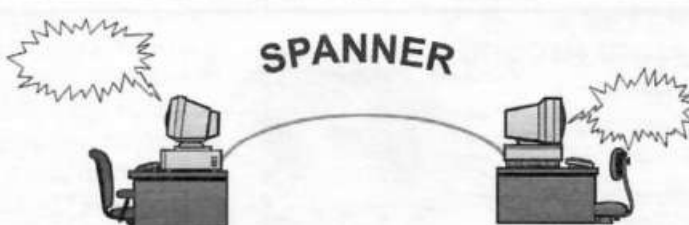


Clock, easy to build - I've recently (re)discovered Meccano, and while I'm interested in building in general, I'm particularly interested in building something with some practical utility. So, are there any clocks which are suitable for someone who's really beginning with Meccano? (Dave Ford, Bath.). CPR

Editor - The best suggestion was the gravity escapement Church Clock from Constructor Quarterly No. 49 September 2000. A striking unit for this clock is written up in Constructor Quarterly No 51 March 2001.

Editor's footnote: David advised me later - "I ignored the advice and decided to build the Arnfield mantelpiece clock anyway though ☺".

E6 Motor restoration - I have recently restored an 80 year old E6 motor. I found it in a box of bits I purchased. It was totally rusty and seized up. I have got to thank Spanner Geoff Brown for all his help in the project. It works really smoothly from 4 x 1.5v batteries, which I don't think will last all that long with the power required. Having stripped the unit completely (after a weeks soak in WD40 oil to free the bearings) I rubbed the side plates down by hand using wire wool and glass paper! with a little help with some paint-stripper. I matched the paint at Halfords motor store. It turned out that Peugeot Regency Red was perfect. I primed with Hammerite No. 1 rust beater and sprayed over with the regency red. Luckily I managed to free the connecting nuts and bolts. All coils and wires were sound except for the sleeving, which had perished. My friend the TV engineer had some authentic? 50 year old rubber sleeving covered in fabric (impossible to buy new now). There were no repro parts used, even the original brushes and springs were put back. Everything cleaned up with turpentine, vinegar and salt for the brass. Back together, six volts applied - perfect running



forward and reverse. The only part missing is the emblem that would have been on the side plate - and of course a T6 transformer (Roger Fearnside, UK). PS I now have that T6M transformer courtesy of Geoff Brown. Re-wired and working with the E6 motor. CPR

Simplicity models - After four years the Meccano Micro Models website has finally been updated. Added seven models, all new pictures, and improved layout. The new site can be found at

<<http://meccanomicromodels.demonster.net/>>. (Elex). CPR

Pick Up Magnet - I use a small high powered magnet to pick up small parts like steel nuts and bolts, or to separate brass nuts from steel ones. As the hard thing is to take apart the attracted parts from the magnet, I use a common trick that may be of interest to those who have not tried it. I wrap the magnet with a thin clear plastic sheet before using it. When the small parts are adhered to the wrapped magnet. I unwrap the plastic, disconnecting all the picked parts, making them fall in the desired bin. The cylinder powerful magnet is obtained from a scrapped loudspeaker. The small ones used in cars are of the most convenient size. After removing the paper cone metal frame, I fill the gap existent between the centre core pole and its surrounding doughnut opposite pole with epoxy glue, to avoid the gathering of undesired file dust that may short cut its magnetic field. This way I obtain a strong long lasting magnet, without sharp edges, handy to be used for instance in the job described. (Edmundo Veiga). CPR

Mike Rhoades Price List - His latest parts price list (April 2002) has been converted into Excel and can be downloaded from the MeccInv website: <www.meccinv.com>. It is also available as a MeccInv price list (for instant valuations of whole collections, or producing ready-costed order forms) and in .CSV format for import into any PC or Macintosh spreadsheet, WP or database application. Mike Rhoades also sells replica cabinets, compatible motors, literature, tools etc. If anyone requires a .PDF (Acrobat) scan of the whole brochure, please email me privately. The pricelist is the de facto "Glasses Guide" to Liverpool part values and is used by other dealers.

The two price columns give the basic cost of parts in very good, LITTLE USED condition. The first column refers to post-war RED/GREEN parts made at Binns Road, Liverpool up to 1964. The second column refers to parts produced after 1964, principally BLUE/YELLOW/ZINC PLATED but also including BLACK, SILVER PAINT, ARMY GREEN, WHITE and DARK BLUE/YELLOW. Interestingly, when comparing the current list with its predecessor (September 1999), some part/colour prices are actually lower, no doubt reflecting changes in supply and demand. (Howard Somerville <www.hsomerville.com/meccano>). CPR

Bruce's Choices From Around The World

by Bruce Neilson

Midlands Meccano Guild Bulletin No 13 - May 2004 - 24 A5 pages in colour.

As written up previously, this magazine is primarily an upmarket meeting report.

The president, the chairman, the treasurer, and the secretary each have something to say, and then into the meat of the March 2004 meeting. The models that I liked from the pictures were Tony Parmee's huge Set 10 Gantry Crane (Soon to be a MW Models modelplan), the Rolls Royce Silver Ghost from CQ 63, a Giant Block Setting Crane in 1:26 scale by Paul Brecknell, and a Panzer Tiger Tank by Sid Beckett. Models of a Gyroscope and Caterpillar D8 Tractor and side tipping trailer from the NZFMM magazine also were on show. Well done MMG.



The International Meccanoman Journal No 42 - May 2004 - 32 pages in black and white.

Pick of the articles - Little motor bikes - an exercise in two wheel transport. Take a collection of Meccano parts and see how many generic types of motorbikes you come up with. Philip Webb started and has illustrated eight (with help from son Greg).

Also included is the editorial where Adrian Williams contemplates the future of adult hobbyists in Meccano. Entries are invited for the Michael Adler Founder's prize. Rolando Piazzoli profile. Philip Webb's ideas cover - 90 degree reduction gearing, narrow worms, Meccano decimals, castle turrets, aircraft wings, lead weights, self centering turntable and grab hoist roping. Tim Robinson and his new decimal counter. 'Horvinex' 450E motorcycle (I liked the affirmation that "all my homemade parts are fully interchangeable with Meccano and so satisfy the search for engineering elegance."). Wheels go round but backwards. Suspension bridges and their mathematics. Douglas Hartree, mathematical scientist and his relationship with Meccano. The Renault F1 racing car. Meccano differential analyser at MOTAT NZ, and the Nobel prizewinners and Meccano.

Constructor Quarterly No 64 - June 2004 - 56 pages all in colour.

Pick of the articles - The world of Meccanographs has been advanced by Colin Cohen who has developed a variation which draws eccentrics. This is a groundbreaking new concept in design and practical application. What is all about? CQ editorial comment - There are straight line patterns like a wallpaper frieze, and closed circular symmetry with a rotating table and a moving arm, and now closed circular patterns which are non-symmetrical in ellipses, triangles with round corners, lop sided circles and spirals. Future Meccanograph models are going to be interesting.

Also included in this issue are - Robot crane "Pantagruel", the successor to "Gargantua". This crane incorporates two turntables with potentiometers. Alvis Stalwart six wheel vehicle that won Skegex 2003, radio controlled with nine servos. Meccano tank (19" long and 5kg in weight) with toy radio and Meccano infrared controls. Peter the

perpendicular pedaller transformed into the horizontal Rota Kreismann. Primus Engineering special set - the Locomotive outfit. Buy a set of 000 Meccano cardboard parts and Bernard Perier has given you a series of brilliant models in CQ to tempt the taste buds. John Matthews - profile of a model building competition place getter from 1930 to 1960 who featured regularly in the Meccano Magazine. Worm-Worm using a worm as a powered wheel. F1 Renault grand prix racing car built from your existing parts, motorised and radio controlled. Chattering dentures and strip rollers and to finish, Bill and Ben the track car men.

Modelplan 149 - ArcAngle Industrial Robot by Michael Adler - March 2004 - 36 pages.

The plan contains 17 colour pictures, 11 pages of text, 14 pages of Isomec drawings and a 2 page parts list. The model is approximately a 13" cube and requires additional items of 6v geared motors, potentiometers, DB 25 connectors and a 20 position connector block. Equipment needed will be soldering, audible continuity tester and computer interface and software.

"This robot has no exact prototype, though there are many examples of a similar configuration. It has been designed to provide a stable platform for the manipulation of tools, parts or objects just like a full size machine on the factory floor. It is classified as a cylindrical robot because its work envelope or the area, which its gripper or end effector can reach, is cylindrical in shape. A horizontal arm can be extended and retracted from the main body through a rack and pinion mechanism, and a similar mechanism controls a forearm, which is vertically arranged. It has a roller bearing and slewing mechanism, and a hand or gripper, which is described in two versions, one for a gear motor and another for a servo-motor.

Control - although this robot can be controlled using switches for each motor, it has been designed specifically in order to be controlled by a computer. The key components of such a system are the interface between the computer and the robot and the program itself, which will instruct each motor for correct operation. To build a machine which almost seems to have a mind of its own is a fascinating achievement. The first requirement is to build a mechanically sound with reliable components, which can respond to computer control."

For those Meccanomen who have invested in a MotorVator controller from Meccanisms (alias Andrew Wells), this is an ideal model to cut your teeth on, so get to it.

Meccano and Erector Club Newsletter - June 2004 - 12 pages in black and white.

Pick of the articles - Railroad lift bridge. 48" long, 59" high, a lifting span of 30" then add another 72" for the on ramps by Gerry Klei. If you think Meccano is expensive in NZ, have a thought for the builder of this model who spent US\$4000 (NZ\$6000) for 1500 parts and 3200 nuts and bolts. One picture and half a page of text.

This issue also includes building instructions for a Gilbert Erector Giant Power Plant from the 10 1/2 Erector set, Lloyd Spackman's Jeep and do you possess a 'boxed' set of four P/N 187b 4 1/4" Plastic Road Wheels? It is a valuable item.

(continued on page 14)

WATCH THOSE LOCKNUTS:

In two of the Future Masters sets, (and probably in others), moveable joints are held by nylon insert locknuts. If the assembly instructions are followed closely, the joints are very sloppy. That can easily be fixed by adding washers. In one case I added three and the result was a tight but easily moveable joint.

FOR SALE:

Greg Rahn in Calgary, Canada, is asking for tenders for his vast Meccano collection as one lot. His bottom asking price is NZ\$60,000.

**"Model Engineer" (ME) REVIEW OF "Constructor Quarterly" (CQ):**

"Model Engineer" No. 4212 carried a half-page review of "Constructor Quarterly" magazine, written by Kelvin Barber. Following a bit of Meccano history, Mr. Barber said he was impressed by "the most amazing Meccano models you are ever likely to see", in CQ He ended by saying that if you take your Meccano seriously he can whole heartedly recommend this quality publication.

HELPFUL MECCANO FRANCE:

Remember the days when Meccano Ltd. in Liverpool would replace damaged parts without question or delay?? There is somewhere in NZ. a complete Set 10 which Binns Road sent out as replacement for a corroded one. Meccano France is also being helpful these days. In one of my new sets was a 2" Strip which was badly chipped at one end. I sent it back to Calais with a covering letter. A fortnight later a replacement strip arrived inside a very apologetic letter signed by M. Jean-Pierre Duquenoy in the Service Consommateurs Department.

CALAIS PARTS NUMBERS:

The Calais price list for spare parts has three sets of numbers for each part - the original Binns Road one which we all know and love; the 'new' ones recently introduced and (for ordering) a twelve digit number.

WRONG NUMBER:

Dave Taylor tells us on "Spanner" that the twelve digit numbers can be a problem. Instead of sending him 100 x 3/4" Bolts, Calais sent 100 x 7 1/2" Circular Strips. Dave returned them in a hurry as they added nearly GBP1000 to his account.

MECCANO IN TV SHOWS:

In "Last of the Summer Wine", Clegg admitted he had trouble putting his Meccano together. And in "The Thin Blue Line" (not seen in NZ.), Inspector Fowler (Rowan Atkinson) compared the woes of today's youth with his happy childhood playing with his Meccano. (Brian Willis on "Spanner").

A REFERENCE LIBRARY:

For a newcomer to Meccano to build up a reference library the first choices of "Spanners" were Bert Love's publications - "Meccano Constructors' Guide", "Model Building in Meccano" and "Meccano Parts and how to use them".

A ROAD TRAIN:

Dave Bradley has built an Australian Road Train 10 feet long and only 6 1/2 inches wide. It comprises an articulated truck and three trailers. He has plans to build a bigger one. Wider? Or longer?

THE FIRST "SUPERMODEL":

"This phrase actually dates back to the Thirties when it described the huge Meccano structures which could only be made with the fabulously expensive No. 10 Set". (John Ward in the 'Daily Mail', 20 May 2004) (Thanks to John Pond for this UK item).

DESIGN SERIES P/N 90:

Mike Holland (Australia) reports on "Spanner" that the new P/N 90 in the Design Starter sets does not have the same hole spacing as 'normal' Meccano P/N 90. The middle section of the Design one seems to be smaller.

OUR 'PIRATED' NAME:

The clothing retailer which set up in Hamilton a few years ago using 'Meccano' as its shop name has expanded to several other cities. At the time, David Wall visited the Hamilton shop to discuss their use of 'our' name, but to no avail. They advertised in 'Kapimana News' on July 13 for staff for their new shop in Porirua.

ADULTS GO FOR MODEL TRAINS:

Model rail maker, Hornby, says 75% of its sales are to adults rather than to children. ('The Independent' article on "Baby Boomers won't grow up", 11 July 2004)

SPRAY PAINT FOR MECCANO:

Rick Vane (NZ) says on "Spanner" that Supercheap Autos who also sell automotive spares and hardware have cans of spray paint for NZ\$2. Their 'Bright Red' and 'Brunswick Green' are quite close to Meccano dark red and dark green.

SUPERMODELS BOOK SELLS:

Hornby Companion Series (HCS) Vol. 2, Geoff Wright's Supermodels book was sold on eBay in June for GBP112.

A NAME FOR GST:

Colin Hoare says on "Spanner" that in Canada this tax is known as the 'Gouging and Screwing Tax'.

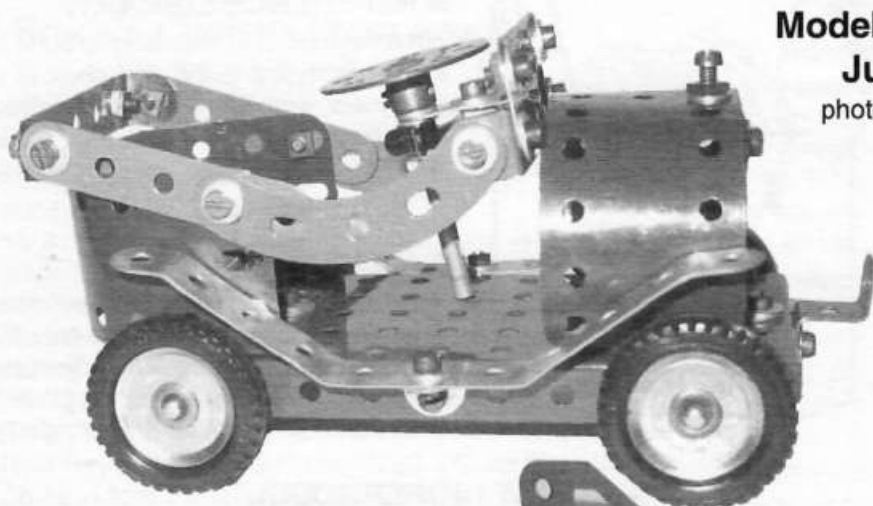
MECCANO FRANCE:

Meccano France has a new web site (in French). It is <http://www.meccano.fr> The site includes some Meccano history from 'Mechanics Made Easy' to the present day. The set details are the same as in their brochures. (Remi Lanne on "Spanner").

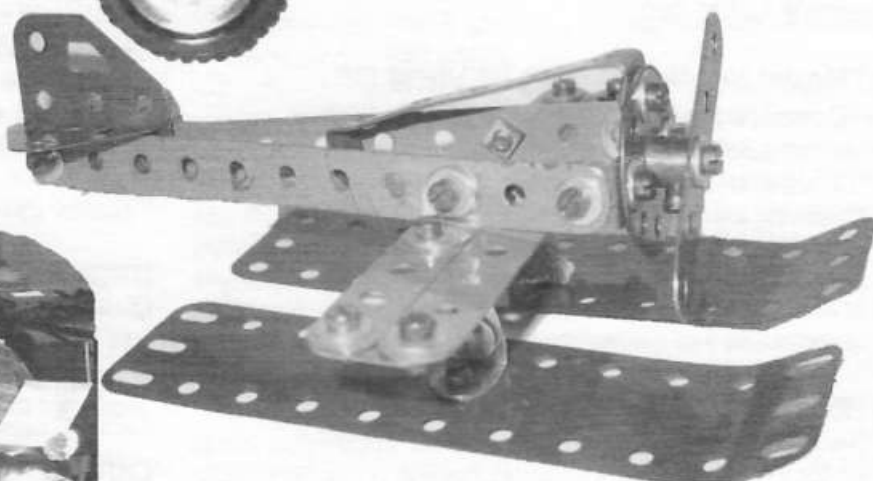
Models from the MWT June meeting.

photos by Bruce Neilson

*Don Blakeborough
getting his facts right.*



Lou Nichols' Kiddy car



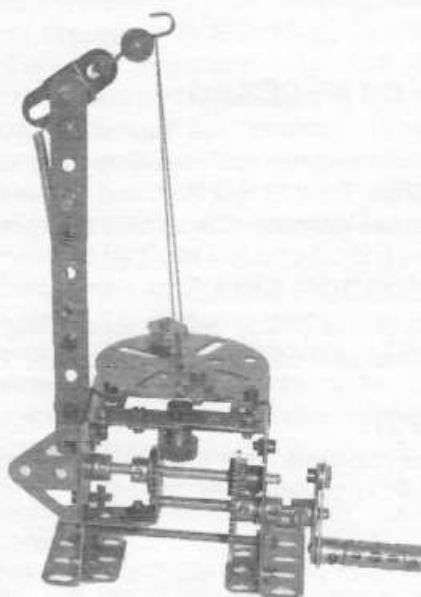
Lou Nichols' 1950s seaplane



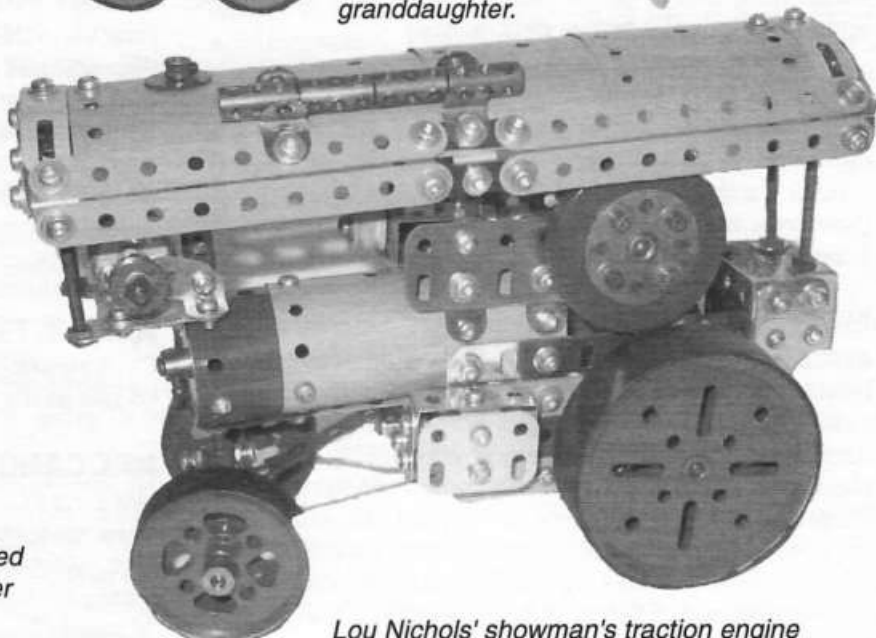
*Lou Nichols, Hugh Ramage and John Ince paying
close attention to the matter being discussed.*



*This Junior grader
was built by Don
Blakeborough's
granddaughter.*



*Hugh Ramage used some of the parts listed
on the next page to build this thread twister
as his entry to The Challenge.*



Lou Nichols' showman's traction engine



The early Meccano efforts (and some knobbly knees) of members were revealed at the antique section of our 12 June meeting. The topic was 'the earliest

Christchurch, and a Tower Crane.

Simon Moody – A Meccanisms computerised control box with four motors attached.

Chris Morton – A boxed Meccano Steam Engine.

Bruce Neilson – A very small electric motor salvaged from a pager.

Lou Nichols – Showman's Engine from a Keith Cameron design, Seaplane from the 1950s. and a Kiddy car.

Bob Prescott – A redesign of the 'Monkey on Stick'.

Robin Rye – 1:16 scale model Ertel International Harvester tractor.

Lloyd Spackman – Mad Motorbike from 4505 set, Kientz single cylinder oscillating Steam Engine of 1860.

Paul Vodanovitch – Tight rope walker from a 1 set of 1928, Meccanographs from 1919 and 1928, and a 1920s No. 4 manual.

The evening concluded with a large auction of parts and literature and the fish and chip supper

photograph members could find of themselves with a Meccano model'. The subject drew a reasonable response of teenage pictures and some early adults with lots of hair but my overall impression was that our parents had not really captured those moments of triumph when a Meccano model had been completed.

Members also presented the following:

Daryl Anderson – Juneero Engineering set in complete order, and out of the modern bane of defunct CDRom hardware comes three very nice small electric motors (and gears). These can even be back driven to make operating generators.

Don Blakeborough – Four types of Aeroplane Constructor wings from 1931 to 1936 and from his granddaughter, a Junior grader.

Wayne Blakely – A 1936 Meccano Speedboat (Viking), and a Kubel Wagon from the Mogul series (see Meccano Engineer magazine March 1975).

Selwyn Bluett – Four stroke engine with the crankshaft balanced on electronic scales at work place.

John Freer – Railway Crane now extended to include turntable and barrel.

Bruce Geange – Tractor and three furrow plough using some 1930 cardboard parts, four wheel motorbike and trailer, Rolls Royce Silver Ghost with Crazy Inventor spoked wheels, a rebuild of Selwyn Bluett's digger, and from the model engineering room, a Stirling Hot Air engine tractor complete with a box of tools and bottle jack. This model won a rare Merit Award at a recent National Model Engineering Show.

John Ince - A selection of parts from Peter Muff of

The challenge for the meeting is described at the bottom of this page. An impressive show of six original models was presented and some are pictured on pages 18 and 24.

Daryl Anderson – Meccanograph.

Lou Nichols – Movement in two planes.

Hugh Ramage – Twister.

Robin Rye – Caterpillar Challenger Tractor

Lloyd Spackman – Horizontal Steam Engine.

Alistair Tong – Taranaki Hedge Cutter.

Alistair's written notes had this to say "This hedge cutter is loosely based on Butler's machine which used to cut boxthorn on our family farm. The unit was based in Inglewood and good film footage is currently shown at Pukeariki Museum in New Plymouth.

The model has front wheel steering, a driver seat, a pedal on the left for forward and reverse, controls on the right representing throttle and clutch for blade, towing point, tow rope. The engine air induction is on the left rear with cyclonic filter. The exhaust is right rear into the dust and debris from the cutting blade. Turning the handle causes the blade to rotate. The flails were left long to touch the ground and produce a realistic cutting sound."

The Challenge -

The model must be made from the following list of parts borrowed from the South East London Meccano Club.

Pt No	Description	Size	Qty	Pt No	Description	Size	Qty	Pt No	Description	Size	Qty
5	Perforated Strip	2 1/2"	4	29	Contrate Wheel	3/4"	1	103g	Flat Girder	2"	1
6a	Perforated Strip	1 1/2"	2	35	Spring Clip		5	109	Face Plate		1
9d	Angle Girder	2 1/2"	4	37	Nut and Bolt		NL	111	Bolt	3/4"	NL
10	Fishplate	1"	2	38	Washer		NL	115a	Threaded Pin	1 3/8"	1
11	Double Bracket	1/2" x 1/2" x 1/2"	1	40	Hank of Cord		1	126	Trunnion		1
12	Angle Bracket	1/2" x 1/2"	3	43	Tension Spring		1	136a	Handrail Coupling		2
12b	Angle Bracket	1 x 1/2"	1	48	Double Angle Strip	1/2" x 1 1/2" x 1 1/2"	1	155	Rubber Ring	1"	2
16	Axle Rod	3 1/2"	1	48a	Double Angle Strip	1/2" x 2 1/2" x 1 1/2"	1	186	Driving Band		NL
16a	Axle Rod	2 1/2"	1	51	Flanged Plate	2 1/2" x 1 1/2"	2	188	Flexible Plate	2 1/2" x 1 1/2"	3
17	Axle Rod	2"	1	59	Collar		4	or 194	Plastic Plate	2 1/2" x 1 1/2"	3
18a	Axle Rod	1 1/2"	1	73	Flat Plate	3" x 1 1/2"	1	212a	Rod & Strip Connector		2
22a	Pulley No Boss	1"	2	74	Flat Plate Perforated	1 1/2" x 1 1/2"	2	452	Tyre for 1/2" Pulley		2
23	Pulley with Boss	1 1/2"	2	57b	Hook		1				
24	Bush Wheel	8 Hole	1	62	Crank		1				
24c	Wheel Disc	6 Hole	1	63	Coupling		1				
26	Pinion	1/2"	2	69	Set Screw		NL				
27a	Gear Wheel	1 1/2"	1	80c	Threaded Rod	3"	1				

You can see some of the models produced by MWT Club members at the June meeting in response to this challenge on pages 18 and 24.

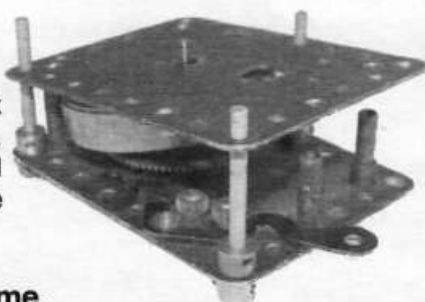
"NL" means that you may use as many as you require.

Meccano Dragster

by Brian Hickson.

Preparation.

Separate clockwork motor side plates, remove gear train and governor, reassemble side plates.

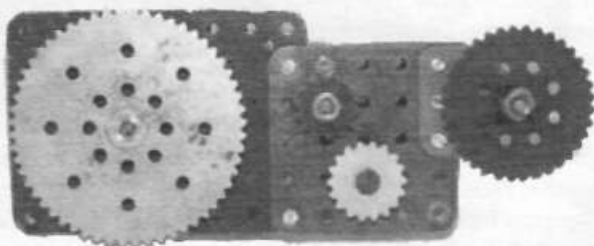


Transmission Frame.

Bolt $2\frac{1}{2}$ " x $2\frac{1}{2}$ " Plates to motor *Dismantling of motor.* plates at end away from spring, use Washers between plates to prevent fouling of motor side plate screws. Before tightening Bolts, fit two $1\frac{1}{2}$ " Rods and secure with Spring Clips as shown. Fit $1\frac{1}{8}$ " Bolts as shown. Bolt Flat Trunnions to rear of Plates, (Use a couple of Axles in top and bottom holes, tighten centre Bolts, remove one Axle, fit Bolts to those holes, etc, etc, this will ensure that Axle is mounted true for correct Sprocket alignment.)



$1\frac{1}{2}$ " axles as locating dowels.



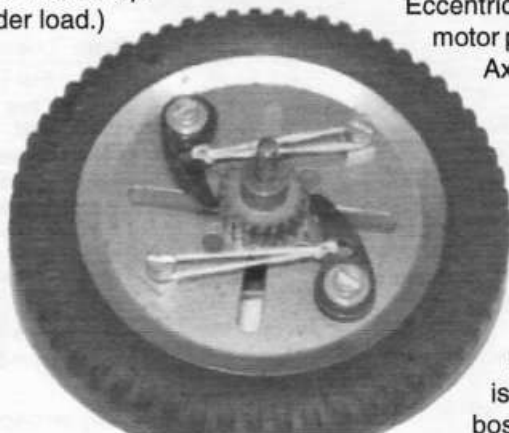
Transmission frame and sprocket arrangement LH side.

Transmission.

Fit 3" Chain Sprocket to motor winding shaft, (it may be necessary to chamfer the corners of the winding shaft to fit the Sprocket) fit Pivot Bolt and 1" Sprocket. Assemble $\frac{3}{4}$ " Sprocket, 2" axle and Ratchet wheel, fit 2" rear Axle and 2" Sprocket. Use Washers as necessary to align $\frac{3}{4}$ " Sprocket to 1" and 2" Sprockets, now align 3" Sprocket. (use a straight edge, accuracy here is critical.) Fit Chain to suit. (Note that there should be no slack in the Chain when fitted, slack will develop when the motor is wound up due to frame distortion under load.)

Rear Wheel.

Use four $\frac{3}{8}$ " Bolts, assemble two Pawl pivots in order; Washer, Pawl, Washer, Nut, fit to 3" Pulley with tyre fitted, secure with Nut other side of Pulley. The remaining two Bolts are fitted as posts to mount light rubber bands which are also secured to the Pawls. (Note that the tension should be kept



Rear wheel with pawl arrangement right hand side.

fairly light to avoid excessive wear of the Ratchet wheel on overrun.) Fit 2" Axle shaft through 2" Sprocket, Left Hand Trunnion, 3" Pulley boss, Ratchet wheel, two Washers, Right Hand Trunnion and Collar, secure Sprocket, Ratchet wheel and Collar to Axle, check that rear wheel is free running and lubricate axle assembly.

Stress Girder.

Bolt $7\frac{1}{2}$ " Girder to motor side plate and Right Hand $2\frac{1}{2}$ " x $2\frac{1}{2}$ " Plate, note that no Washer is fitted between Girder and motor plate - the 'bending' effect of Chain tension when the motor wound is offset by the pre-stressing of the Girder, thus preventing significant distortion of the frame.

Over Centre Stop.

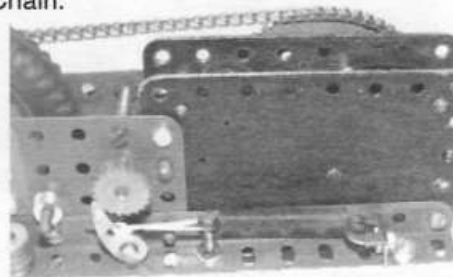
At the front of the Girder fit two Angle Brackets as shown, bolting to outer end of Girder slotted hole.

Counter Weight.

At rear of stress Girder bolt sixteen $2\frac{1}{2}$ " x $\frac{1}{2}$ " Strips overlapped four holes to Girder to counter balance weight of Sprockets and Chain.

Spring Post.

Fit $\frac{3}{4}$ " Bolt to 7th slot from front of Girder, secure at inner end of slot.

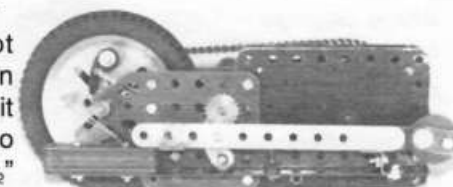


Pawl (engaged), spring post and over centre stop bracket.

Motor

Control.

Fit Slider piece spaced with four Washers to Pivot Bolt mounted in $2\frac{1}{2}$ " x $2\frac{1}{2}$ " Plate, it should be free to rotate. Attach $5\frac{1}{2}$ " Strip to single throw Eccentric arm, use $\frac{5}{8}$ " Bolt in hole closest to Eccentric, fit $\frac{3}{8}$ " Bolt in eighth hole from front of Strip. Fit $2\frac{3}{8}$ " radius $2\frac{1}{2}$ " Curved Strip to Eccentric, use $\frac{3}{8}$ " Bolt and locknut slightly loose (to avoid jamming Eccentric), fit $1\frac{1}{8}$ " Pivot Bolt (a Simon Moody Part) through lever and Eccentric boss, space with three Washers and secure to motor plate. Fit small rubber band to bossed Pawl, fit $1\frac{1}{2}$ "



RH side. Motor control rod. Lever also counterweight arrangement.

Axle to Pawl, fit to frame and secure with Collar inside frame plate. Attach rubber band to spring post, attach Meccano Tension Spring (or equivalent) to spring post and $\frac{5}{8}$ " Bolt at front of $5\frac{1}{2}$ " Strip. Please refer to Fig. G.

Chassis Rails.

Attach $12\frac{1}{2}$ " Strips to lower edge of motor plates, space with Washers. (Except for second hole from rear of Right Hand rail where a $\frac{3}{8}$ " Bolt is used to pass through the motor reversing lever boss). Connect front of rails with a Double Bent Strip, attach wing, a $2\frac{1}{2}$ " x $1\frac{1}{2}$ " Flexible Plate to the Bent Strip, tilt to about 45 degrees and secure to rails. Fit $3\frac{1}{2}$ "

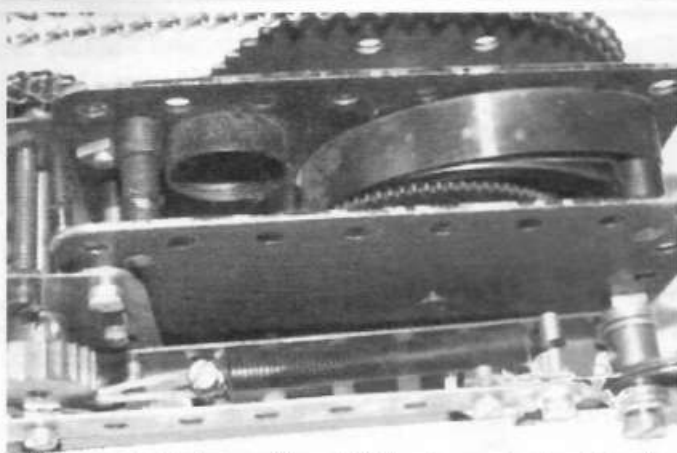


Figure G: Spring and band fitting for motor lock Pawl.

Axle to second holes in Strips, locate with Collars and fit wheels; 1" Pulleys with thin tyres. Please refer to Figs. H and I.



Underside of front Axle and wing.

Sprocket, ten turns is a full wind of motor with standard spring. Place dragster on start line, hold rear wheel down firmly and apply slight rearward pressure to unload motor lock Pawl, rotate control lever

Operation.

Rotate control lever forward to engage motor lock Pawl with Ratchet wheel, rotate rear wheel backwards to wind motor. Observe number of turns of 3"

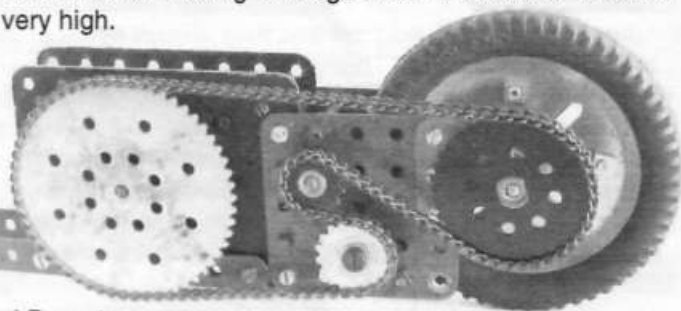
backwards to disengage Pawl, release wheel and it is gone!

Notes.

With gearing as shown, torque available at rear wheel is sufficient to generate wheel spin on carpet or concrete for about 600 to 700 centimetres, at this point the

Figure H: Chassis rail mounting and motor lock Pawl shaft mounting.

motor is completely unwound and the machine freewheels until it hits something, hopefully a strategically placed cushion! Elapsed time on a three metre strip is somewhat less than one second, terminal speed exceeds 20 kph. Fitting a 1" rear Sprocket and running on a 10 metre strip with a hard, smooth surface should (by my guesstimation) see an elapsed time of around 2 seconds and a terminal speed in excess of 45 kph. All bearings, etc. should be well lubricated as bearing loadings under a full motor wind are very high.



The Left Hand side of the completed Dragster.



The Right Hand side of the completed Dragster.

Ed. The photos in this article were provided by Brian Hickson except for the two of the completed model which were taken by Bruce Neilson at Motuoapa last March where this contest was held. Needless to say, the Hickson rocket was a clear winner in the open section - ie "mutilated" Meccano. More about the contest in the April 2004 issue.

Parts list

Pt No	Description	Total	Pt No	Description	Qty	Pt No	Description	Qty
1	12 1/2" Strip	2	43	Tension Spring	1	126a	Flat Trunnion	2
2	5 1/2" Strip	1	45	Double Bent Strip	1	130a	Eccentric single throw	1
5	2 1/2" Strip	16	50	Slide Piece	1	142b	Rubber Tyre 3"	1
8b	7 1/2" Angle Girder	1	59	Collar	4	147a	Pawl	1
12	1 1/2" Angle Bracket	2	72	2 1/2" X 2 1/2" Flat Plate	2	147b	Pivot Bolt	2
16	3 1/2" Axle Rod	1	90	2 1/2" Curved Strip	1	147c	Pawl without boss	2
17	2" Axle Rod	2	94	Sprocket Chain	1	148	Ratchet Wheel	2
18a	1 1/2" Axle Rod	3	95	Sprocket Wheel 2"	1	155	Rubber Ring 1"	2
19b	3" Pulley Wheel	1	95b	Sprocket Wheel 3"	1	188	Flex. Plate, 2 1/2" X 1 1/2"	1
22	1" Pulley Wheel	2	96	Sprocket Wheel 1"	1	-	Pivot Bolt 1 1/8" (Simon Moody)	1
35	Spring Clip	4	96a	Sprocket Wheel 3/4"	1	-	Bolt 5/8" (Hardware store)	1
37a	Nut	49	111	Bolt 3/4"	3	-	Rubber band, small, (Stationary store)	3
37b	Bolt 7/32"	24	111c	Bolt 3/8"	7			
38	Washer 3/8"	32	111d	Bolt 1 1/8"	2			

As I write this month's E-Bay column it is wet but not windy outside, a typical winter's day. We are in the middle of lambing at the present moment as things are getting more hectic. Hope you enjoyed my last offerings re how the auction systems work and how to get started. This month its back to the auctions themselves. I personally think that items on eBay are a little bit cheaper in our winter time due to the top half of the world being in summer and having other things to do.

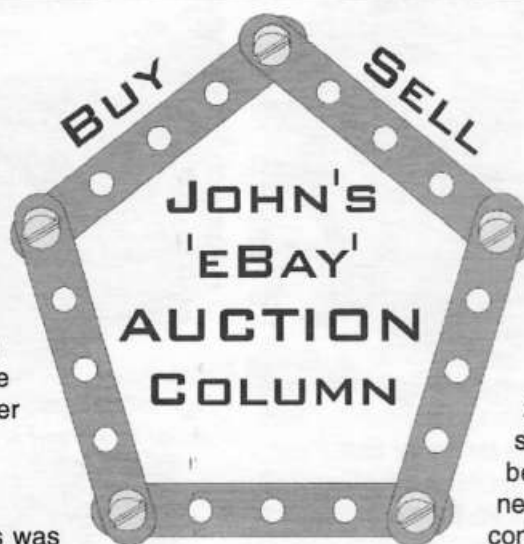
In no particular order let us look at: Dinky Toys No 061 Ford Prefect. This was my first car I owned and to see a Dinky model of it brought back lots of memories. Regarding this model the car itself is in mint condition and the box has been slightly crushed and some end flaps are missing. Still very nice and sold for approx. NZ\$100 after 10 bids. Can not remember what I paid for mine!!

Next up we have a "Meccano Shop Sign". I have featured other shop signs in the past and they always seem to sell well. The seller says "This is a free standing cardboard Meccano shop display board; these were given to shops to enhance display to prospective customers. This one has never been used and is in mint condition." No height given but shows a boy with the Eiffel Tower-colours yellow, red, blue and green. This sign sold for approx. NZ\$300. Would look good in your Meccano study.

Now for an item sold by a NZ eBay. These are Hornby Price labels - quite rare. A total of six in all and they measure 3" x 1 1/4" (76 x 32 mm). Realised approx. NZ\$100 or \$16 each.

Let's move on to a 1934 Meccano Lighting Set. A complete set including instructions and guarantee slip. Box looks a bit worn but complete. A rare item and sold accordingly at approx. NZ \$630.

This next item always makes a good Meccano model to build-Dinky No 32E Fire Truck. A very nice looking model in red -in new condition with excellent Box. Made by the



French Meccano Factory and sold for NZ\$750 after 17 Bids.

The last four items are Meccano:

1 - A Grey Digger Bucket boxed. In original enamelled grey finish with nickel plated sliding lever in very nice condition. Box showing a bit of wear. Realised NZ\$125 which seems a reasonable buy.

2 - 1979 Meccanoids Deep Space set (mint in box). This set has never been used and although they were never a big seller in it's time it does contain some interesting pieces. Sold for NZ\$81.

3 - Meccano Boxed Set C. Never opened. These sets are not all that common and came with a handy range of parts. These sets were produced around 1983 and so are getting on to 20 years old. A collectible item and NZ\$60 was the sale price.

4 - To finish with a very nice ,very old set. It is a Meccano 1908 Mechanics made Easy Set No 1. The seller explains it as such "There was only ever one short production/printing run of this series of outfits and Instruction Manuals which took place in 1908. In comparison with 'Mechanics Made Easy' production, that had lasted for six years, any outfit in this series, particularly retaining the Instruction Manual



would undoubtedly comprise one of the rarest items in any Meccano collection. The box is in very sound condition, including the glass lid for the 'Small Parts' section. However, as may be observed the lid (sleeve) does have a few scuffs and scratches etc. The contents are very substantially complete, parts missing are: 1 x No. 1, 2 x No. 2, 3 x No. 5, 1 x Wood Screw. Please note, the Screwdriver is definitely from a later period, the correct one should be a wooden handle pattern as per the MME series. Otherwise all the parts are authentic for the period". Would be very nice to own but my bank balance did not stretch to NZ\$2500.

Well that's all folks except I had an e-mail from Vern Ellis re the query in an earlier eBay column about the Buz motor in the Buz No 9 set. He states "that it has thick cardboard sides, 3/4 the size of a E15R motor. It stands upright and is used this way in most models. It is a lot lighter than the Meccano motor." Thanks Vern and all feed back is welcome.

John Hansen, email <jc.hansen@ihug.co.nz>.



New Zealand Club Diary 2004

Auckland Meccano Club.

Contact - David Wall - Ph 09 426 1965.

Meetings at 2 pm on second Saturday every third month.
2004 - 13 November.

MWT Meccano Club.

Contact - John Hansen - Ph 06 325 8211.

Meetings at 2pm on second Saturday every second month
at St. Luke's Church Hall, cnr. Cornfoot and Manuka Streets,
Wanganui.

2004 - 9 October, ?? Xmas dinner.

Wellington Meccano Club.

Contact - Lou Nichols Ph 04 973 6177.

Meetings at 7.30 pm on first Friday every second month at
?? (contact Lou to get place of meeting).

2004 - 1 October, 3 December.

Christchurch Meccano Club.

Contact - Graeme O'Neill Ph 03 322 7456.

Meetings at 7.30 pm on first Friday every month (except
January) at St John's Hall, cnr St John St. and Ferry Rd.,
Woolston, Christchurch.

2004 - 3 September, 1 October, 5 November, 3 December.

Additional Meccano Contacts

Hamilton - Don McClelland Ph 07 847 4503.

Hawera - Daryl Anderson Ph 06 278 7666.

Kapiti Coast - Bob Prescott Ph 04 905 2963.

Napier - Trevor Adam Ph 06 843 4837.

Palmerston Nth - Bruce Geange Ph 06 357 0566.

Wanganui - Tom Pittams Ph 06 345 9099.

Internet sites

International Society of Meccanomen (ISM)
<www.internationalmeccanomen.org.uk>.

Meccano Webring <www.meccanoweb.com/meccring>.

CONVENTION 2005

by Peter Hancock.

REMEMBER as you read this article that the **CONVENTION 2005** is less than eight months from being a reality! How time runs away!

The team is sure that you have highlighted these most important dates on your 2005 calendar. The event starts midday Easter Friday, March 25. The team is eagerly looking forward to viewing the wonderful models and creations that every one of you is busily applying your spare time to, for this wonderful event.

Be ready to compete in the various competitions that awards will be made for. If in doubt as to what competitions are open at **Convention 2005**, please review the past issues of this magazine to acquaint you self with what is on offer, the conditions, and rules that apply to each.

Friday 12.00 noon through to 7.30pm is time for meeting and greeting both old and new friends and of course the all-important setting up of individual displays. Venue opens at 8.00am Saturday 26 with limited time allocated for final set up and model tinkering and tweaking. From 9.30am,

Buy, Sell, Auction, & Exchange.

Advertisements in this section are free.

First insertion will be printed in full.

Subsequent identical insertions (max. one) may be abbreviated to fit space available.

For Sale - Meccano Parts and Sets

MeccParts.com supply all current parts and sets at competitive prices. See <www.meccparts.com>, fax to 0800 MECCANO, write to P O Box 26179 Epsom Auckland 1003 or call Andrew or Vivien Wells on 09 523 4447 anytime.

12v Geared Motors - MeccParts has a new shipment due in early August of the very popular 12V geared motors, in a wider range of rated speeds. All of the following will be available: 17rpm, 40rpm, 115rpm, 180rpm, 240rpm, 320rpm, 470rpm, 720rpm. We already have a number of back orders, so get in quick. We expect there to be a slight price rise with this next shipment, but we will honour the existing price on all back orders.

Renault F1 Car Kit - Meccano have finally announced the general release of the Renault F1 car kit, and we are expecting delivery in late August. Recommended retail price will be \$350, but MeccParts will have a twenty sets only for supply at \$300 plus shipping at cost.

For Sale - Meccano Supplies.

New Design series sets. 2 Helicopter, 3 Motorbike and 4 Car are now available. Discounted by 15% for NZFMM members. Special offer for this issue of the magazine is Set 0507 Special Edition Train set, \$200 post free.

Contact Wayne Blakely,

Meccano Supplies, Patikipapa Road, RD 1, Marton.

Phone 06 327 6184, Fax 06 327 4184, New email address <info@meccanosupplies.co.nz>.

For Sale - Exacto Range.

To order Exacto parts, contact Wayne Blakely,

Meccano Supplies, Patikipapa Road, RD 1, Marton.

Phone 06 327 6184, Fax 06 327 4184,

New email address <info@meccanosupplies.co.nz>

For Sale - Meccano Set Range.

I wanted to let you, and the general Meccano community in New Zealand, know that we have just posted details of the latest Special Edition sets from Meccano on our website, <www.outtoplay.co.nz/MeccanoIndex.htm>.

Wanted to Buy

P91 Caterpillar Track Links.

Contact Peter During, Flat 9/5 Boston Place, North Fitzroy 3068, Melbourne, Victoria, Australia.

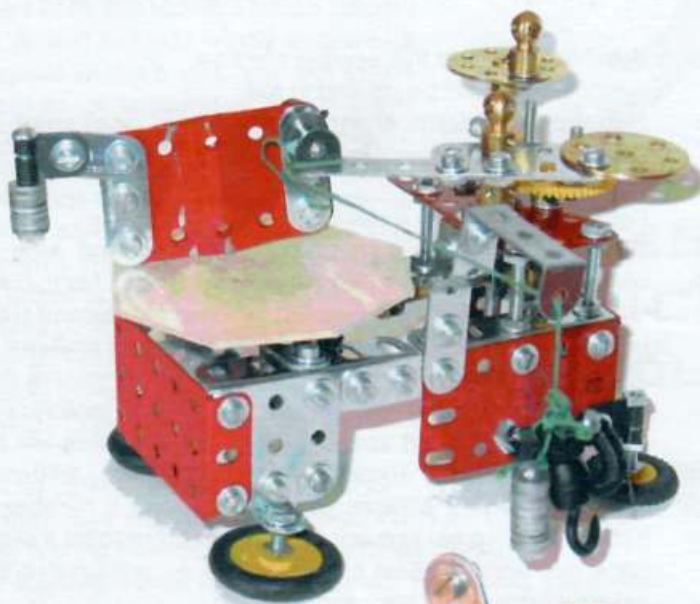
each modeller will be asked to speak (brag) about their display. The venue will open to the public for viewing at 1.00pm through 4.30pm Saturday and from 9.30am until 3.30pm Sunday 27.

The all important Convention Dinner and shindig will begin at 7.00pm on Saturday evening at a special venue.

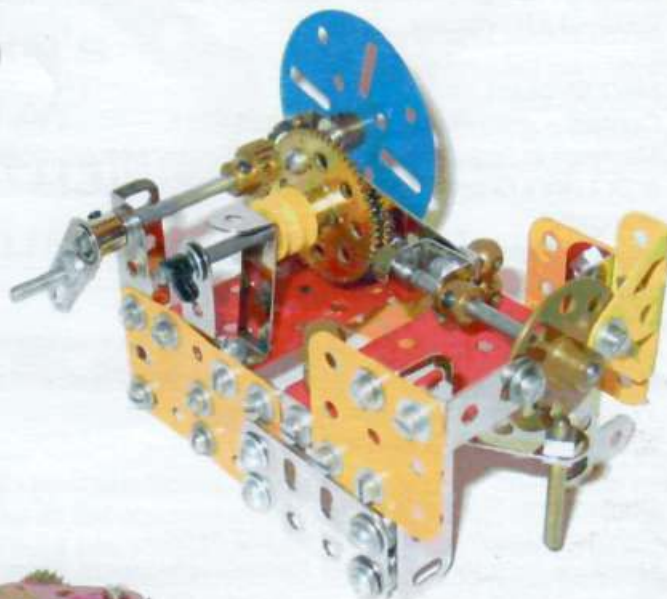
A "**CONVENTION 2005**" pack including accommodation information will be included as an insert in the October edition of this magazine.

The MWT June Challenge

These are some of the models produced. The list of parts available for the challenge is at the bottom of page 21.

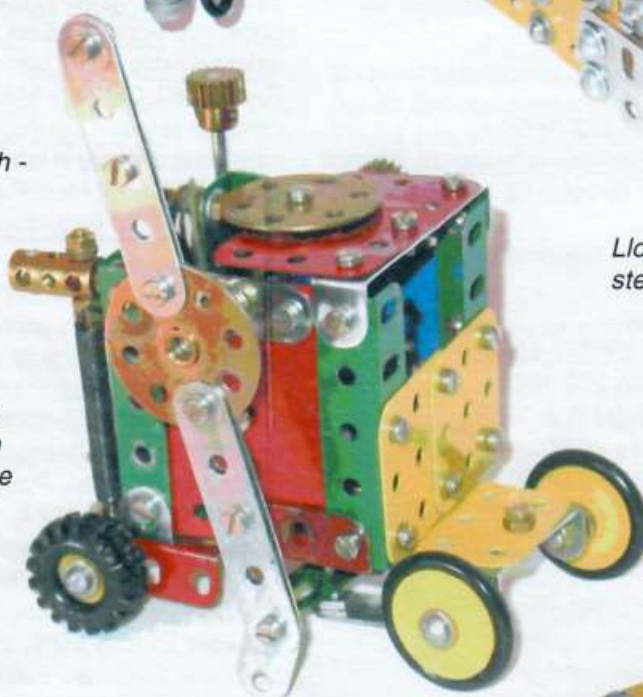


Daryl Anderson produced the world's smallest Meccanograph - and it does nice little patterns.



Lloyd Spackman built a nice little steam engine.

Alistair Tong produced a hedge cutting machine which made an appropriate clipping noise as the blades turned.



Robin Rye showed us a very realistic crawler tractor.



Lou Nichols made this machine which demonstrates rotation in two planes.

