

DELTA-X, DELTAX, D-180, ET AL In 3/42 Don Redmond noted that the parts shown in MCS for D-180 look identical to those of DELTA-X, [and their PNs correspond], but that similar parts he owned had a hole pitch of 14.0mm against the 14.2 in MCS for DELTA-X and the 12.7 for D-180. Soon after Keith Sketchley kindly sent a D-40 Set from Canada, plus a selection of kindred parts. All with very minor exceptions looked like those in MCS and all had a pitch of 14.0mm. Then recently Don sent notes on some parts he had found which were definitely DELTA-X and had 14.0mm spacing.



So it looked as if both systems were from the same maker and the D-40 box (above) added to this notion. It's all in Japanese except for 'PAT. P.', and 'ISO' on the side, but a friend of my daughter who's a professional translator, very kindly came up with the English equivalent. The 3 lines of text at the top left read 'Epoch Company's | DELTAX | Steel Construction Kit'. Elsewhere is a Tokyo address for Epoch Co. Ltd., and a list of the other sets in the series: D-80, D-100, D-150, D-200, D-300, D-400, D-500. There's also a panel on the back of the box which reads 'ST| Passed Toy Safety Standard | D0032920 | Japan Toy Association | 3-14-11, Minami, Daito-ku, Tokyo'. And the ISO noted above refers to the use of standard N&B.

Compare the details above with the name and company given on p6 of the MCS/FB entry - 'DELTA-X | steel construction kit | EPOCH PLAYTHINGS, SCARSDALE, N.Y.' - and you can see why I'm satisfied that D-180 and DELTA-X are both from the same family. It would have been tidier if D-180 had been included in the list of sets on the box but no doubt it was part of the range at one time.

THE PARTS The colour scheme is BZP Strips, DAS, A/Gs, and Brackets; plastic Plates in yellow or blue, or for some, both; Flanged Plates blue (3x5h) and red (5x10h); yellow Trunnions; black plastic Wheels and Pulleys; and iridescent metal Pulleys, Bush Wheel and N&B. Quite a few parts haven't been seen, notably the 56mm Pulley; the Braced Girder, S-012; and the Plates S-038 and S-061. Incidentally PNs beginning with 'P' are used for plastic parts, and 'S' indicates metal, usually steel. Electrical items start with 'E' and 'M' probably stands for Miscellaneous. The parts are accurately made and well finished: notes on them, particularly where they differ from the illustrations in MCS, and exceptions to the colour scheme, follow:

- The motor and gears of the Motor Unit E-004 are inside a red plastic casing which can't be taken apart. There's room in the top of it for 2 AA batteries in series, with an adjacent On/Off switch. The output shaft extends through both sides of the casing; it's made of black plastic and is stepped, with the smaller dia taking the standard boss.
- The Strips are 14.0mm wide and are as shown in MCS except that the 5-hole size also has the slightly elongated end holes shown for the others. Holes are 4.4mm dia but in

other parts, the A/Gs for instance, they are no bigger than 4.3mm.

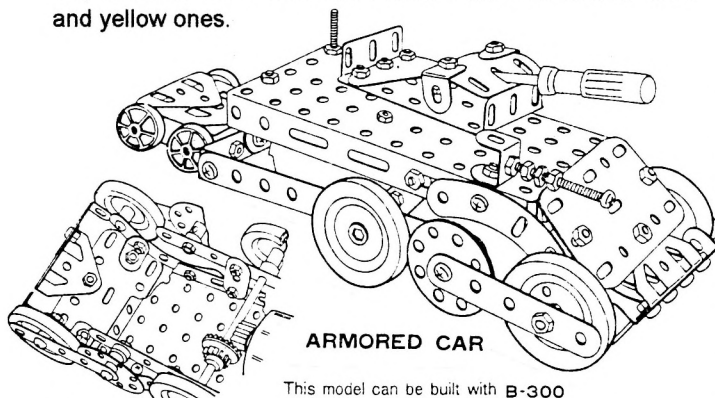
- The lugs of the DAS are at 90° even if they look at 45° in MCS. The holes in them are slightly elongated. Likewise the S-060, Double Bracket - the S-019 style with slotted side holes, has not been seen.
- The 14h A/G has elongated end holes as shown, but every other hole between is elongated crosswise (ie MECCANO-wise). A round hole in one flange corresponds to an elongated hole in the other, and this can complicate matters when using 2 A/Gs as a handed pair. In the 5h Girder all holes are alternately round or elongated crosswise, with again a round hole opposite an elongated one.
- The Flexible Plates are made of a polythene type plastic about 50 thou thick.
- Axles are 4.04mm dia and as well as the lengths shown in MCS, one 40mm long was found among the DELTAX parts.
- The thread used is M4. The Nuts are the standard 6.9mm A/F; the Bolts have pan heads of the same dia and are slotted straight/crosshead. [Is there a name for this combination?]
- The Plastic Small Wheel, P-006, is 20mm dia and is a tight push fit on the Axles. The 28mm Pulley and the 38mm Bush Wheel have double tapped bosses that appear to be made of a zinc alloy (iridescent finished). Their o/d is 8.0mm and the bore, 4.34mm. They are easy to spot because they are crimped in with an 8-prong tool which leaves a 'splined' look inside the end of the boss.
- The nylon Gears are a push fit on the Axles and the tooth pitch corresponds to Mod 1.
- The 6-spoke Flywheel is a zinc casting: its diameter is 45mm and it has a rounded outer face.
- There are two types of Hook, the cast one shown in MCS under DELTA-X, and a sheet metal version with a similar outline, but with the hole in it enlarged enough to take an Axle.

DURATAXE This system appeared in MCS part 5, with just the manual cover being shown, and the comment that it is probably the same as DELTAX. The parts that can be seen on the cover look identical and more conclusively the Japanese characters for the name and manufacturer of the system are identical to those on the D-40 box. It isn't stated in MCS where the name DURATAXE came from but it may be that it's a corruption of DELTAX, or perhaps the Japanese characters can be rendered into English in more than one way.

BUILD-X From Richard Symonds a copy of the box lid and manual for this 'new' system. On the lid is: BUILD-X | steel construction kit | Sears | B-200 | Made in Japan | Imported by Leisure Dynamics of Canada Ltd., Don Mills, Ontario M3A 1C6. In the Manual '1315 Lawrence Ave. E.' is added to that address. Apart from names and addresses, the MCS pages for DELTA-X are virtually identical to their BUILD-X equivalents. The Illustrated Parts page has been rearranged but the PNs are the same and so are the parts except for one addition, the D-180 5x2h Plate, S-038, and one change - the Screw Driver is shown with a cruciform tip instead of a flat blade. The only other change is that the Model No. of the Sailing Yacht model has a 'B' prefix instead of 'D', and errors in its Parts List have been corrected. This last probably mean that BUILD-X came after DELTA-X.

The sets in the range show the addition of a small set B-060 to the DELTA-X line up, and one of the models shown for it is the Mini Car shown on the D-40 box. There

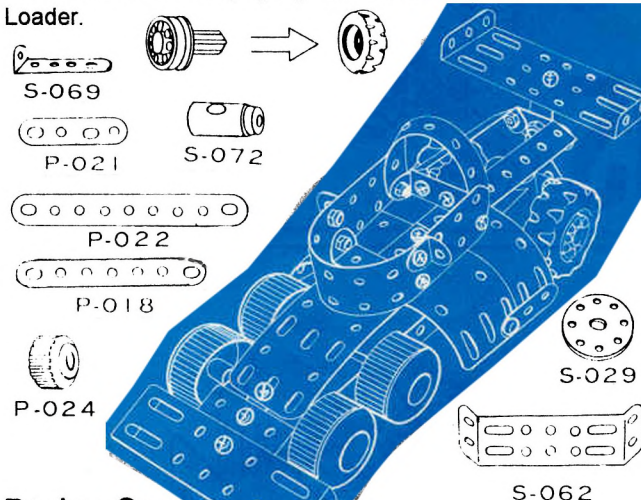
are 18 models in the 8 page manual and by far the best for me is the Yacht in MCS. There's another good vessel, a Steamer, and of the rest the Armored Car below is a fair example. From the models it seems that B-200 included the E-004 geared motor unit, and the larger sets had the E-002 Motor and separate Gears, P-003/5. Richard mentioned that the Set came in a yellow plastic box with a colourful label, and that there were red Plastic Plates as well as blue and yellow ones.



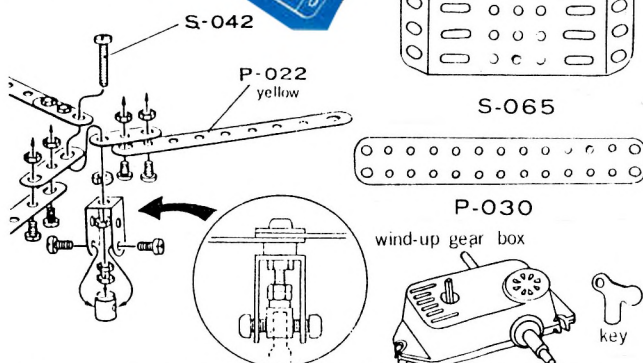
ARMORED CAR

This model can be built with B-300

STEEL CONSTRUCTION KIT SERIES There are 7 Sets in the Series and each is intended to make a particular model. One, a Steam-Engine Train (actually a loco), is in Part 5, and details of two others, a Helicopter and a Racing Car (below), are available. Each has a Model Leaflet with step by step instructions illustrated by blue on white line drawings, and the Set Contents are given with similar illustrations of the parts. All three models are powered by a geared clockwork motor in a plastic casing: the one in the Car is black with a red plastic key. The other outfits are for a Concrete Mixer, a Dump [sic], an Excavator, and a Wheel Loader.



Racing Car



Most of the parts appear at first glance to be standard DELTAX and the PNs are the same, but there are some differences:

- The holes are smaller at 4.2mm - except for those in the 10-hole Strip which are nearly 4.7mm.

- The Axles (at least in the Racing Car Set) are hexagonal in cross section, 4.00mm A/F.
- The Plastic Plates are much thinner, .4mm instead of 1.2.
- The ends of all slotted holes except those in Plastic Plates and the long ones of the Flanged Plates S-062 and 065 (see below), are large radiused, like BRAL.
- The parts are not quite so well finished with slight burr detectable around some of the holes.

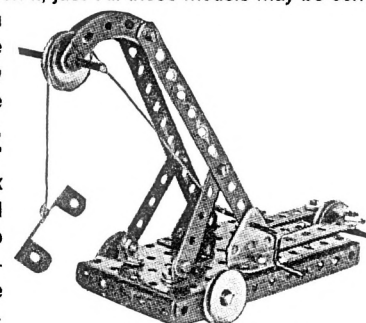
There are also a handful of new parts, the main ones are shown around the Racing Car. The plastic Strips, including the double width P-030, are very flexible. All the Wheels for the Car push onto the Axles; the rear ones (no PN given) have 'W.S.C' moulded into their black plastic tyres, and have red centres: the front centres are chrome. The Coupling S-072, as shown in the inset, is used to connect the motor to the rotor in the Helicopter.

Metal parts are BZP; the colour of plastic parts varies from kit to kit, with combinations of red, light blue, yellow and white. All known details are given in an Extra MCS Sheet.

Don kindly sent me one of the Racing Car Kits. The box measures 7x5½x1½", and shows the model in full colour on the top, and again on the underside, together with black line drawings of all the parts. On each side is 'Racing Car | Wind-Up Motor Makes Train Go'. When made up the model is quite attractive, although it would have looked more realistic if a seat and steering wheel had been represented. I'm told that the prototype was a 1975 Tyrrell P34. On a smooth surface it runs for more than 20' on one winding, with a good turn of speed. The hexagonal Axles for the front wheels 'click' round well enough, though the wheels are so tight on them that it was very difficult to push them fully home.

WHERE AND WHEN The date in MCS for D-180 and DELTA-X is the 1970s; the country for D-180 is given as Taiwan but quite apart from the wording on the D-40 box, the thick DELTAX Plastic Plates have 'Made in Japan' moulded into them. It's just possible of course that at some stage the parts were made in Taiwan but there's nothing to corroborate this in MCS. As already mentioned BUILD-X has 'Made in Japan' on the box lid, and may have appeared somewhat after DELTAX. The STEEL KITS were on the Canadian market for a year around 1989, and on the box (and moulded into the motor) is 'Made in Korea'. As a matter of interest the self-adhesive transfers in the Racing Car Kit are mostly of products like 'Elf' and 'GoodYear', but there's also 'Australia' and an Australian flag. On the car on the box though is a Union Jack. Whether production in Korea was by the original Epoch Company is not known, but as some parts have changed slightly, perhaps not.

QUERIES 18. Having some parts without a manual is not uncommon but now I've got a Model Leaflet without any parts, and it doesn't have the name of the system on it, just 'All these models may be constructed with this set'. With one or two exceptions the parts look like MECCANO and the following can be seen: 2, 5, 12, 22a, 48a, 52, 90a, 126. Also Axles, about 2" and 3", a Crank Handle, hex Nuts and CH Bolts, and small rubber Collars. There are no holes in the face of the Pulleys, and the Trunnions are the 7 hole sort with no cut-outs. Any ideas?



Travelling Crane

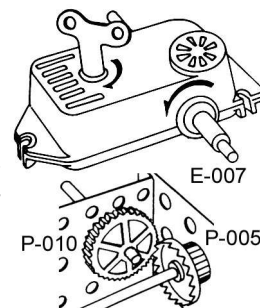
DELTA-X Jean-Louis Figureau kindly sent a photo of a Japanese DELTAX D-101 set he obtained recently, & some photocopies from the manual. Apart from the D-40 set mentioned in 11/288, and the pages in MCS about the D-180, this is the first information about the outfits sold in Japan - as opposed to DELTA-X sold in American & BUILD-X in Canada.

The D-101's box is about 28*18cm, & the lid, right, is in the style of the D-40 in OSN 11. The parts are in a white foam block and are in the colours given in OSN 11 (the Pulley & Wheel Disc do not have the pink colour shown on the lid). The contents can be seen in the table below, taken from the manual. All the parts can be seen in MCS under DELTA-X or BUILD-X except a C/W Motor, E-007, a 6-spoked Gear, P-010, both shown top right, & a 25mm Bolt, S-042.



The A5 size manual is for sets 100-400, and is all in Japanese. Its covers are shown under the box left, and the Tower on the front would be about 5ft high. On the back cover is a photo of a number of set boxes, and the list of them underneath includes all those in the Set Contents, plus D-40 & D-80. Four D-40 boxes can be seen in the photo, each with a different model on it, including the one on the OSN 11 box. None of the other boxes can be identified but it's possible that there is more than one box for one or two of the sets. At bottom centre are 6 boxes with a large letter on each (C,E,F,H,I,J) but it can't be seen whether they are constructional sets.

The Set Contents below show that the sets are not entirely progressive. The contents of the American DELTA-X, & Canadian BUILD-X sets are not known but from the parts list given for those sets' models (the BUILD-X Tower Crane on MCS Sheet X1.5 is an example), the contents below would not provide quite enough parts to allow any of them to be built. Possibly then this material is older than the North American sets, especially since no mention is made of a D-500 outfit, or the D-180 in MCS.



Parts\Set	D-100	D-101	D-150	D-200	D-300	D-400
S-001			2	2	2	
S-002			1		2	
S-004	2	2		4	2	2
S-005				2	2	4
S-006			2	2	2	2
S-007	4	4				2
S-008				4	4	4
S-009				2	2	6
S-010	2	2	2		2	4
S-011	2	2	2	2	4	6
S-012				4	4	4
S-013	2	3	4	5	6	10
S-014			2	2	2	8
S-015			4	5	5	6
S-016	2	2	2	2	2	8
S-017				5	6	
S-019			1	4	2	2
S-020	4	4	6	7	9	12
S-021				4	4	2
S-022				1	1	1
S-023					1	3
S-024			2	3	2	3
S-025	1	1			1	2
S-026		2				1
S-027	4		4	4	4	5
S-029		2	1	1	1	2
S-030						1

Parts\Set	D-100	D-101	D-150	D-200	D-300	D-400
S-031				1	1	1
S-033			1	1	1	1
S-034	7	7	7	8	10	17
S-035	31	31	31	95	105	105
S-036	40	40	40	105	120	120
S-038	2	2		3	2	
S-039			1			
S-040	1	1	1	1	1	1
S-041	1	1	1	1	1	1
S-042			2	4		
P-001	2	2		4	4	4
P-002	2	2	4	7	6	4
P-003				1	1	1
P-004				1	1	1
P-005				1	1	1
P-006	1	1			4	4
P-007						1
P-008			1	1	1	2
P-009	2	2	4	5	6	8
E-001					1	1
E-002					1	1
E-004	1	1	1	1		
E-005					1	1
M-002					1	1
M-003	1	1	1	1	1	1
M-004					1	1
M-005	4		4	4	4	4

DELTA-X: S1

OSN 31/924

Snippet: New System – Another CONSTRUCTION

This set was sold from Australia early in 2003 and only the lid, right, is known. It is entirely different from the earlier Japanese CONSTRUCTION TRUCK (see 27/803), and the parts look as if they are the Chinese CONSTRUCTION MODELS/WISDOM type. Perhaps it is a No.6 (see 10/238) in disguise, though the Cab at least is slightly different: the rear light of the Cab used to be circular (see 10/239). The Air Horns on top of the Cab are new too.

The smaller centre letters of the 'TRUCK' part of the name on the box have 'JIGSAW' above them, presumably to invoke the notion of assembly (even if jigsaw pieces are not usually



interchangeable). The slogan under the name reads 'CHANGE IN THOUSANDS OF WAYS'. The first word of the two under the last letters of CONSTRUCTION is FRICTION. The second might be POWERED – in any case no doubt the set includes a Friction Motor, another feature of the WISDOM No.6.

CONSTRUCTION TRUCK [2]: S1

OSN 31/924

The DELTA-X GALAXY SETS DELTA-X was the name used in America in the 1970s for a system made by the Japanese Epoch Playthings. It had a few unusual parts and a hole pitch of 14.0mm, see 11/288 & 29/845. Space sets were mentioned in 27/811 but with no details other than sketches of 3 of the parts. Now thanks to John Peach there is information on 2 of the likely 4 sets in the space series, one called Galaxy Warship, the other Galaxy Station.

The Warship set is #7993 and the picture right covers most of the lid. The insets were along its top and a panel to its left describes the Set as having: Sturdy steel construction parts and plastic components; steel hardware and all necessary tools; wind-up motor; battery operated "laser" light; magnetic spaceman; interchangeable space play accessories; colorful flag and decorative decals.

The instructions are inside the lid with the large exploded view in Fig.2 plus 6 small panels showing particular features. For example, Panels 3 & 5 in Figs.3 & 4. The metal parts are the white top & bottom halves of the main fuselage, and the double Fin unit; the red ones, the Wings & Tailplane. As can be seen many of the parts bolt together – the fuselage halves for instance by their 4h long side flanges, which also carry the Wings. The plastic parts are grey and in some cases they push together. The finished model scales at over 25cm long.

The Motor is black and looks like the one shown in 11/289 (for the STEEL CONSTRUCTION KIT model) It is mounted in the fuselage behind the cockpit and is wound from underneath. It drives the rear Wheels – the front Wheels are not shown in Fig.1 and the model can in fact sit on 3 Feet which would be bolted to the underside of the fuselage, rather than the 4 Wheels. The winding spindle extends upwards and the various space play accessories (Fig.3) push onto it. So they rotate as the Motor runs. The details of the flashing Light will be clear from Fig.2. The Spaceman (Fig.4) is white with jointed limbs and magnets in the feet. It scales at (very approximately) 7cm high.

A Set seen on Ebay says it was made in 1978.

The Station set is #7994 and the lid has the same layout as the Warship. The description too is the same except that 'Operating Winch' replaces the 'Wind-up motor'. The picture has suffered and only the bare outlines of the model can be seen. The main parts seem to be a rectangular base, which may include the 8½*15½cm part with 45° flanges in OSN 27, and a square section tower sitting on one end of it. Its 2 sides that can be seen are made from the other 2 OSN 27 parts, with the righthand Plate at the base's short side. Said Plate has 2 Trunnions bolted to the shorter slotted holes and a cord with Hook runs over a Pulley between their apex holes into the Plate's long slot. A transparent dome sits on top of the tower and a Spaceman stands on a small platform alongside it. Another tower of about the same height but of smaller, circular section is attached near the top of the main tower, on the side

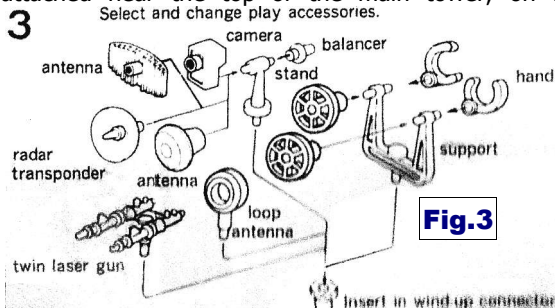


Fig.3

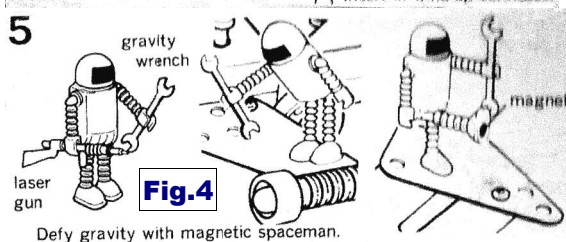


Fig.4



opposite to the one with the Trunnions. It has the Light at its summit.

John wrote that the metal parts are strong, and that the N&B have a brass look & run together excellently.

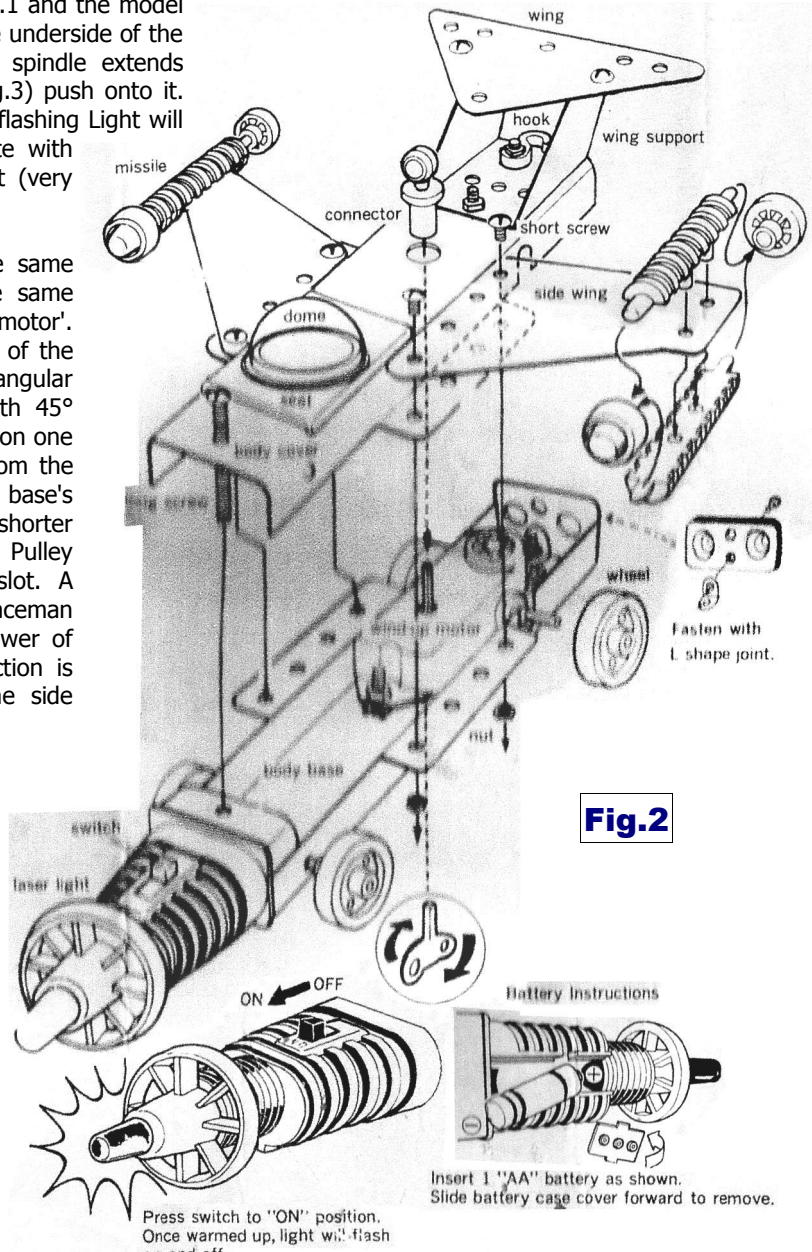


Fig.2