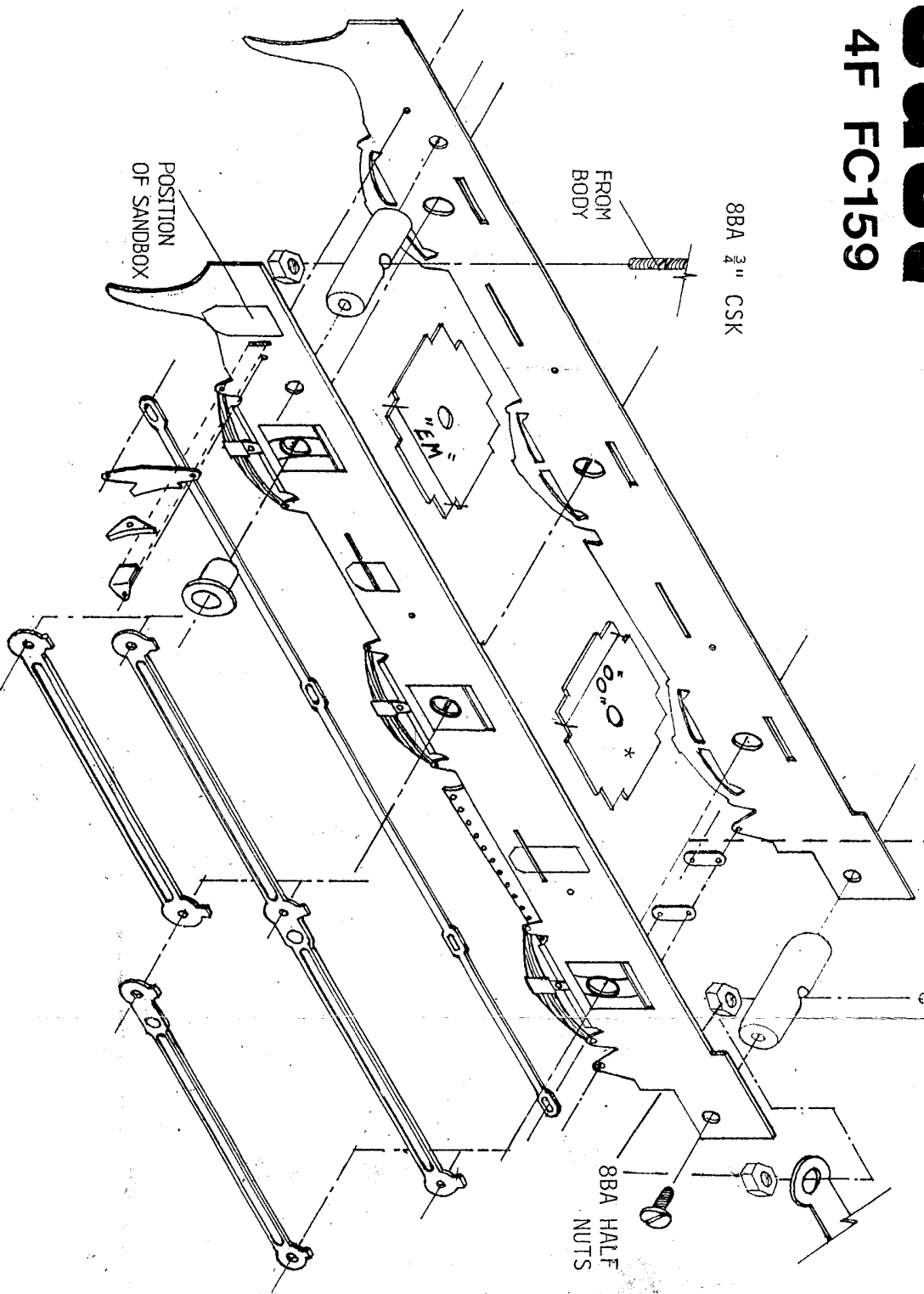


South Eastern FINECAST

MIDLAND 4F FC159



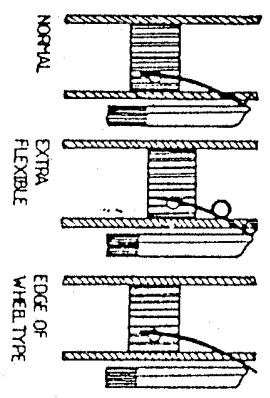
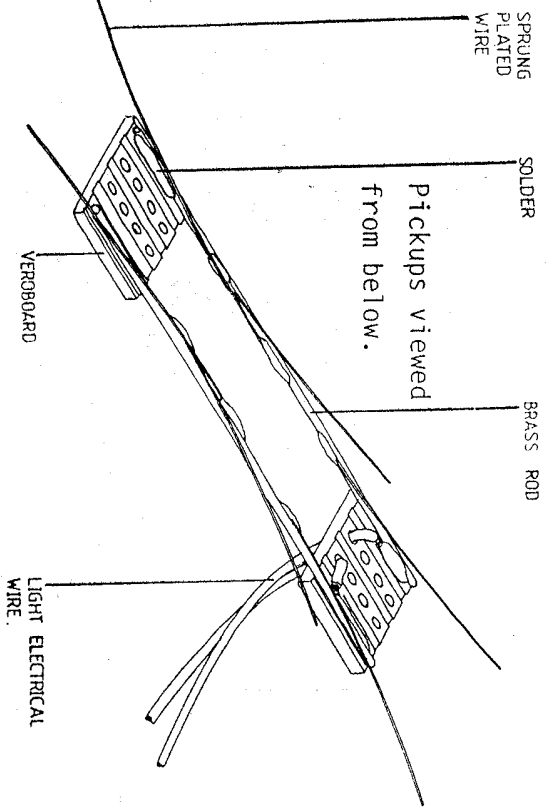
DRIVING AXLE (FIREBOX)
(See Motor/Mount notes)

FROM BODY
8BA 1/2" CH HD

8BA 3/4" CSK

8BA HALF NUTS

POSITION OF SANDBOX



WHEEL PICKUPS
WHEEL PICKUPS ARE NOT ALWAYS USED ON BOTH SIDES OF THE CHASSIS IF THE WHEELS ON ONE SIDE ARE NON INSULATED.

SOUTH EASTERN FINECAST
GLENN HOUSE
HARTFIELD ROAD
EAST SUSSEX
RH18 5DZ

- 1 Before removing any parts from the etched fret, first drill out the holes in the brake hangers and those which carry their support wires in the main sideframes, also the holes in the brake tie rods to 0.6 mm dia. The holes which take the frame spacer screws should be opened if necessary to 2.4 mm dia and the coupling rod holes to 1.0 mm dia if using Romford size crankpins.
- 2 The axle holes should be opened to 3.7 mm dia to accept the axle bushes, with a tapered reamer or round needle file, until the bushes are a good fit. The bushes are to be soldered in place later in the assembly.
- 3 If using a DS10 motor bend up the bracket (bend line on the outside) to a right angle. Later when a good gear mesh has been achieved a light solder run across the mount will stiffen this bend.
- 4 Assemble the frames using the spacers and screws, fit packing washers if side movement of the driving axles is to be restricted. If EM spacers are being substituted remember to rotate the chassis base plate into the correct plane.
- 5 Fit the (DS10) motor into the bracket and locate the mount onto the axle to be driven. Place an axle with a gear wheel into the rear axle position and the worm gear onto the motor shaft. This should achieve a good mesh, if not remove and adjust the mounting bracket. When satisfied, solder the mount into position. Also solder the bend in the bracket and the bushes supporting the gear axle. The motor should be removed before soldering.
- 6 Reassemble with other axles, bushes, wheels and crankpins. Check for free movement, not forgetting to, (quarter) the wheels onto the axles. When wheels turn freely without tight spots, solder the other bushes into place.
- 7 Remove wheels and rods. Cut 6 lengths of 0.5 mm wire and fit and solder in place to support the brake hangers (top and bottom). Start with these wires slightly over length as they can be cut to length later. Add the brake pull rods, again using 0.5 mm brass as per the drawing.
- 8 Reassemble the axles, wheels and rods, checking that they do not touch any of the brake components, which might lead to short circuits occurring.
- 9 Build up the pick-up gear as per the drawing and fit to the underside of the chassis base plates. Either glue or screw in place.
- 10 When chassis is complete it is best to paint the whole assembly before the final fitting of motor and wheels. The balance weight positions on the wheels can be obtained from the box picture or photographs of the prototypes.

CHASSIS PARTS LIST

1	1 x ETCHED CHASSIS FRET	8	2 x VEROBOARD BLOCKS
2	6 x AXLE BUSHES	9	4" MOTOR WIRE
3	2 x FRAME SPACERS	10	BRAKE HANGER WIRE 0.5mm BRASS
4	4 x FRAME SPACERS SCREWS	11	PICKUP WIRE
5	1 x 8BA 3/4" CSK	12	6 x SANDBOX (castings)
6	1 x 8BA 1/2" CH HD	13	BRASS WIRE for SANDBOXES 0.7mm
7	1 x 8BA NUT	14	2 x 8BA HALF NUTS

ADDITIONAL PARTS REQUIRED TO COMPLETE

MOTOR and MOUNT (A 1620 Can Motor was used on our prototype, mounted vertically in the firebox on a standard DS10 style mount, with the worm forward of the axle. It may be necessary to install a thin shim of plastic or metal between the mount and motor face to lift the motor clear of the top edge of the chassis. The plate marked * should be installed in a fully forward position, if the rear axle is being driven and in a rearward position if drive is on centre axle. NOTE: If centre axle is to be driven, it will be necessary to remove part of the underside of the boiler.

6 x 5' 3" (21mm) Driving Wheels.	3 x Axles.
6 x Crankpins.	1 x Gear set.
3 x Sets 4' 0" (16mm) Tender Wheels. (1B)	