

Assembly Instructions for Blunt Trucks and Chassis

Stage 1: Assemble Trucks without Brake Rigging
ie Bolsters/Sideframes/Gearbox/Wheelsets
check clearances and smooth operation

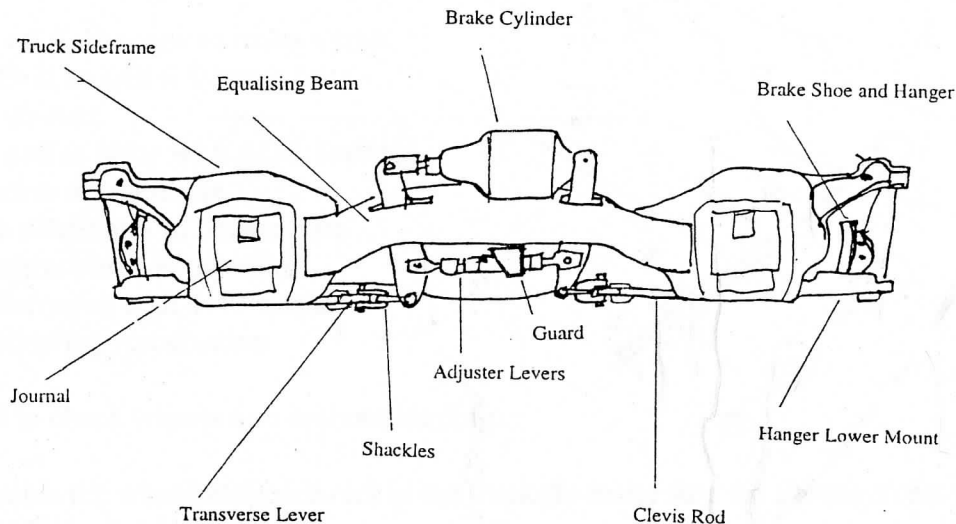
Stage 2: Attach Detail and Brake Rigging to Sideframes

Stage 3: Final Assembly

Preparation

Identify the parts and study the Blunt Truck drawings to learn how the brake rigging works and the function of all the components.

Clean up all the parts and remove any casting flash.



Current Pickup method

In these Instructions we assume that all wheels are insulated on same side eg Right side, and that the body of the loco is live.

This requires-

- current collectors to insulated wheels eg phosphor bronze wire
- base for current collectors on truck bolster eg piece of Printed Circuit Board (PCB)
- wiring from current collectors to motor

Line up gearbox/wheelsets and allocate them to positions in the drive train.

Identify the insulated wheels, and insure that the insulation is as required (all on the Right side).

If the insulated wheels are not on the correct side, undo the nuts and screws holding the gearbox together, open it up and change the wheelset over so that the insulation is on the desired side

Cut a 3/16 inch ID tube for each truck as "connecting tubes" for gearbox/wheelset pairs

1 ASSEMBLE TRUCKS

Journals

Clean out journal bearings with 3/32 in drill

Trial fit journals to sideframe; file where necessary to get flush fit against sideframe

Fix in place with adhesive (ACC).

Bolster

File additional clearance in underside of bolster for drive shaft with a round file.

Drill truck mounting hole 3/32 in diam, to take truck mounting pivot-

- it does not have to go all the way through

(Be careful to drill vertically)

Insert 3/32 rod into hole as truck mounting pivot, leaving 1/2 inch proud.

Trial fit bolster onto sideframe boss for smooth equalisation.

Check inside-to-inside dimension to fit wheelsets; file ends of bolster as required

(too tight is better than too loose- bolster can be shimmed out).

File sideframe boss to make sure it does not protrude from bolster.

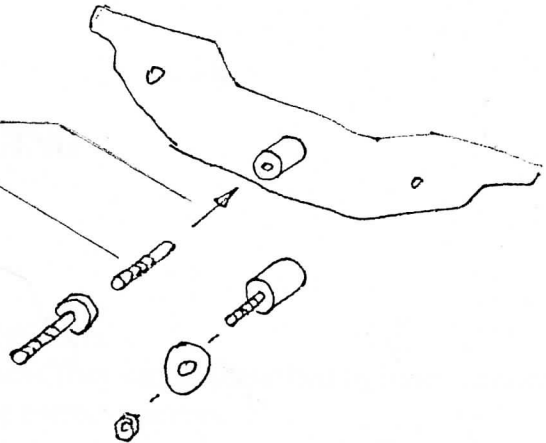
Cut head off 4-40 screw to make a stud.

Use #33 Drill to drill sideframe boss to take 4-40 stud.

Fix 4-40 stud in place with ACC, leaving 3/8 inch clear of sideframe.

Assemble sideframes to bolster with wheelsets/gearboxes in position.

Attach sideframes with 4-40 washer and nut, allowing equalisation



Rotate UJ to check wheels turn without binding.

Test assemble the wheelsets/gearboxes in the trucks to make sure the bolster clears the "connecting tube" joining the gearboxes.

Current collectors

(This is one way of doing it- use whatever method suits you)

Fix PCB to truck bolsters with adhesive.

Bend phosphor bronze wire to bear lightly against inside of wheels

Solder PB wire to PCB

Solder motor hook-up wire to PCB

Motor

Attach Motor to motor Mount Base (48) using cable ties or adhesive. Solder to Motor Mount Deck (43).

Upper Drive Shaft (Weaver part)

Fit this assembly to

- 1) inboard end of transfer tower
- 2) motor shaft

Adjust length of Drive Shaft if necessary and solder Motor Mount to underframe

Chassis test assembly

Fit the truck mounting pivot through the bolsters (44F&R), enlarging the central hole to fit. Attach the Lower Drive Shaft (Weaver part) to the Universal Joints on the gearboxes and adjust the length of the shaft if necessary.

Check out the Drive Train- attach Control Unit (throttle) wires direct to the motor and test run chassis.

Dis-assemble the trucks so that the sideframes can be completed.

2 TRUCK DETAIL AND BRAKE RIGGING

Completing the Blunt truck

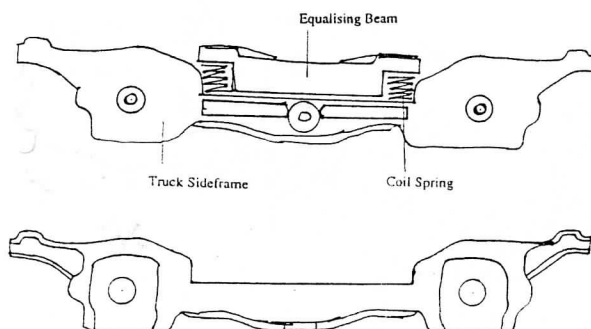
Examine the four sets of Equalising Beams and Brake Cylinders.

These parts are "handed" and have Left and Right versions. They can be identified by having either one or two raised dots on the castings; match the dots for correct pairings.

Identify the Left and Right Brake Cylinders from the sketch and match them with the Equalising Beams



Identify the Hood End and Cab End trucks and assign the correct pairs of Equalising Beams and Brake Cylinders to right and left sides.

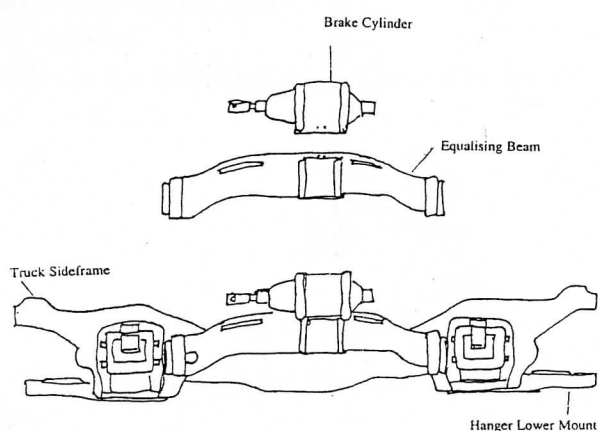


Identify the Coil Springs and trial fit to the Truck Sideframe and Equalising Beam.
Prepare the whitmetal by scraping or sanding, and then fix the parts in place with adhesive- ACC, Epoxy or your preference.

Identify the Hanger Lower Mount and the Brake Shoe and Hanger. Prepare as above.

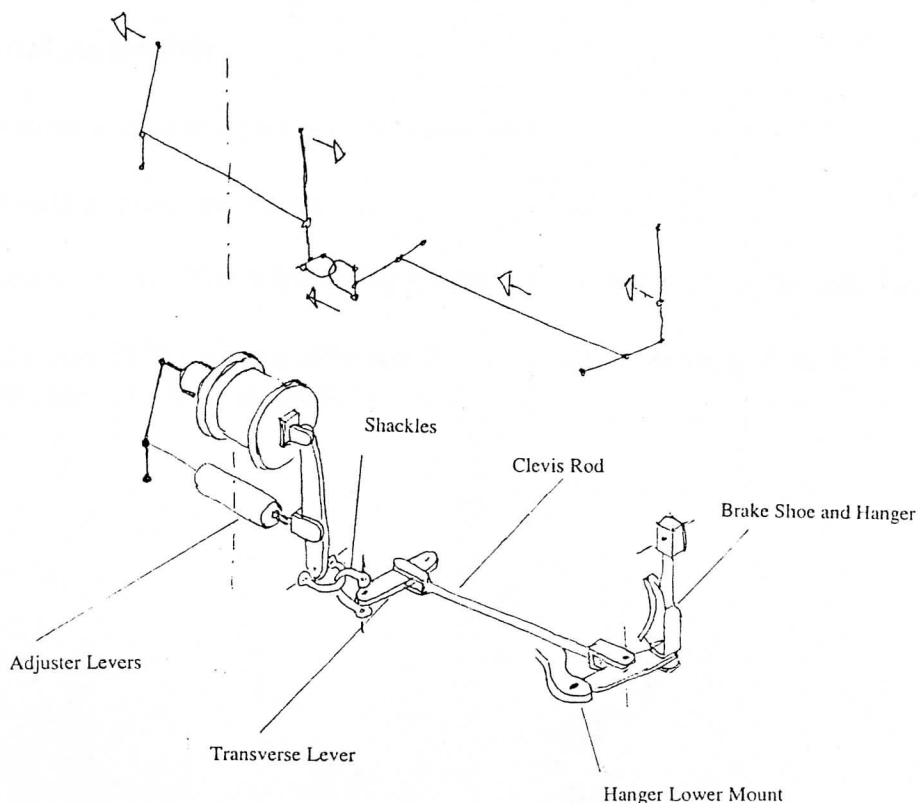
Fix the Hanger Lower Mounts in place on the Sideframes.

Clean up the Brake Shoe and Hanger castings and attach to the Sideframes by putting a pin through from the outside of the sideframe and secure by soldering a scrap brass washer to the pin (an ordinary dressmakers pin is OK), or with adhesive.

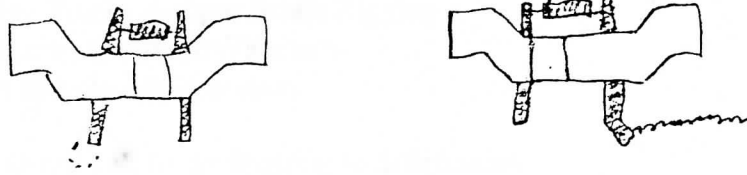


Brake Gear

Identify the various brass parts and use the drawings to understand how the brake gear works.



Note that the Adjuster/Vertical Levers has an extension with a hole at the top for attachment of the handbrake chain.



This is only on the cab end truck (both sides), so cut the extension off the vertical levers on the other truck.

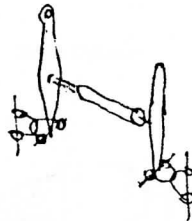
Trial fit the parts for one truck sideframe and assemble using adhesive.

Solder the parts together in sub-assemblies:

- Clevis Rod with Transverse Lever

- Two Shackles together

- Fix two Shackles to the bottom of each Vertical Lever



Use adhesive to fix all in place and add the Guard to the underside of the Equalising Beam to protect the Slack Adjuster

3 Final Assembly

Re-assemble the trucks, and mount in the underframe.

Test for smooth running and clearances.

Solder washers onto the Truck Mounting Pivots to hold the trucks in the underframe bolsters.

Solder wires from PCB / current collectors to motor, and from the body to the motor.

Test run the chassis picking up from the track