

## Hunslet alice and port class & ruby

Thank you for buying this Loco kit. Please read all the instructions before assembly. The first thing to do is to rub down all the parts you are going to paint with sandpaper and a small file in awkward places to get the worst of the grain off. Then spray paint with Halfords grey primer. Rub down with 500grit wet and dry. Spray primer again and rub down again until you get a smooth finish. Then paint the colour of your choice (Halfords paint). If there is any marks or imperfections rub down again with wet and dry. (Gloss paint will show this) then repaint.

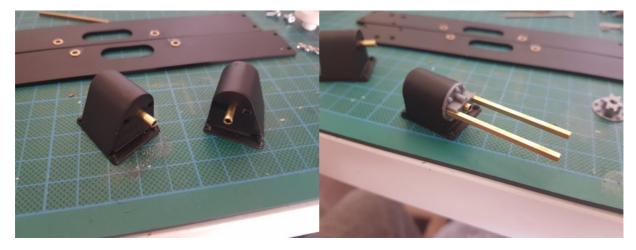
When applying rivets at 5mm intervals before the top coat glue the rivets on with liquid poly. When dry paint with primer again and finish with top coat.

## <u>chassis</u>

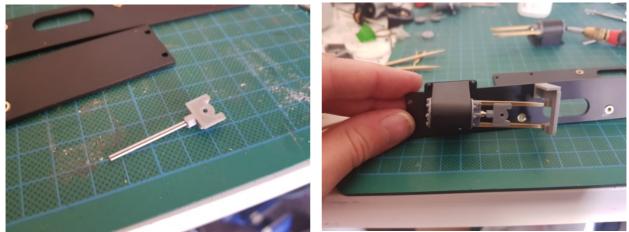
start off by taking the frame spacers and glue in some 2mm nuts use the bolts to hold in places as the glue dyers. Next paint the frames and buffer beams black red for the front press in 4 1/8 brass bearings making sure you have a handed pair and that the top hat is on the out side of the frame



DO NOT GLUE AT THIS TIME. next take the cylinders push in the 3mm x 20mm brass tube must have about 7mm sticking out you will see that there 2 sq holes in the rear of the cylinder push in the 2 sq brass rods and the rear cylinder cover



Take the 2 cross-heads and glue in the 2mm steel rod next fit the cylinder to the chassis with 2 3mm x 8 cab head bolts slide the cross-head in to the tube then fit the slider bar holder test the cross-head must move freely once happy it moves freely add a dab of glue to the slide bar holder and use super glue on the rear cylinder cover and slide bars leave to dry.



Next remove the cylinder from the frame take the connecting rod and countersunk the small end then fit to the cross-head with a 2mm x 6mm long bolt and nut do not tighten leave loss to float about again make sure it moves freely



next take the gearbox housing and drill the bearing holes to 4mm push in the axle then fit the bearing making sure it turns freely when happy add a dab of glue to the bearing to hold in place. Next fit the worm to the motor leaving a cap of about 1.5mm using 2 3mm x 6mm long bolt the motor to the gearbox housing make sure you have the meshing right test the motor on a 3 volt battery when happy add some oil to the gears.



Next fit the wheels to the axle by pressing them on with a vice back to back for 32mm is 28mm and for 45 mm is 41mm make sure you have equal amount ever side of the wheel. (for 45mm gauge use the new longer axles supplied).

Next fit the chassis together using 2mm x 8mm bolts bolt on one side frame then fit the wheels and gearbox to the rear of the chassis now fit the next frame should look like the pic below.



Now the fun part take the outside cranks and screw in 2mm x 10mm c/s screw in to 2 cranks and 2mm x 16mm c/s screw in the next 2 the 16mm ones are the rear cranks. You need to make sure that the bolt is flush with the crank or it will hit the chassis sides. Take the 2 front cranks fit a 2mm bearing with a nut and file back flush this is so it don't hit the cross-head next open up the holes in the rods so the bearing fit freely with some play fit the rods to the front cranks use some glue to hold the nut in place. Fit the front cranks to the chassis and using a 0.9mm Allen key set the cranks to 90 do not over tighten might have to move them again.



Next fit two 2mm bearings to the rear cranks with a nut and file back till flush this just makes it look better later next fit the cranks to the axle with the rods again set at 90 do not fit the coupling rods at this time. next test the chassis adjust the cranks if necessary till you get a free running chassis when you happy fit the connecting rods and test again you can now fit the foot plate in place you will need to countersink the top of the foot plate use 4 2mm x 6mm long bolts make sure the front bolts are flush with the foot plate you can also fit the buffer beam with 4 2mm bolts fit the motor cradle over the motor and use 2 3mm bolts to hole in place for now you can now test the chassis on the track.



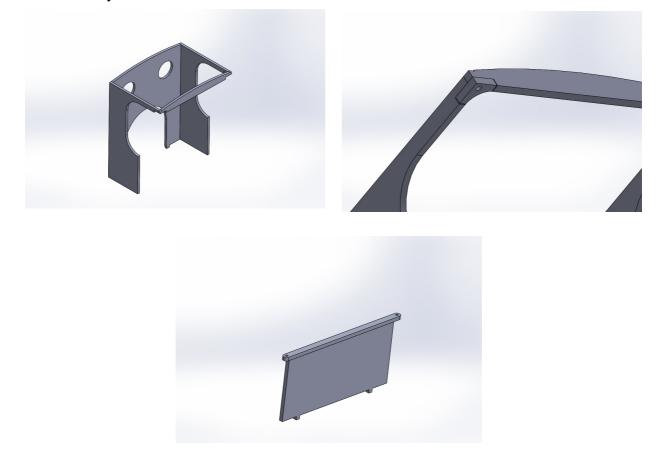


Next paint the smoke box in primer then glue the chimney bottom to the top then fit the brass tube with the chimney top and fit the smoke box door you can now paint black and leave to one side



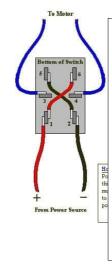


next build the cab take the front and sides the side glue on the outside of the cab front use a square till the glue is dry next take the rear cab support and the corner parts glue in place once dry you can now paint the cab. Take the rear cab parts and glue the strip on top as pic below. The same goes for the hunslet but you have a full cab back.



Next paint the tanks dome and firebox and glue on the firebox detail you can now add as much detail as you like using the parts from cambrian model rail mouldings. Next you can now fit the smokebox and fire box with the tanks. The tank is held in place between the two use 2 3mm x 10 bolts for the smoke box and 2 3mm x 12mm for the firebox you will see inside where 2 3mm nuts fit inside. Next you can now glue on the cab front you will see there is slots on the foot plate to locate it when dry fit the rear cab with 2 brass wires as the pic below. As for a cabless hunslet you can fit the cab sides and back





The kit comes with a switch and battery holder you can add this to the model or add rc if you wish there is o hole in the foot plate for the switch on the left of the cab wires go thought the hole in the firebox





if your having any problems please get intouch many thanks leanne and peter pdf-models.com tel. 07875264075