Routemaster 2010 – Twin Steer

Key Benefits of the design

- Familiar Routemaster front and rear appearance.
- Large seating capacity - 68 upper deck and either
  a) 28 seats plus 28 standees and one wheelchair or
  b) 16 seats plus 50 standees and one wheelchair lower deck.
- Space for two cycles
- Two staircases
- Two doors to lower passenger compartment plus open rear boarding platform giving access to the top deck.
- Included in the design are provisions for ticketing systems, passenger information systems, air chill, cctv recording equipment and two way radio.
- Lack of wheel arch intrusion on lower deck provides a versatile passenger compartment with greater options for seat/standee layouts, improved passenger flow, wheelchair position.
- Driver enclosed in separate cab for security and safety.
- Driver's central position on the pivot of the front bogie provides rear visibility on both sides at all times, overcoming the limitations of articulated bus designs and the blind spots created whilst cornering.
- The lack of "cut-in" on turns eliminates danger zone for cyclists and other road users – an advantage over both articulated and conventional rigid designs.
- Proven twin steer bogie design eliminates steering anomalies to enhance the dynamic stability of the vehicle while also reducing component loading.
- Steering path is optimised for urban driving and can also be switched between modes for low speed manoeuvring.
- Small steering angle in relation to drive direction on each bogie reduces side force demand on tyres and gives robust steering control under adverse road conditions.
- Drive unit bogie and front steering bogie/driver's cab are demountable for replacement or servicing, providing minimum downtime.
- Coupling or uncoupling bogies automatically connects or disconnects the service lines and electrics.
- The design lends itself to alternate drive systems: diesel, diesel electric hybrid, fuel cell
- Front bogie can accommodate separate diesel power pack.
- With drive systems mounted in the bogie units and not integral to the main passenger compartments, noise paths are eliminated making for a quieter internal environment.
- Capacity above the rear bogie unit and within the body for alternative drive system equipment: fuel tanks, hydrogen tanks, battery packs, control equipment etc as well as space for other equipment: air chill pack, heating, passenger information systems etc.
- Highly manoeuvrable, small turning circle, with the option of crab docking at stops.
- Four axle layout with air compensated suspension provides reduced axle loadings and the ultimate in ride quality.
- Complex drop centre axle designs are not required. Despite the additional axles compared to conventional designs, lightweight standard axles can be used with smaller tyres providing a lower cost solution.
- Packaging essential equipment within the bogie units allows the body compartment to be a relatively simple structure. It is feasible that alternate body units are provided for standard bogies – in this way the vehicle could be re-configured for coaching or other specialist use at low cost.
- It is also feasible to quickly swap bogies in the field to minimise inconvenience to passengers. Replacement bogies are independently driven or can be towed behind a light service van.