



| No. | Qty | Description | Material |
|-----|-----|---------------------------------|-----------------|
| 1 | 1 | Vertical Single Base Plate | Steel |
| 2 | 1 | Vertical Crosshead Slider | Brass |
| 3 | 1 | Flywheel Single Cylinder | Brass |
| 4 | 1 | Single Cylinder Crank | Steel |
| 5 | 1 | Con Rod Bearing Keep | Steel |
| 6 | 1 | Connecting Rod | Brass |
| 7 | 2 | Con Rod Bearing Halves | Bronze |
| 8 | 1 | Slider Pin | Steel |
| 9 | 2 | Slider Cap Left/Right | Brass |
| 10 | 4 | Cap Spacer | Brass |
| 11 | 1 | Eccentric Wheel | Brass |
| 12 | 1 | Eccentric Wheel Plate | Brass |
| 13 | 1 | Eccentric Rod | Brass |
| 14 | 1 | Valve | Stainless Steel |
| 15 | 1 | Valve Nut and Bolt (M2 x 9.5mm) | Steel |
| 16 | 1 | Chest | Brass |
| 17 | 2 | Inlet/Outlet Pipe | Brass |
| 18 | 1 | Packing Nut | Brass |
| 19 | 1 | Piston Shaft Packing | Teflon |
| 20 | 1 | Piston | Brass |
| 21 | 1 | Piston Shaft | Stainless Steel |
| 22 | 2 | Piston Ring | Teflon |
| 23 | 2 | M3 Nut | Steel |
| 24 | 1 | Cylinder | Brass |
| 25 | 1 | Cylinder Plate Inner | Brass |
| 26 | 1 | Cylinder Plate End | Brass |
| 27 | 2 | Main Bearing Upper | Bronze |
| 28 | 2 | Main Bearing Lower | Bronze |
| 29 | 4 | Cap Screw M3 x 45mm | Steel |
| 30 | 12 | Cap Screw M3 x 18mm | Steel |
| 31 | 2 | Bolt M2 x 11.5mm | Steel |
| 32 | 2 | Counter Sunk Screw M3 x 5mm | Steel |
| 33 | 1 | M3 Grub/SetScrew x 3mm | Steel |
| 34 | 1 | M3 Grub/SetScrew x 4mm | Steel |
| 35 | 4 | Cap Screw M3 x 12mm | Steel |
| 36 | 1 | Vertical Base Top | Steel |

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|-----------------------------------|-------------|--|----------|-----------|
| Drawn By: | Checked By: | File Name: | Date: | Scale: |
| | | VSA v1.1.8 Assembly v0.1 | Apr 2011 | N/A |
| Copyright Chiltern Model Steam | | Part: Vertical Single Marine Engine Assembly Instructions | | |
| | | Material: N/A | Rev: 0.1 | Part: N/A |

Figure 1 – Assembly