Exploded view with unique parts labeled

Collapsed view of assembly

Revision table labeled, containing dates and short descriptions. Note the .0, .1, .2 revisions

Assembly table callouts are the most important part of an assembly drawing; don’t forget to call out “quantity” of parts

Revision number matches revision table Part number and name called out.

Dimensions should assist integration and assembly, not machining of a single part

No tolerances or surface finish specified in an assembly.

Signature block, “drawn” title changes when major drawing changes are made

USE ALL CAPS IN ASSEMBLY DOCUMENTS
Additional assembly page to specify additional details.

Part number and revision are called out on all additional pages.
Location, material, certifications, surface coatings, etc are called out as well with any additional notes.

Revision table labeled, containing dates and short descriptions. Note the .0, .1, .2 revisions.

Tolerances are specified to the 0.xx and 0.xxx precision.

Signature block, “drawn” title changes when major drawing changes are made.

Isometric views are always helpful.

USE ALL CAPS IN ASSEMBLY DOCUMENTS.

Surface finish called out (See Standard_Surface_Finishes.pdf)

Revision number matches revision table Part number and name called out.
Ordinate dimensions are used; note that the origin is strategically placed for ease of machining (off an external side, not the center of mass).

All dimensions are called out to 0.XXX since this will be a CNC machined part and simple to accomplish.

Special tolerances are called out.

Part number and revision are called out on all additional pages.
For complex parts, it is helpful to designate a whole page to hole callouts. The table (which has an available template online) is very useful for a machinist. Note how all details are called out to reduce error: 10-32, #7, 0.2010...etc

<table>
<thead>
<tr>
<th>BOLT</th>
<th>TYPE</th>
<th>DRILL DIA</th>
<th>DRILL DEPTH</th>
<th>COUNTERSINK DEPTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>10-32 FREE FIT X 16</td>
<td>#7, 0.2010</td>
<td>THRU ALL</td>
<td>0.200</td>
</tr>
<tr>
<td>#2</td>
<td>PIN LOOSE FIT X 2</td>
<td>0.3750*</td>
<td>0.375</td>
<td>N/A</td>
</tr>
<tr>
<td>#3</td>
<td>PIN LOOSE FIT X 4</td>
<td>0.1250*</td>
<td>0.375</td>
<td>N/A</td>
</tr>
<tr>
<td>#4</td>
<td>6-32 HELICOIL X 10</td>
<td>0.36, 0.1065</td>
<td>0.350</td>
<td>N/A</td>
</tr>
<tr>
<td>#5</td>
<td>6-32 TAPPED X 8</td>
<td>0.25, 0.1495</td>
<td>THRU ALL</td>
<td>0.300</td>
</tr>
<tr>
<td>#6</td>
<td>4-40 HELICOIL X 4</td>
<td>0.31, 0.1200</td>
<td>THRU ALL</td>
<td>N/A</td>
</tr>
<tr>
<td>#7</td>
<td>VENT HOLE X 14</td>
<td>#55, 0.0520</td>
<td>SEE DRAWING</td>
<td>N/A</td>
</tr>
</tbody>
</table>

*HOLE REQUIRES REAMER TOOL
The specified coordinate system comes in handy here. Note, many dimensions are to the 0.XX tolerances as the exact location of vent holes is not required. Since each side requires a separate setup on the machine, relaxing the tolerances saves a significant amount of time & cost.