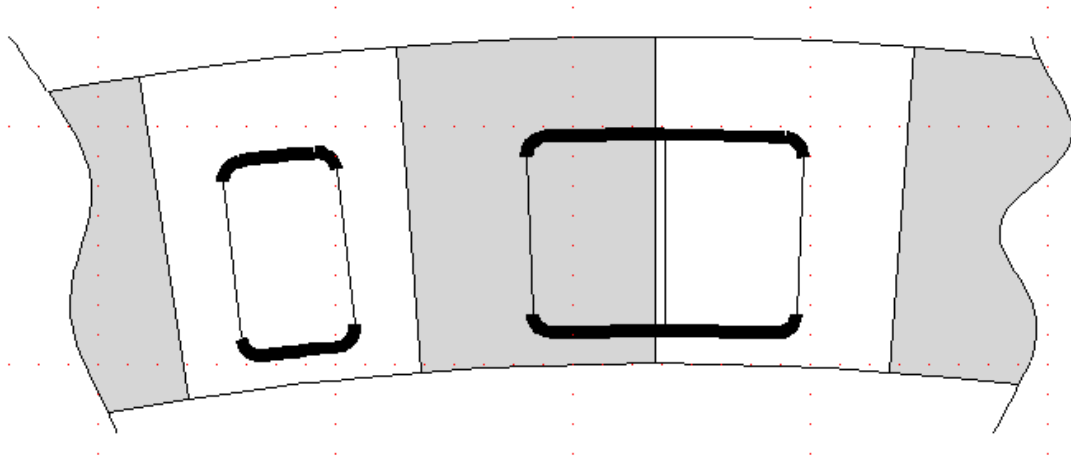


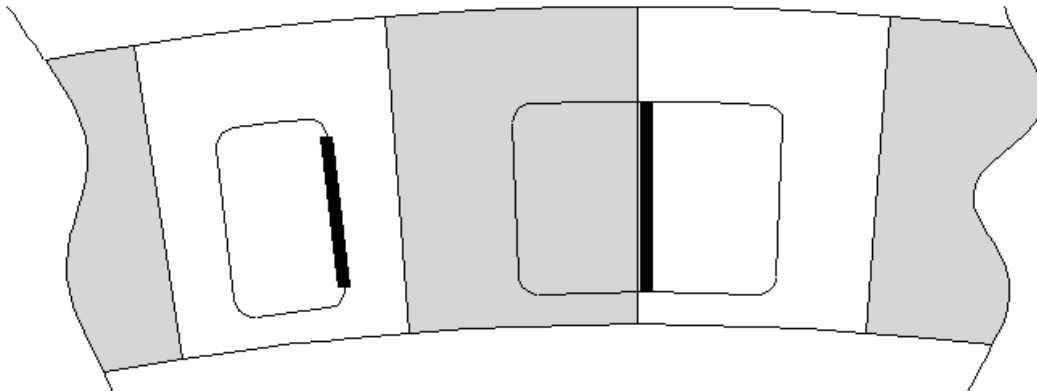
Instructions for optional detailed interior parts of the Tintin* Moon Rocket

If you wish to install the optional interior details for the Tintin* Moon Rocket, begin by making part 1 as described in the main instructions. All optional parts are found on sheets 10 and 11. A diagram of the complete interior is on the last page of this document. Detailing begins with part 2 as described below:

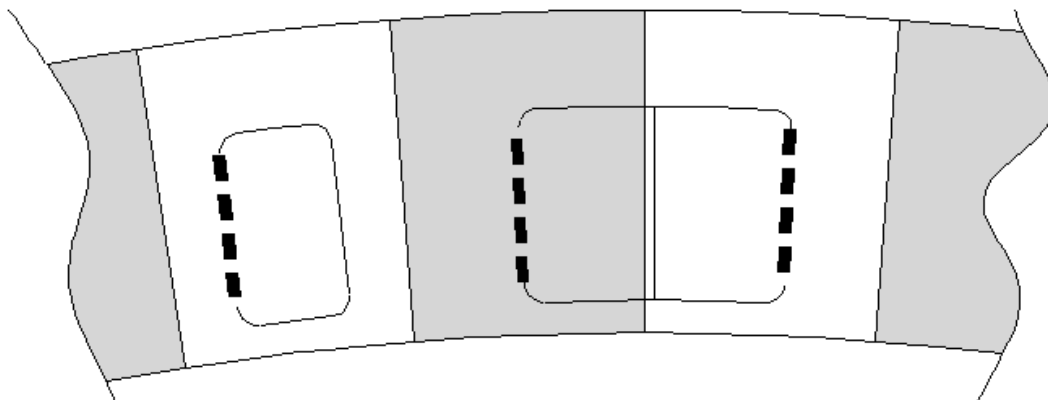
- A. Cut out part 2 and, before doing any gluing, cut the portions of the door openings shown in the figure below in bold lines. DO NOT cut any of the long straight door edges.



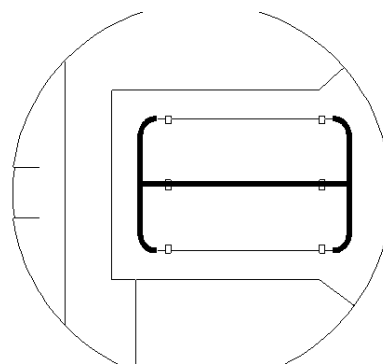
- B. Form the part around a large dowel or other cylinder until it is in the final cylindrical form.
- C. Cut the two straight door edges shown in bold lines in the figure below. Try not to flatten out the curvature in the part while making the cuts.



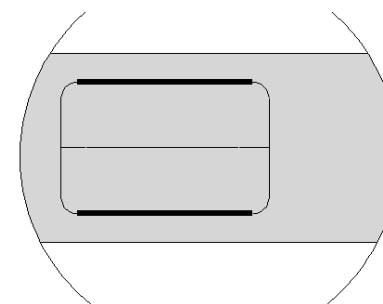
- D. Using a blunt knife or burnishing tool with a small tip, crease the two outer straight edges on the large doors as shown with bold dashed lines in the figure below. These doors will open outward about 90°, and may be bent to that position now just to set the bend. Try to preserve the curvature in the open doors.



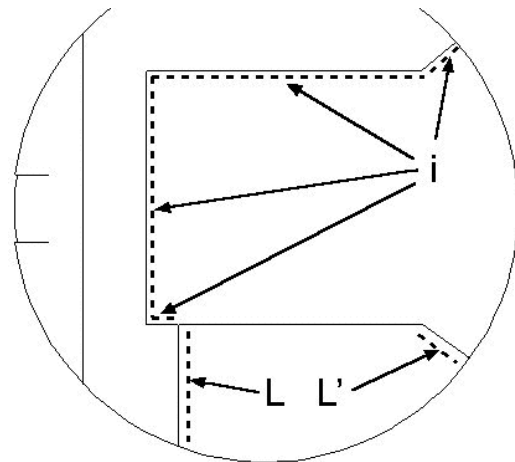
- E. Using the same tool, crease the straight edge of the smaller door as shown with a bold dashed line in the figure above. This door will eventually open inward, so bend the door inward along the crease to set the fold and then pop it back through the opening so it opens slightly outward and is out of the way for the remaining steps.
- F. Laminate part 2c with its doubler, with the glue on the unprinted faces. Laminate part 2g just like any other bulkhead. Cut out the outlined area in the lower right-hand corner of sheet 10 containing parts 2d, 2h, 2s, and 2w and laminate to heavy cardboard so that it finishes about 0.030" (0.8mm). Set all the laminations aside to dry.
- G. Use parts 2a and 2b to glue part 2 into a tapered cylinder in the usual fashion. Be careful that the upper edge of part 2b is smooth and does not extend up into the door openings. There must be room for the thickness of part 2c between part 2b and the lower edge of the doors or the smaller door will jam, and the edge of the floor will show through the cargo door opening.
- H. When part 2c is dry, cut the part to the outline. As usual, cut the slight indentation as marked to provide relief for part 2a. Cut the edges of the cargo hatch as shown by bold lines in the upper figure to the right. Turn the part over and use a sharp knife to score (cut half-way through) the hinge lines shown in bold lines in the lower figure. This score should connect the tips of the curved corner edge cuts. Flex the hatch doors upward (toward the detailed side of 2c) and set the doors open a little past 90°. Cut out part 2d and glue to the yellow area on 2c. Make sure the three inner straight edges line up with the marks on 2c; the curved edge of 2d should fall slightly shy of the curved edge of 2c. This is to leave room for part 2m later.



- I. Cut out the door bottom facing panels 2e and glue to the exposed undersides of the doors. Cut out the hatch coaming, part 2f. Score the line between the gray area and the white tabs. Fold the tabs down (mountain fold) and form the part into a round-cornered rectangle, the same shape as the cargo hatch opening, with the printed side to the inside. Join the ends with the small strip on the unprinted side. Glue the tabs to the lower face of 2c, framing the cargo hatch opening. Make sure the joined side of 2f is at the side of the opening closest to the edge of part 2c.



- J. Cut out the laminated part 2g to the outline. Cut out part 2h and glue to the yellow area of 2g. Again, align the three inner straight edges, and let the curved edge of 2h fall just shy of the curved edge of 2g. Set aside to dry.
- K. At this point, you have an “optional” option. When the model is finished, these detailed areas will get very little light, and your handiwork may not be seen well enough to be appreciated. With some extra effort, it should be possible to install LEDs to really make the work stand out. A yellowish or white type of LED would be best, and nine would be required (7 in the ceiling of the loading deck, part 2g, and two in the cargo hold, on the bottom of part 2c on either side of the cargo door opening). I can’t tell you how to do this, as I haven’t done it myself, but I think the results would be outstanding. If you cut out the 7 ceiling light areas (small yellow circles in 2g and 2h, the LEDs can be glued to the top surface, shining through the holes. The switch and batteries could be mounted on the top of part 2g and accessed by simply not gluing on the assembly of parts 6-10 in the final build. My build of the model still has this joint unglued and nobody can tell (unless they try to pick it up!). It also makes the model easier to transport. The two LEDs in the cargo bay (part 3) can just be glued to the underside of part 2c on either side of the cargo hatch and fed by wires that pass through holes cut in the white areas of parts 2c and 2g. If the LEDs in the cargo bay are kept toward the front (toward the external cargo door) they cannot be seen from outside. If anyone wants to try this, be sure to let me know how it works out and I’ll pass on your results in the instructions in the future (with credit to the developer, of course!).
- L. Back to our muttons. Cut out part 2i and crease on the indicated lines. If you want to detail the airlock control room, cut out the rectangular window in 2i, cut out the window frame (2j*) and glue over the printed frame for a 3-D effect. You can also add the NO SMOKING sign (in French, of course) if you wish, gluing it with its upper corners at the tick marks on the back wall of 2i. (The sign is not prototypical, but I appreciate the irony of warning somebody in a space helmet not to smoke in a vacuum.) Fold the wall 2i on the creases. The two outer creases are for mountain folds of about 45°, while the two inner creases are for 90° valley folds. Cut a rectangle of heavy celluloid to the size of the template 2k* and glue to the backside of 2i to glaze the window. Make sure this is secure, as you will never have another chance to fix it if it falls off later. Apply a tiny bead of glue along the four edges of 2d shown by “i” in the figure to the right, and glue part 2i into place. Don’t worry about the free edges that are touching part 2c beyond 2d, we’ll get to those in a minute. Needless to say, dry fit and adjust everything before gluing!
- M. Cut out part 2L and make the creases shown. Make the left-hand valley fold 90° and the right-hand one 45°. Apply a tiny bead of glue to the remaining interior straight edge of part 2d (at “L”, in the figure to the right), and apply dots of glue to the back face of 2L where it will lay against the back face of 2i, and glue it back-to-back with part 2i. Try to make sure that the short angled segment of 2i/2L follows the line on the floor (2c). You will note that no instruction has been given to open up the interior air-lock doors, and this is not recommended. The chance that the two images of the doors will line up accurately is remote, and in any case, having an interior door open while the exterior doors are also open would be an outrageous violation of air-lock safety protocols.
- N. Apply glue to the appropriate edges of 2h, and glue the top edges of 2i/2L into the upper bulkhead 2g. When these joints have dried, use a pin to apply some tiny dots of glue to the



edges of 2i/2L where they are floating loosely on 2c and 2g to hold them in place. A glue fillet can be applied along the short panel of 2L (between the small air lock chamber door and the cargo door) at the outboard edge, which will not be visible from the outside. See the dashed line in the figure above labeled L'.

- O. If you have opened the window in 2i, cut out the air-lock control room wall, part 2m, and form it to a curve with the printed side inward. Adjust the vertical dimension of 2m so that it will fit against the edges of 2d and 2h, between the faces of 2c and 2g without overlapping those two edges. There is a tick mark on the lower edge of 2m, just under the ladder. Align this tick mark with the one on the gray area of part 2d. Apply glue to the curved edges of 2d and 2h and glue 2m into place. If you intend to illuminate the interior of the model as suggested in paragraph K, you should paint the outer surface of 2m black, or laminate very thin aluminum foil (like that peeled from a gum wrapper. Kitchen foil will be too thick) to it at this time. Test the fit of the 2c through 2m assembly into part 2. The lower face of 2c should rest on the ledge formed by the upper edge of the joining strip 2b. The upper surface of 2c should be just below the door openings. Sand the edges of 2c and/or 2g as required. DO NOT glue this assembly into part 2 yet!
- P. Make the creases in the two crane beams 2n and cut out the parts. Valley fold the creases, forming each part into a "C" section with the printed side on the inside. Glue the two "C"s back-to-back, forming a long I-beam. Cut out the upper beam cap 2o, and the lower beam cap 2p. Glue each to one of the unprinted faces of the I-beam. Try to keep the assembly as straight and untwisted as possible. Cut out the two crane beam supports, 2q, and form into small boxes. Glue one to each of the white rectangles on the beam cap 2o. The white areas of 2q should glue to the white areas on 2o. Set aside for later use.
- Q. Using a straight pin, pierce two pinholes in the black area of the crane traveler 2r. We will glue the hoist cable into those holes later. Cut out the traveler and form into a box. The tops of the two sides (with the tiny circles) should stick up well above the top closure flap. Cut out the two traveler drive wheels 2s from the laminated cardboard area and glue to the insides of the projecting traveler side plates. The two bumps (wheels) should be flush with the upper edge of the side plates, the printed faces of 2s should face each other, and there should be a slight gap between the lower (flat) faces of 2s and the top closure plate of the traveler box. Slide the traveler onto the lower cap of the beam to test the fit. It should be easily movable and removable. Cut out the crane motor shell 2t and roll into a cylinder as indicated. The part is too small to permit the use of joining strips, so you will have to form it fully and butt-glue the short edges together. Cut out the cover plate 2u, and glue to one end of the motor shell. Glue the other end of the motor shell to the white circle on the side of the traveler box.
- R. Make the two creases (very close together) on each of the crane hook parts 2v. Cut out each hook/pulley to the part shape and bend into a "z" shape as shown. If the hook part is against the table, the pulley part should be about 0.5mm above the table. Glue the two hook parts together back-to-back, leaving the pulley parts unglued and separated by about 1mm. Cut out the pulley wheel 2w from the laminated cardboard area and glue between the pulley faces. Try to center 2w with the pulley shapes, but be sure to leave enough room between the bottom of 2w and the point where the hook parts come together to pass a small thread through later.
- S. Make part 3 as described in the main instructions, using parts 3a and 3b, but before gluing 3c into place, cut out part 3d and form into a ring using the joiner 3e to connect the ends. Glue the ring to the upper (inside) surface of part 3c, just surrounding the circular opening. Now install part 3c into the cylinder. Make sure the ring 3d is on the upper side of 3c, inside the cylinder of 3. Laminate the cargo floor 3f just like the other bulkheads and cut out to the final shape, again making sure to leave the relief for the strip 3a. Apply some tacky glue to the upper edges of 3d and drop 3f down into 3, printed side up. Working with a finger through the hole in 3c, make sure the relief in 3f fits around the strip 3a. Cut out the cargo hold inner

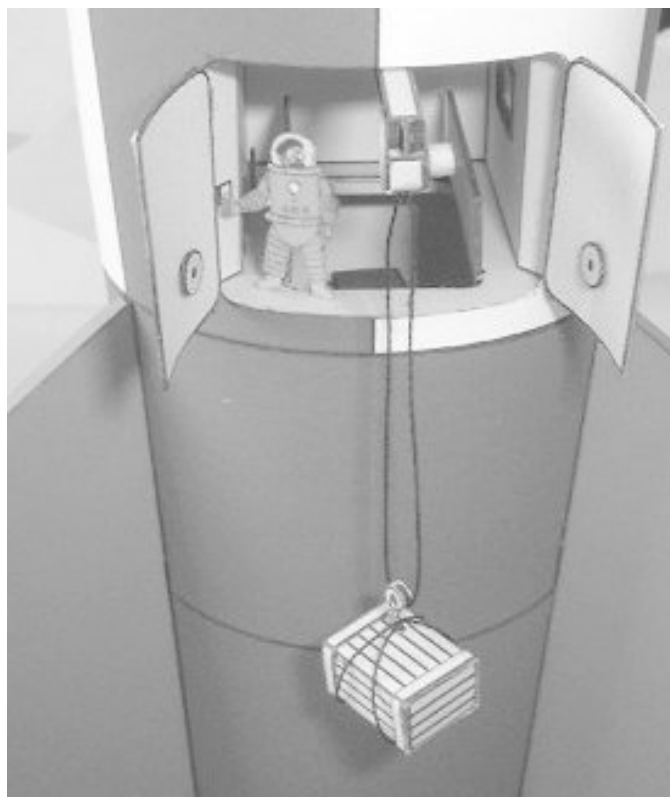
wall 3g and form into a cylinder with the printed side inside. Temporarily close the cylinder with low-tack tape. DO NOT glue the joining strip 3h or filler strips 3i* to this part yet. .

- T. Test the fit of part 3g by inserting part 3h into part 3 against the wall and then inserting part 3g. Make sure part 3h is between part 3 and 3g. 3g should slide all the way down until the bottom edge rests on the cargo deck 3f. If it won't go all the way down easily, remove 3g and cut away a strip about ½ mm wide from the seam edge, re-tape and try again. Unless your paper is very thick, this should not be a problem. When the fit is satisfactory, remove the tape and permanently glue 3g into a cylinder using the joining strip 3h. Make sure the lower end of 3h is flush with the lower (narrow) end of 3g, and the upper end falls well below the upper end of 3g. If (and only if) the lower end of 3g seems to be a very loose fit at the bottom, glue one or more of the filler pieces 3i* around the outside bottom of 3g. In general, these won't be needed. Make sure to position them to the sides (butting to either side of 3h) so they do not interfere with part 3a. If you intend to install the lights in the cargo space as discussed in paragraph J, you should paint the outside surface of 3g black, or wrap with aluminum foil (ordinary kitchen foil will be OK here). DO NOT glue 3g into part 3 at this time.
- U. Now, temporarily insert part 2 into the top of part 3. Drop part 3g into the top of part 2 and make sure that it will drop all the way into contact with part 3f. If it can't be pushed easily past the tabbed joining strip between part 2 and 3, then cut off the top of part 3g until it will go all the way to the bottom, clearing the tabs of part 2. Don't worry about the appearance of the top edge of 3g; this area will not be visible after assembly. If you have to cut this part of 3g off, then do so, and then disassemble 2 from 3 and glue 3g into 3, using just a few drops of glue at its top edge. The seam in 3g should be to the front, i.e., on the opposite side as the seam in part 3. If part 3g does not require any surgery, then just remove it and set it aside.
- V. If you intend to add the various elements of cargo, this is a good time to make some boxes and crates (see paragraph X below) and glue in piles on the cargo floor 3f. After this, you can now glue part 2 to part 3. If part 3g is still a separate piece, push it into part 2/3 until it bottoms out, keeping the seam in part 3g opposite to the seam in 3. Lock it in place with a few drops of glue at the upper edge, against the tabbed joiner strip 2b.
- W. Laminate the five handwheels 2x to double thickness. Cut them out to the smaller diameter. Cut a strip of 0.5mm cardboard 0.5mm wide, and then cut off five pieces 0.5mm long, making tiny cubes. Glue one cube to the center of each handwheel on the back (undetailed) side. Apply a dot of glue to each cube and glue the wheels into place at the central spot on each airlock door in parts 2i and 2L. Now the control room/loading deck can be installed. Drop the 2c-through-2L assembly into the top of part 2 and rotate it until the relief in part 2g is aligned with the seam joiner 2a. Apply two or three drops of glue around the joint between 2g and 2 just to protect against casual bumping while completing the model. This part will be firmly locked in place when part 1 is glued in place, so there is no need to use any significant amount of glue in this joint. When all is in place, push the small airlock door in part 2 inward through the opening to reveal some of the interior of the airlock as shown in the picture below.
- X. Position the external cargo doors in about a 90° opened position. Cut out the door liners 2y and form to the same curvature. Apply some glue around the edges and glue into place on the inside surface of the doors. Glue the two remaining handwheels into place at the dots on the inner surface of the doors.
- Y. Cut out the two green instrument boxes 3j and form into boxes. Cut out the 12 cargo crates 3k and form into boxes. Wrap the reinforcing cleats 3L around the ends of 3k if desired for a more 3-D appearance. Cut out the three blue instrument cases 3m and form into boxes. Cut out the three gray cases 3n and form into boxes. Additional boxes and crates can be supplied by reprinting sheet 10 and/or 11. Use some in the interior cargo bay, and reserve a few for a diorama around the base of the model, as shown in paragraph below.

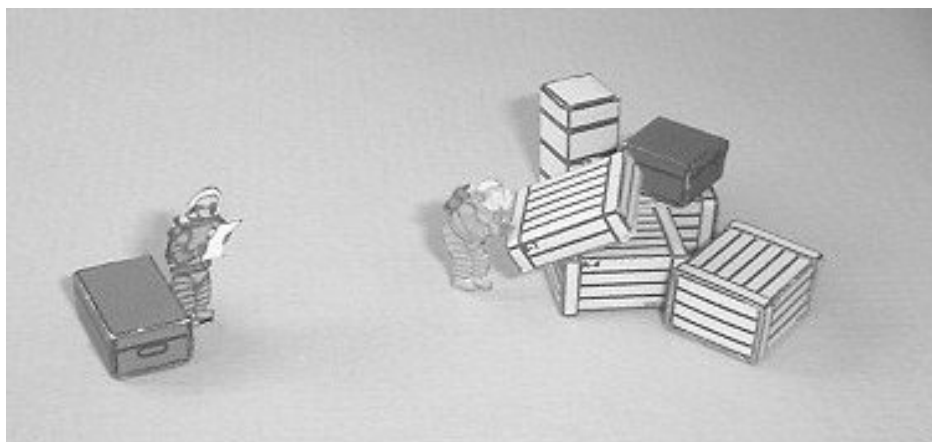
- Z. Place the 2/3 assembly upside down on end and apply a dot of glue to the tops of the two crane beam support boxes 2q. Glue these box faces against the two white rectangles in the top bulkhead 2g, and let dry. Cut a piece of fine black thread about 100mm (4") long and thread one end through the pulley part of the crane hook 2v. Apply a drop of CY glue to each end to stiffen the ends and let set. Now apply another drop to one end and insert the end into one of the pierced pinholes in the black area of the crane traveler box 2n. Hold it so it goes into the box square to the surface until it sets. Repeat with the other end of the thread in the other pinhole. Cut two pieces of the thread 50mm (2") long. Glue one end of one of the pieces to the bottom surface at one end of a cargo crate 3k in the corner formed by the surface of 3k and the edge of the cleat strip 3L. Bring the thread up loosely over the crate, around the other side and glue the free end to the crate right where the first end was glued, forming a sling. Glue the other thread to the other end of the crate in the same fashion. Bring the middles of the threads together above the top of the crate and hook the two threads with the crane hook 2v. It probably wouldn't be a bad idea to lock the threads into the hook with a drop of glue. The crane traveler can now be slipped onto the crane beam, with the crate hanging below.
- AA. Cutout figures of three of the crewmembers have been provided on sheet 10. They can be laminated to make simple stand-up figures, or cut out to the exact outline, as I chose to do. The figure of Captain Haddock* can be positioned in the cargo loading area, attached to the deck with drops of glue on his feet, and his extended hand attached to the wall at the crane control box with another drop of glue. A number of boxes and crates can be glued to each other in a random pile, and the Tintin* figure glued to one of the boxes. Likewise, the Prof. Tournesol* figure can be held up by gluing his leg to an instrument case. These ideas can be seen in the pictures below as one suggested representation of a specific incident in the story.
- BB. You can now return to assembling the rest of the model using the regular instructions in "Tindmins.pdf", starting with part 4. An exploded diagram of all the optional parts is given on the final page of this set of instructions.



Interior of the small airlock, showing position of typical handwheel



Captain Haddock® controlling the cargo crane



Tournesol® and Tintin® stacking cargo

*Tintin, Captain Haddock, Prof. Tournesol © Casterman, Paris

Assembled interior

