

**Traction Engine**

(UK) Symbols in these instructions. (FR) Symboles des instructions. (ESP) Símbolos en estas instrucciones. (IT) Simboli in queste istruzioni. (Ger) Symbole in dieser Anleitung.



(UK) Waiting time.  
(FR) Temps d'attente.  
(ESP) Tiempo de espera.  
(IT) Tempo d'attesa.  
(DE) Wartezeit.



(UK) Glue.  
(FR) Coller.  
(ESP) Pegar.  
(IT) Incollare.  
(DE) Leimen



(UK) Wax surface to lubricate.  
(FR) Appliquer la cire sur cette surface.  
(ESP) Aplica la cera sobre esta superficie.  
(IT) Applicare la cera su questa superficie  
(DE) Wax Oberfläche zu schmieren.



(UK) Don't glue.  
(FR) Ne pas coller.  
(ESP) No pegar.  
(IT) Non incollare.  
(DE) Nicht leimen.



(UK) Glue guard. Prevents glue getting between moving parts during build. Remove after 2 minutes.  
(FR) Piece de protection contre la colle. Pendant l'assemblage, éviter tout dépôt de colle sur les pièces en mouvement. Enlever après 2 minutes.  
(ESP) Protector contra el pegamento: impide que el pegamento se adhiera a las partes móviles durante la construcción. Quitarlo al cabo de dos minutos.  
(IT) Pezzo di protezione della colla. Durante l'assemblaggio evitare che la colla vada su parti non statiche. Rimuovere dopo due minuti.  
(DE) Karton. Verhindert das Eindringen von Leim zwischen die bewegliche Teile während der Montage. Zwischen die beweglichen Teile.

Helpful hints/conseils utiles/consejos utiles/suggerimentutili/nützliche tipps

(UK) Check all parts present in trays  
(FR) Vérifier que toutes les pièces soient présentes dans les bacs  
(ESP) Controlar que hay todas la partes en la caja  
(IT) Controllare tutte le parti presenti nel kit  
(DE) Bitte prüfen sie, ob alle benötigten teile vorhanden sind

(UK) Read all instructions and look at all diagrams  
(FR) Lire toutes les instructions et regarder toutes les figures  
(ESP) Leer las instrucciones y guardar a los diagramas  
(IT) Leggere tutte le istruzioni e guardare i diagrammi  
(DE) Lesen sie alle anweisungen und betrachten sie die schaubilder

(UK) Check assembly before gluing  
(FR) Vérifier le montage avant collage  
(ESP) Controlar el montaje antes de empezar a pegar  
(IT) Controllare l'assemblaggio prima di incollare  
(DE) Montage prüfen vor dem einklebern

(UK) Some parts may need sanding  
(FR) Certaines pièces nécessiteront d'être poncées.  
(ESP) Algunas piezas pueden necesitar ser lijadas.  
(IT) Alcune parti potrebbero aver bisogno di levigatura.  
(DE) Möglicherweise müssen manche teile geschliffen werden.

Colouring tips/conseils concernant l'application de peinture/ consejos para Pintar/ suggerimenti per colorare/lackiertipps

(UK) Do not apply paint to parts which move against one another. It is easier to paint some parts before assembling  
(FR) Ne pas appliquer de peinture sur les parties qui se déplacent l'une contre l'autre. Il est conseillé de peindre avant assemblage  
(ESP) No aplique la pintura sobre las partes que se tocan. Resulta mas facil pintar las partes antes de montar.  
(IT) Non applicare la pittura su quelle parti dove ce attrito con un'altra parte. è piu semplice pitturare alcune parti prima della fase di assemblaggio.  
(DE) Teile, die aneinander reiben, sollten nicht lackiert werden. Fertig lackierte teile sind off leichter zu montieren

New Symbols in our Instructions

Visit our website to view instructional videos where you see this symbol.  
[www.timberkits.com](http://www.timberkits.com)

Pay special attention to this section.



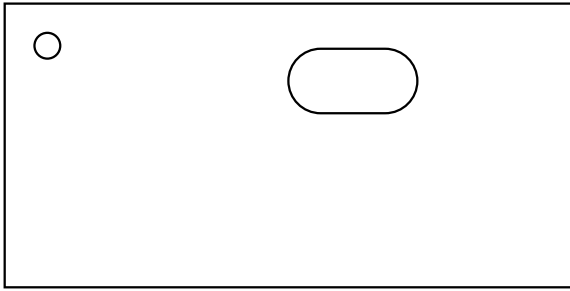
If you need help or advice you can call our Timberkits Human Support System!

Luise Willis

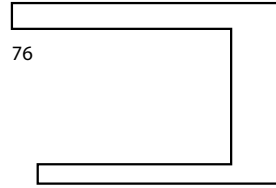
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Or you can visit our website for tips, advice and instructional videos. All these can be found in Resources/Advice Videos on our website.

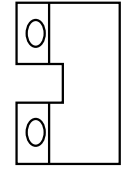
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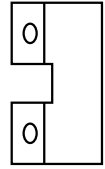
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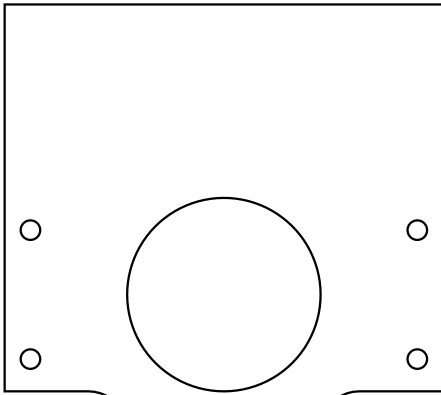
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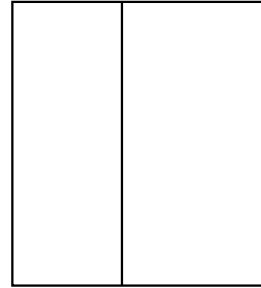
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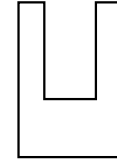
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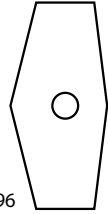
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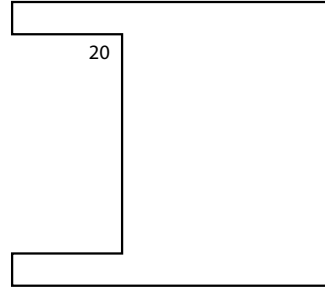
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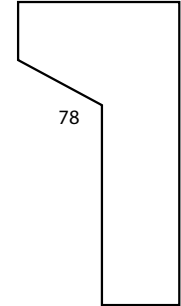
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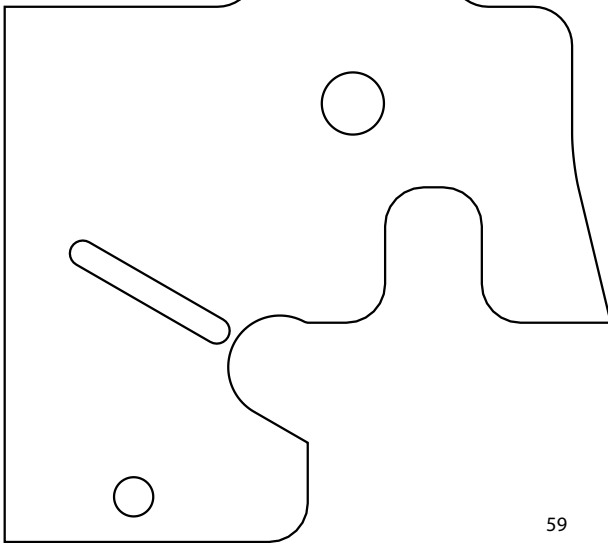
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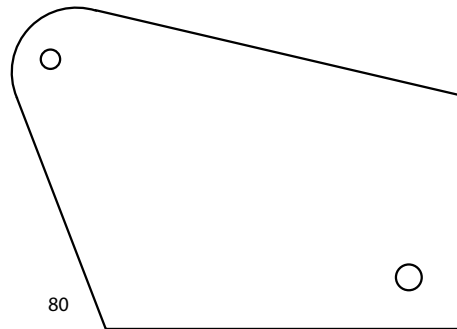
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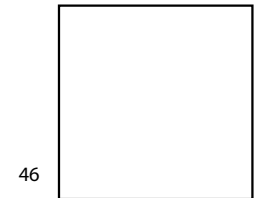
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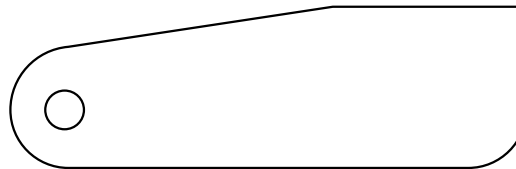
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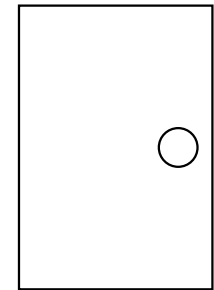
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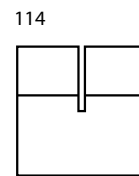
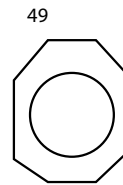
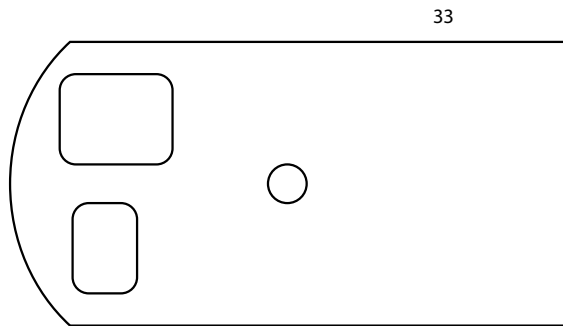
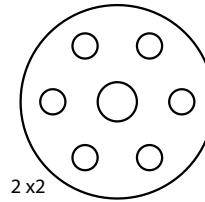
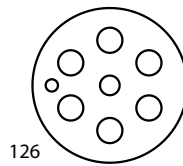
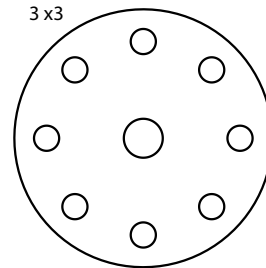
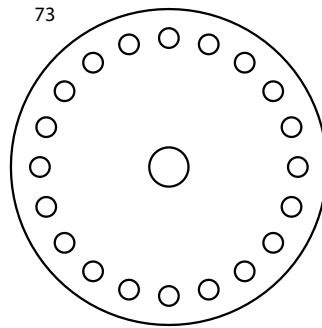
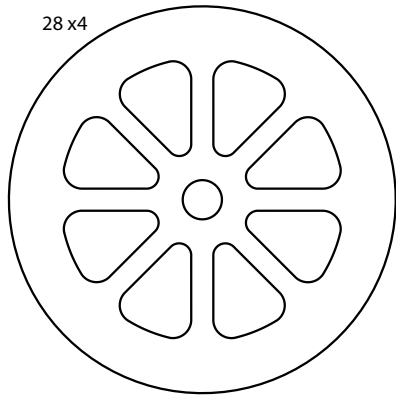
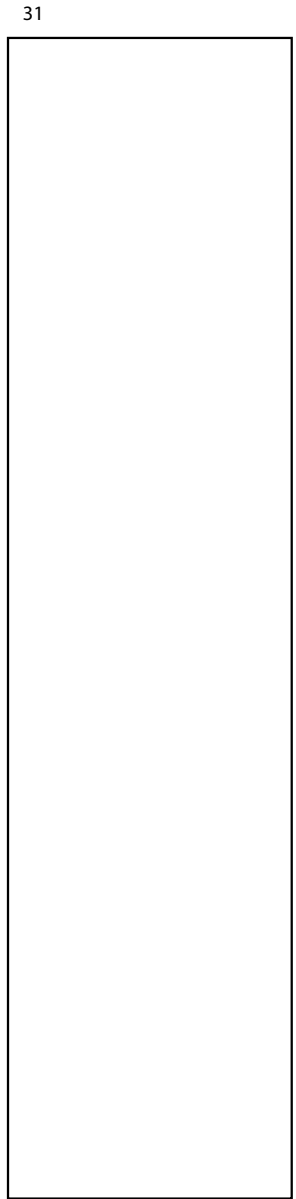
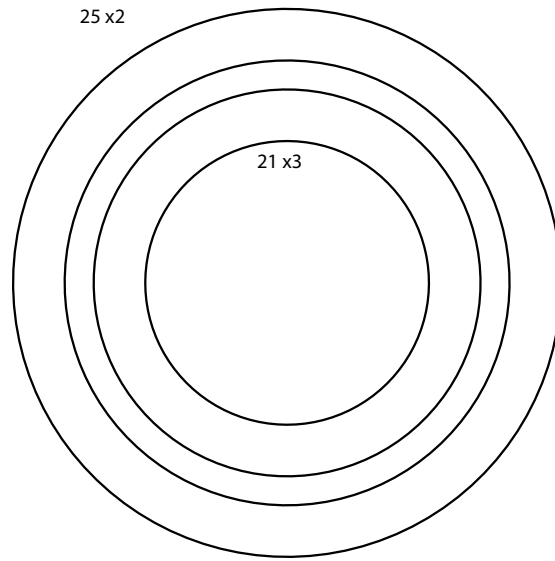
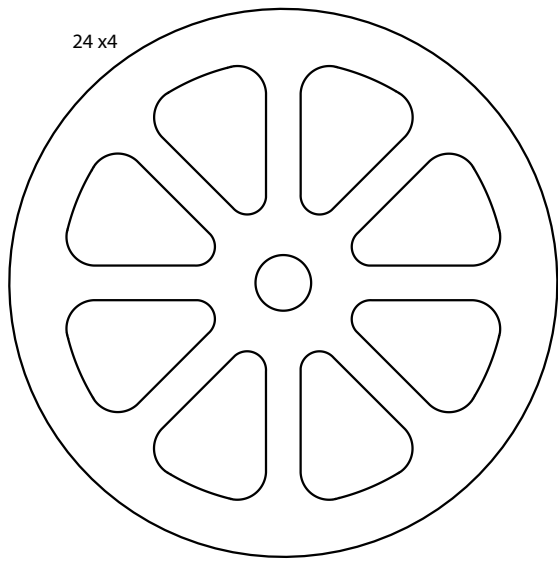


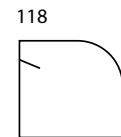
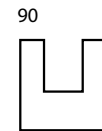
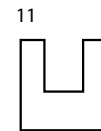
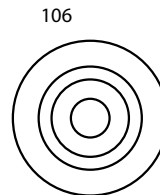
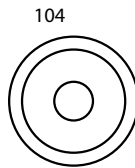
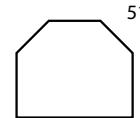
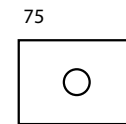
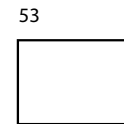
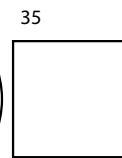
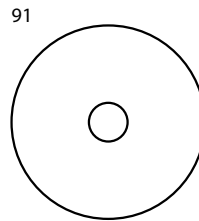
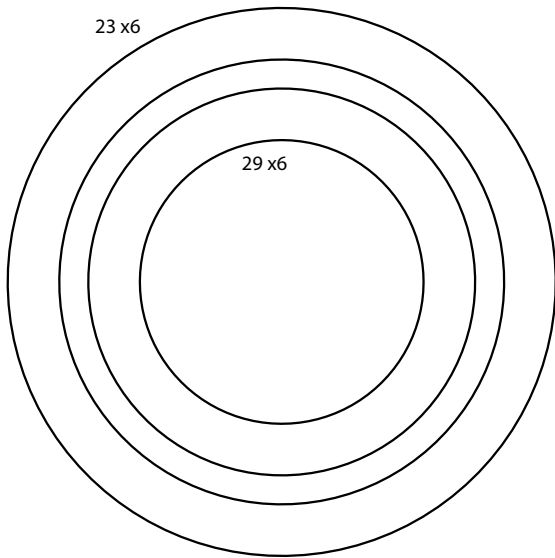
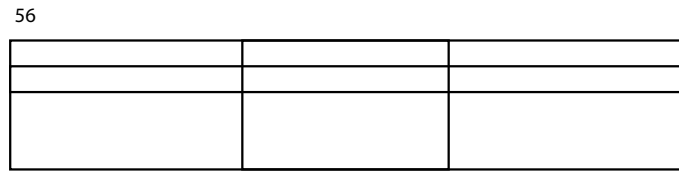
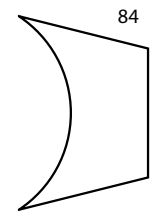
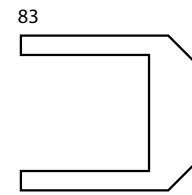
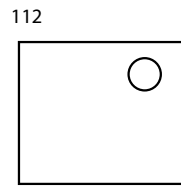
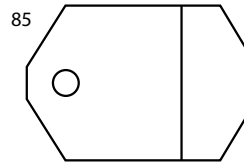
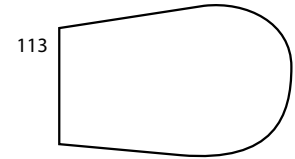
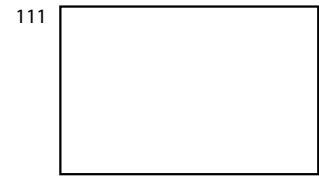
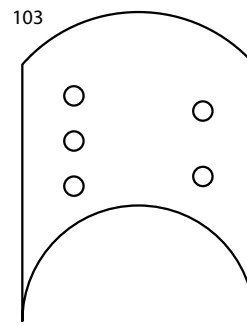
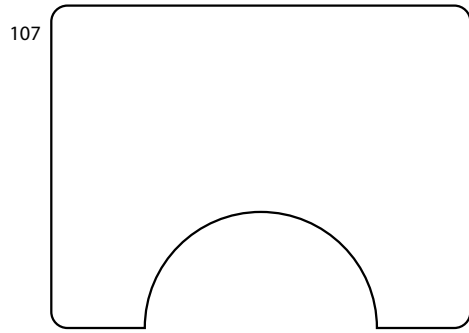
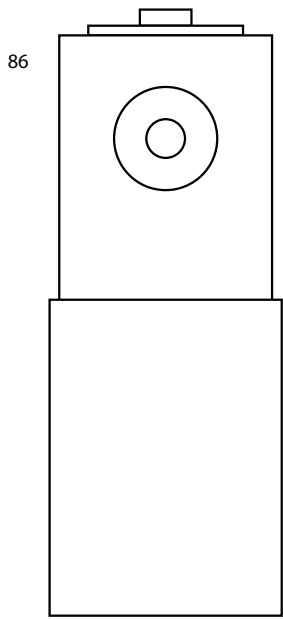
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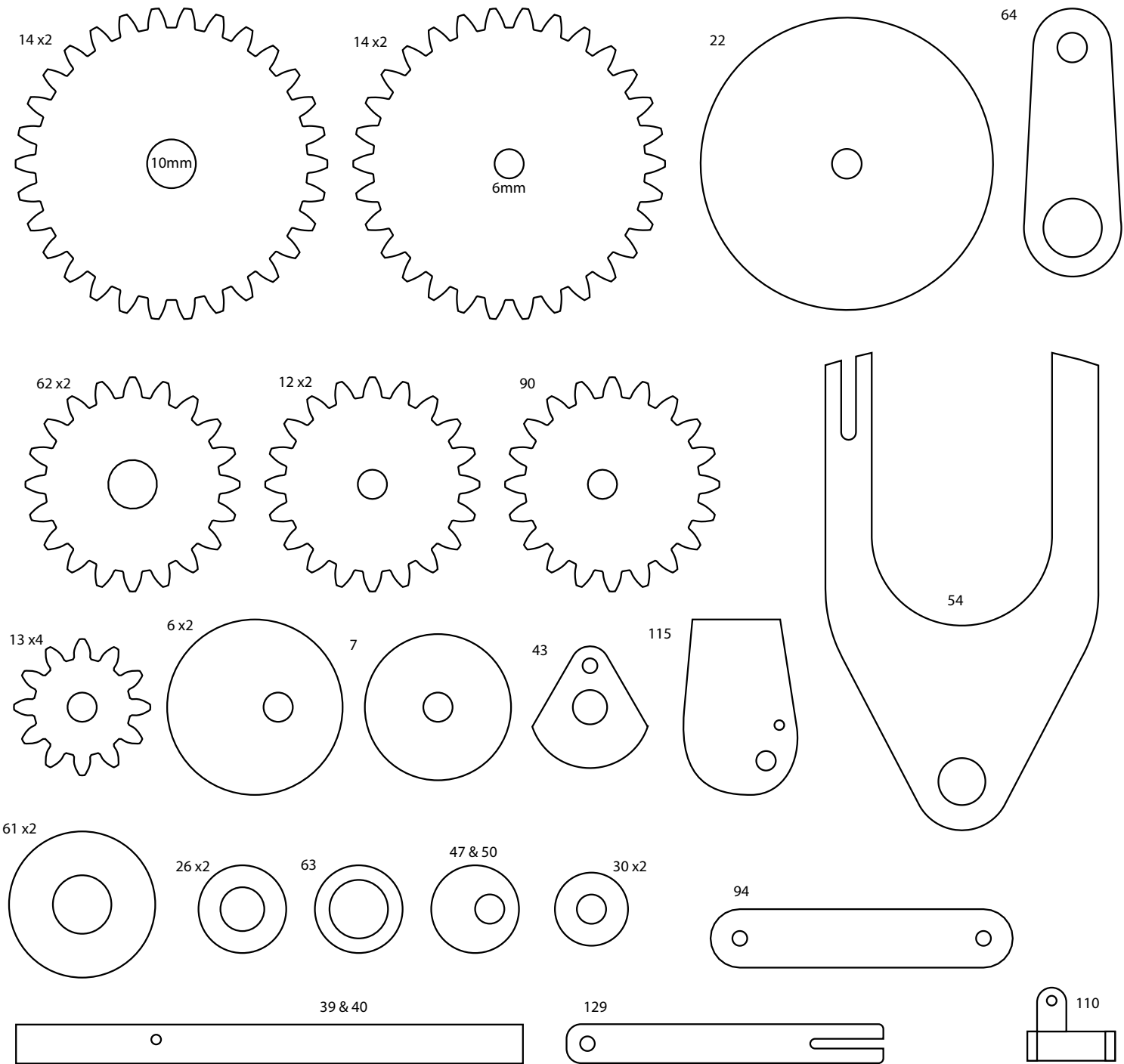


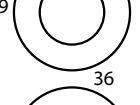
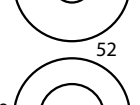
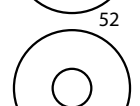
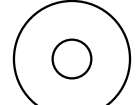
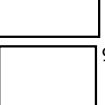
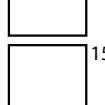
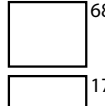
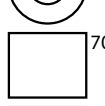
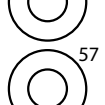
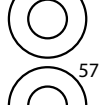
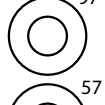
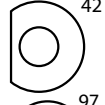
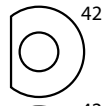
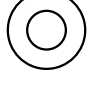
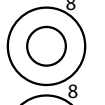
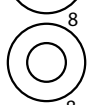
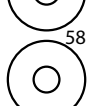
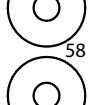
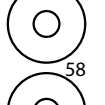
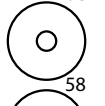
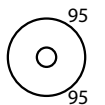
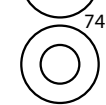
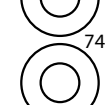
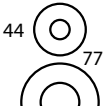
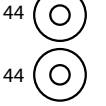
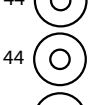
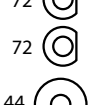
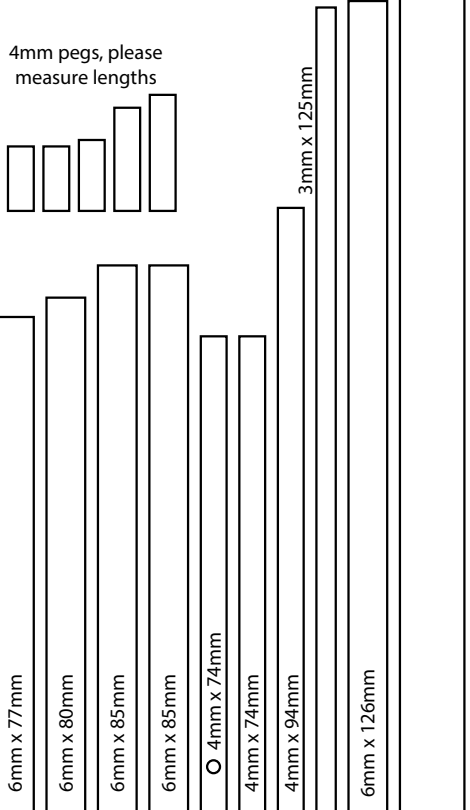
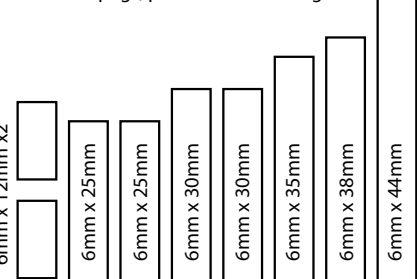
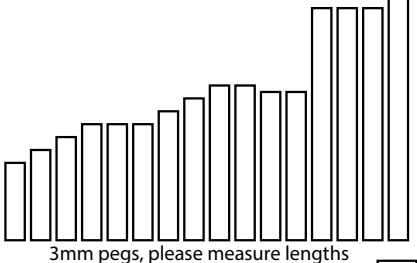
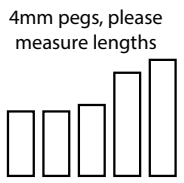
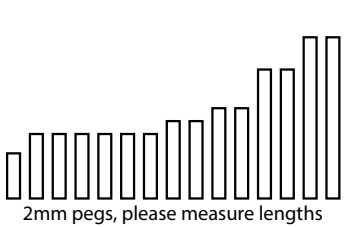
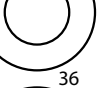
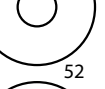
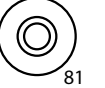
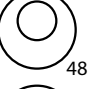
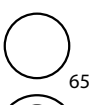
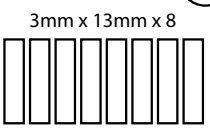
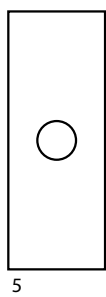
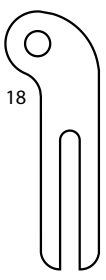
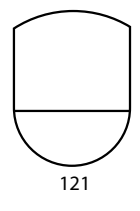
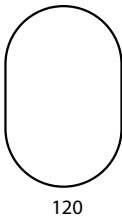
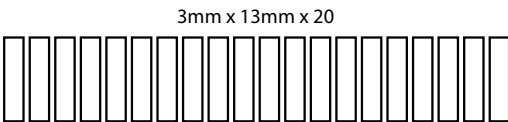
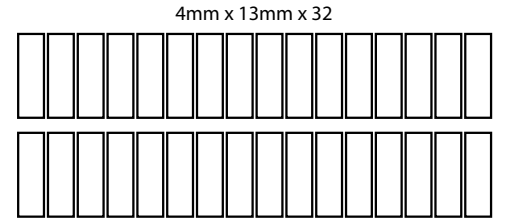
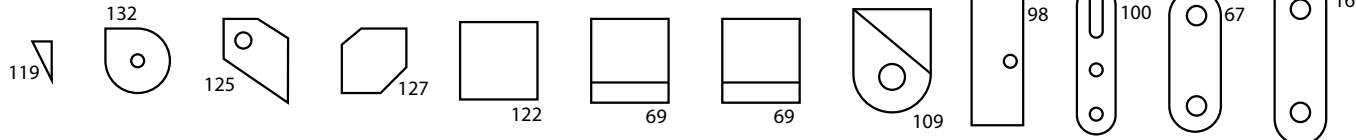
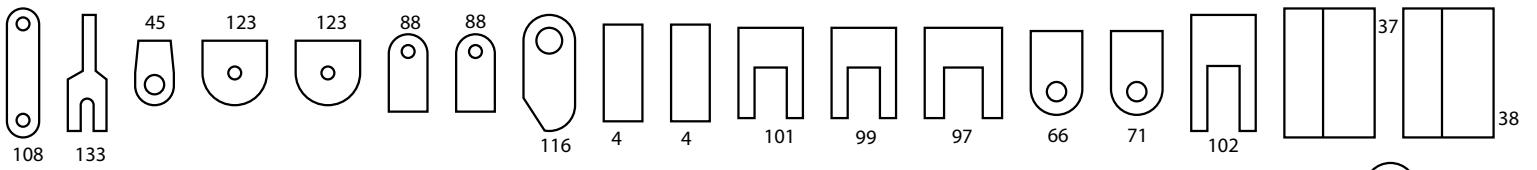
1

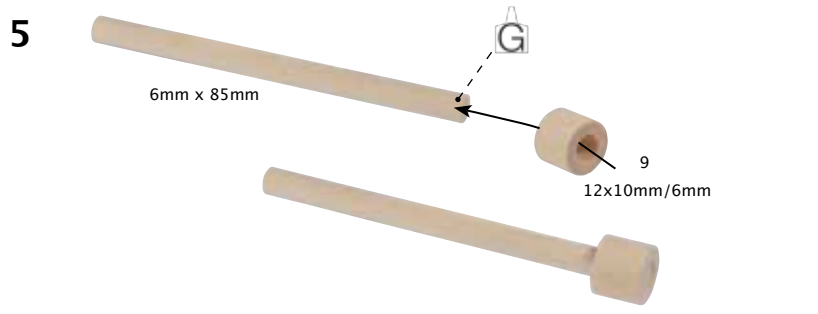
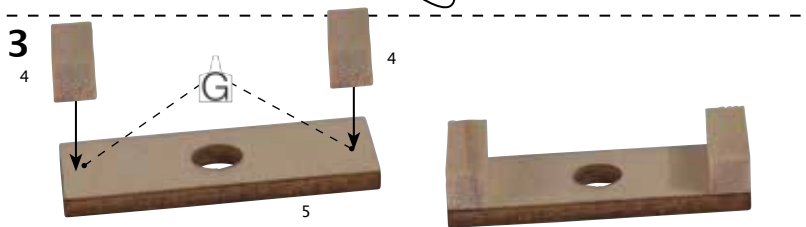
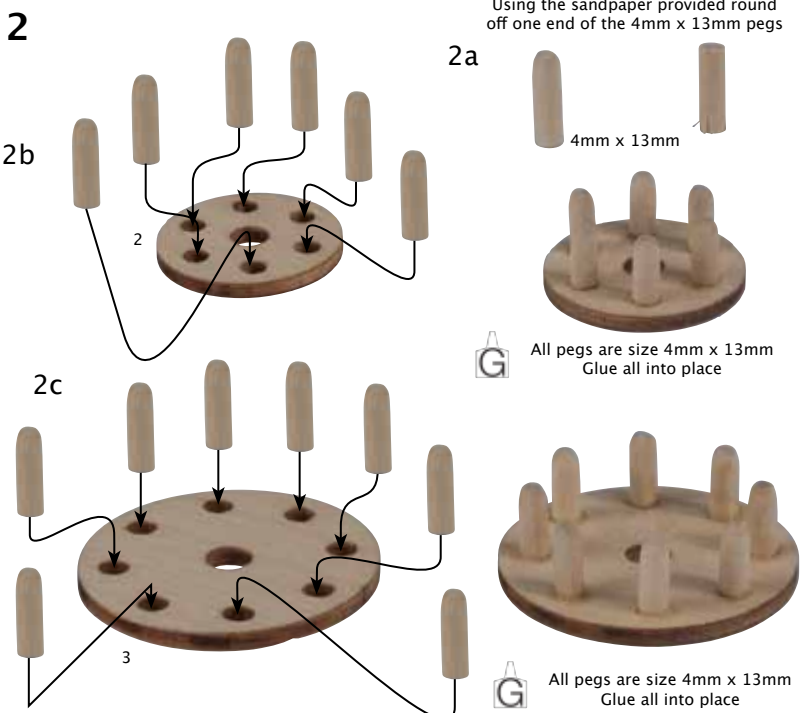
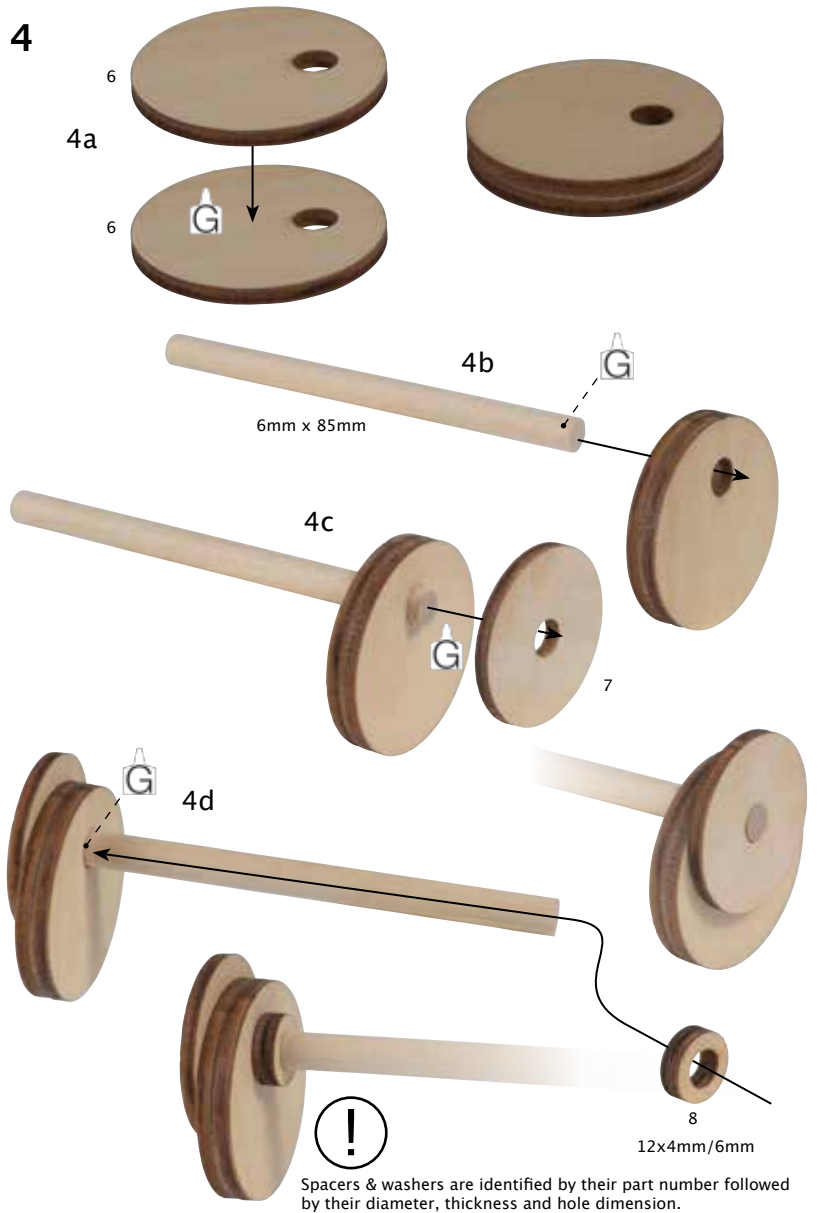
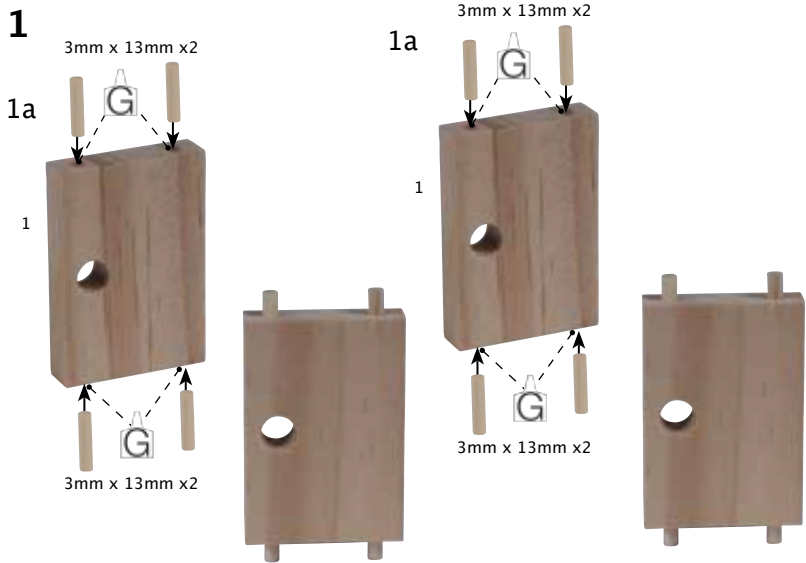






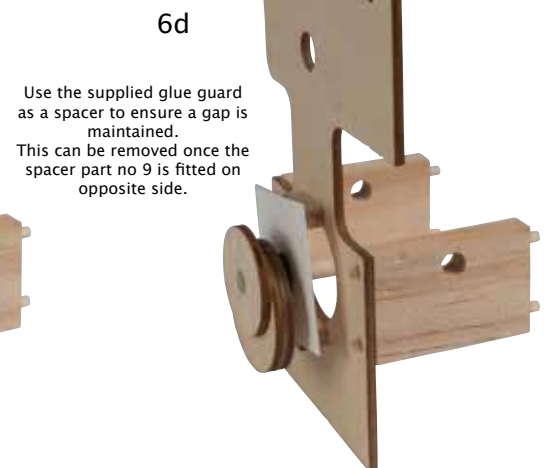
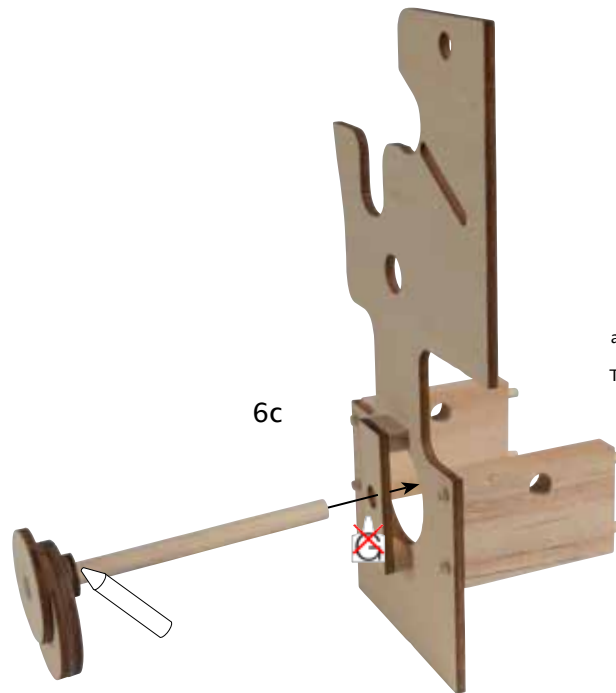
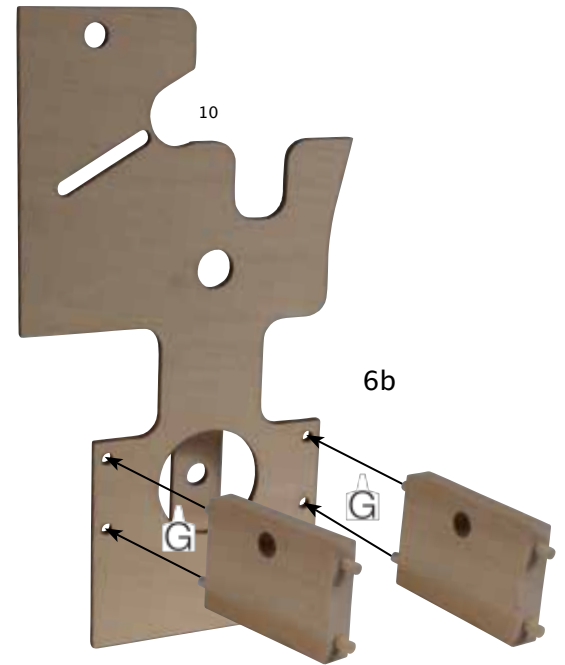




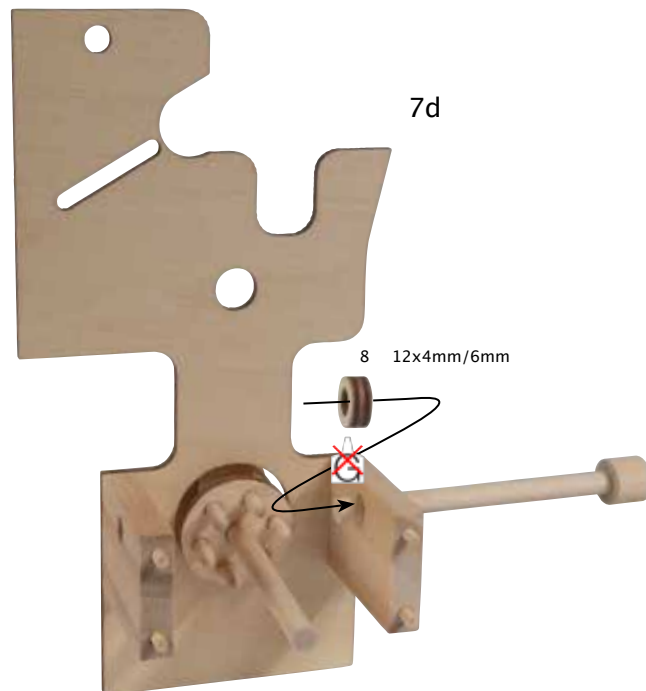
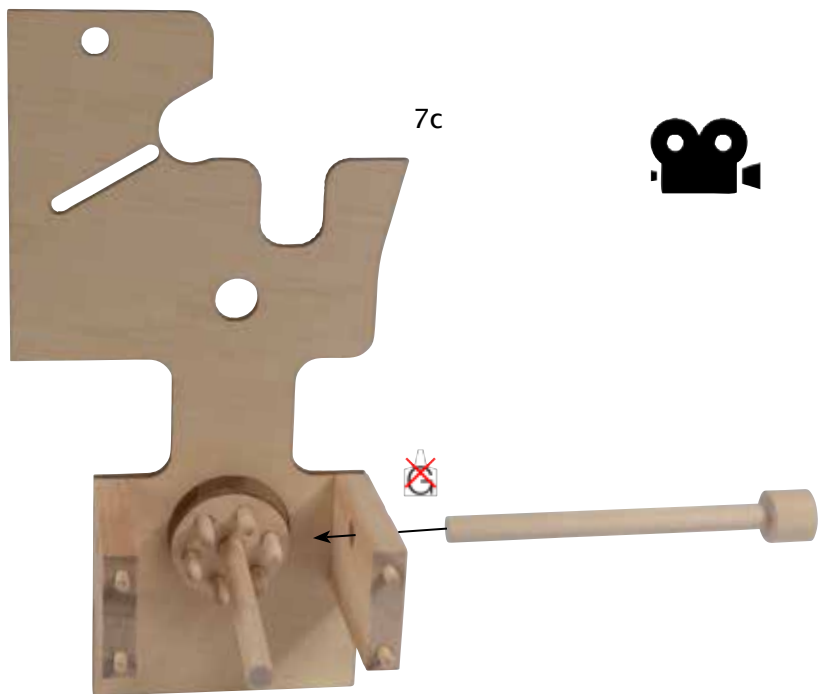
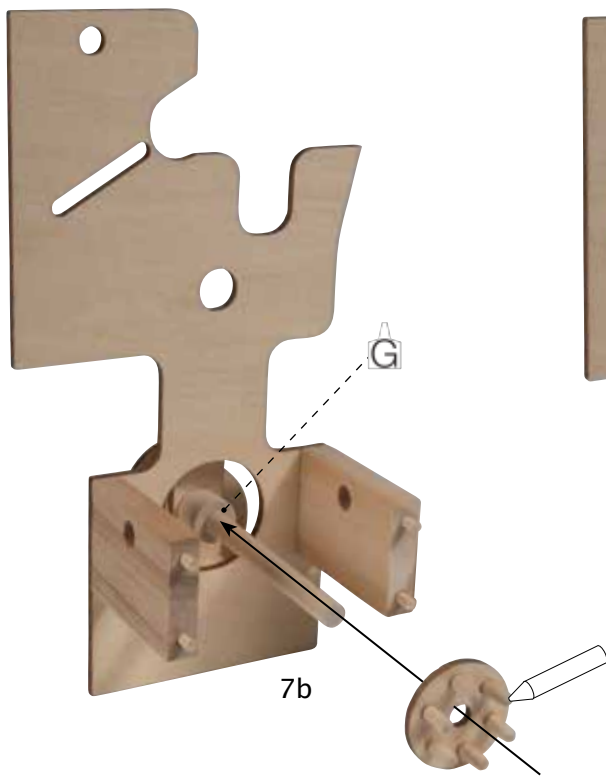


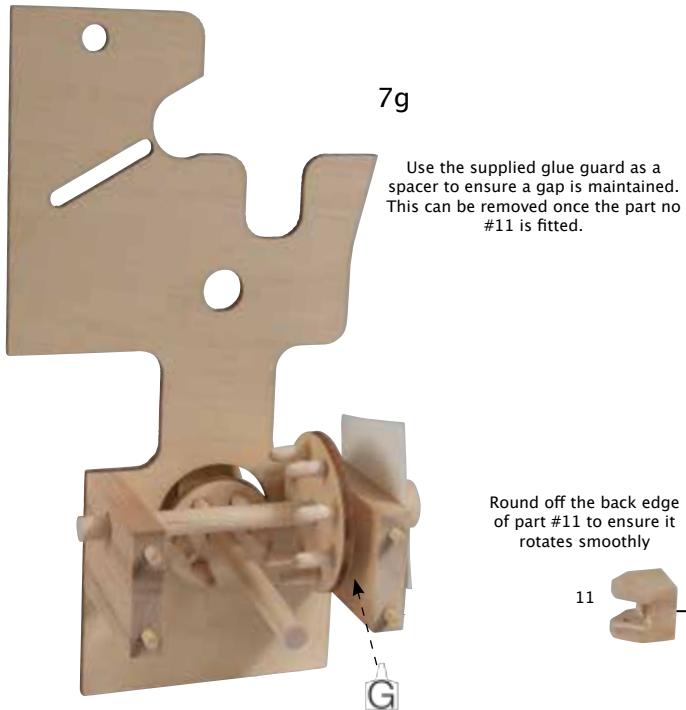
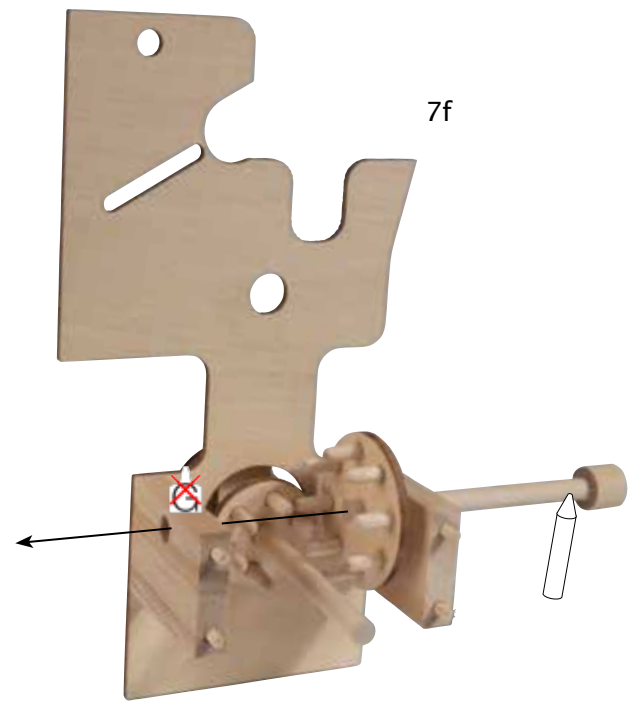
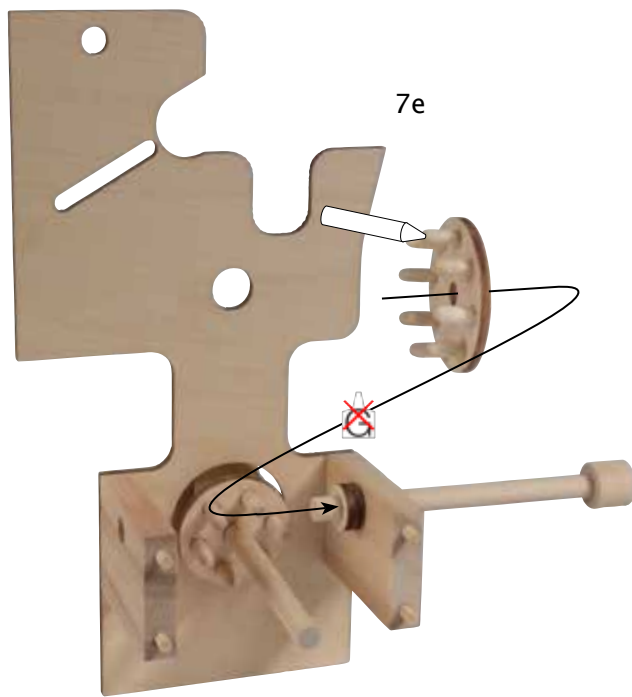


6



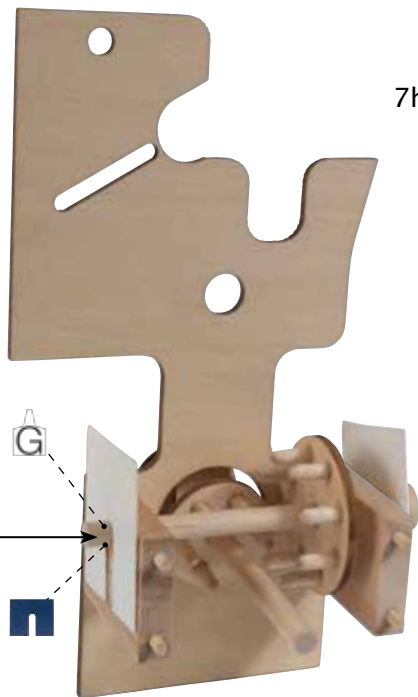
7





Round off the back edge of part #11 to ensure it rotates smoothly

11

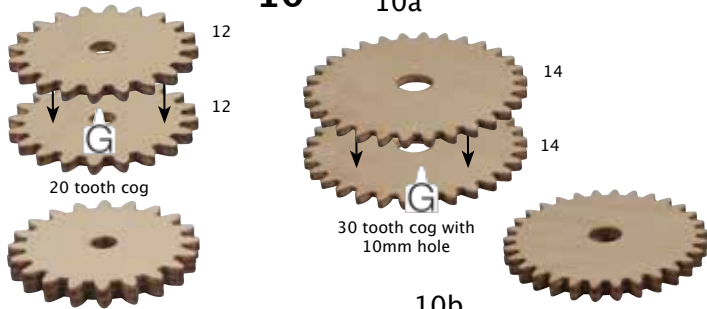


Carefully pull the toothed wheel away so that you can glue it to the spacer it butts up to. A glue guard is recommended during this stage, but not shown.



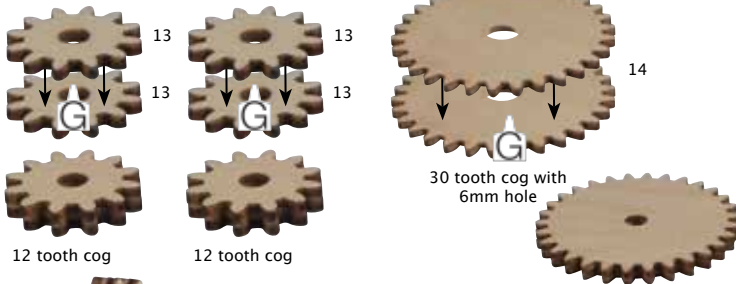
For sections 8, 9 and 10 ensure that when gluing cogs together all the teeth are lined up correctly. Failure to do so will prevent the model from working correctly.

8

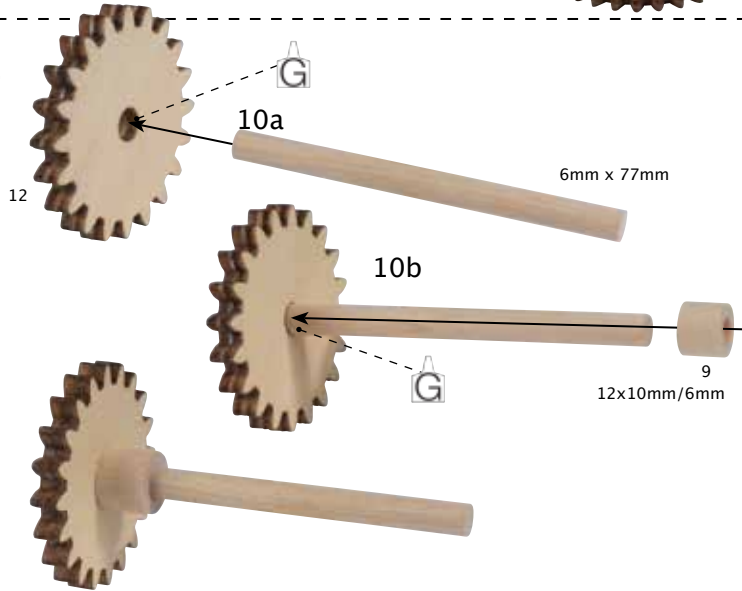


Use this one in section 11.

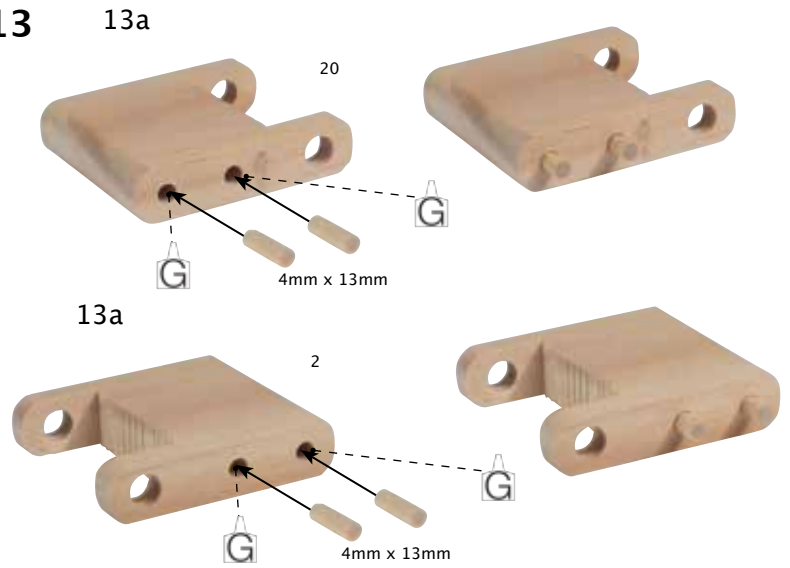
9



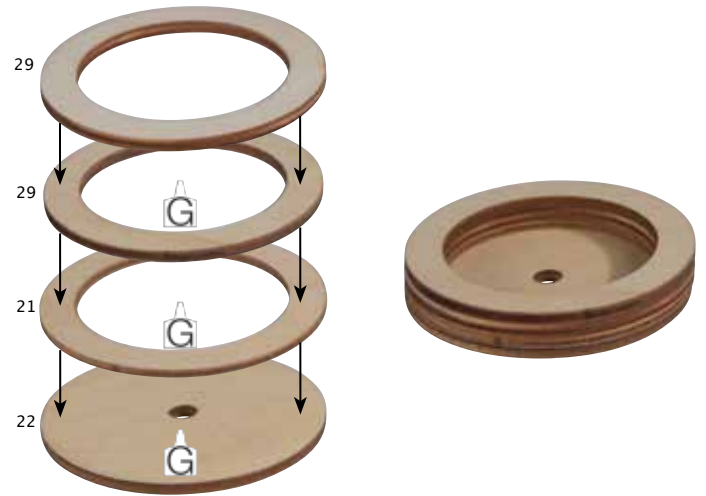
11



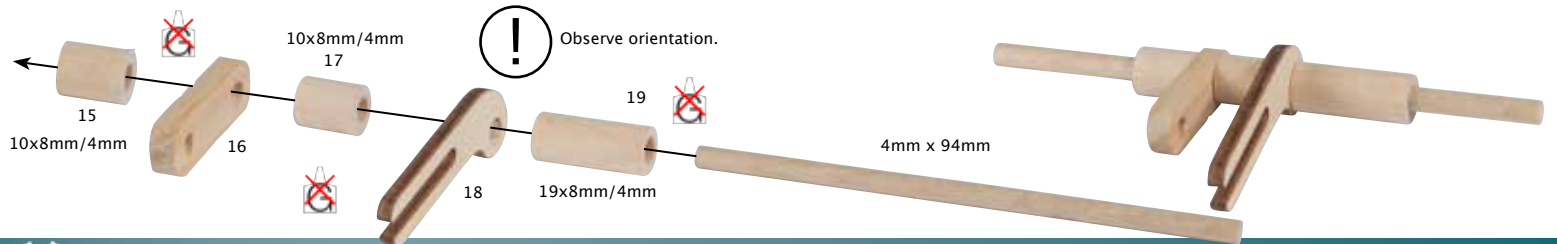
13



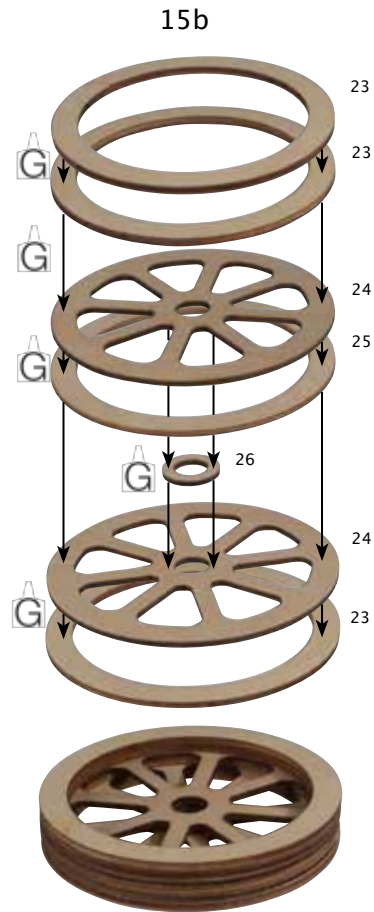
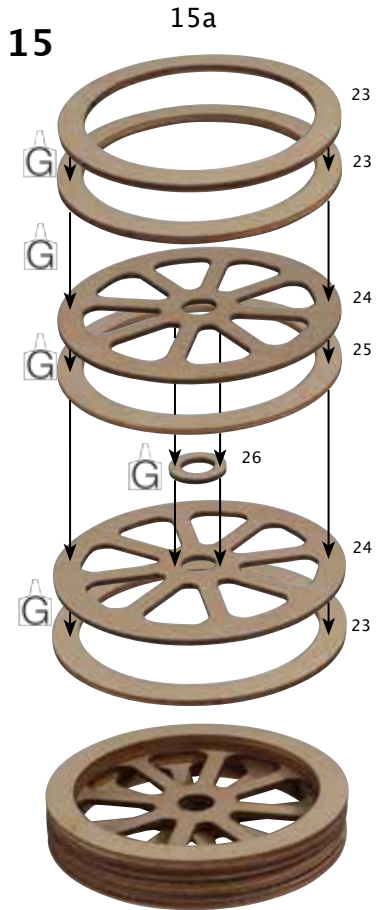
14



12



Observe orientation.

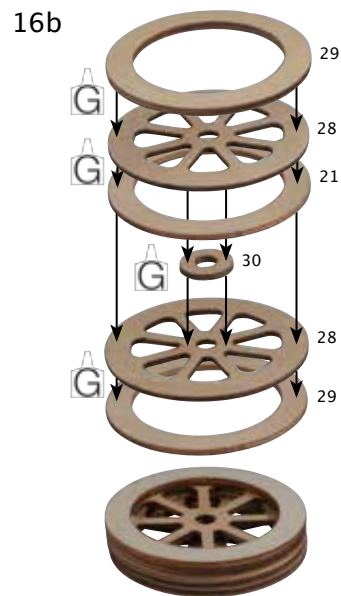
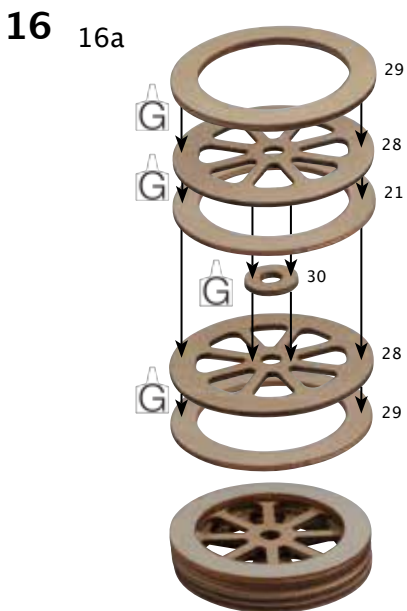
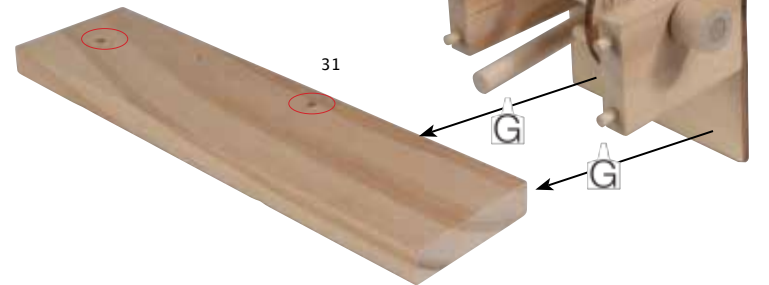


For section 15 (15a & 15b) and section 16 (16a & 16b) it is of great importance that all parts line up correctly around the central axle hole to ensure correct operation of the model.

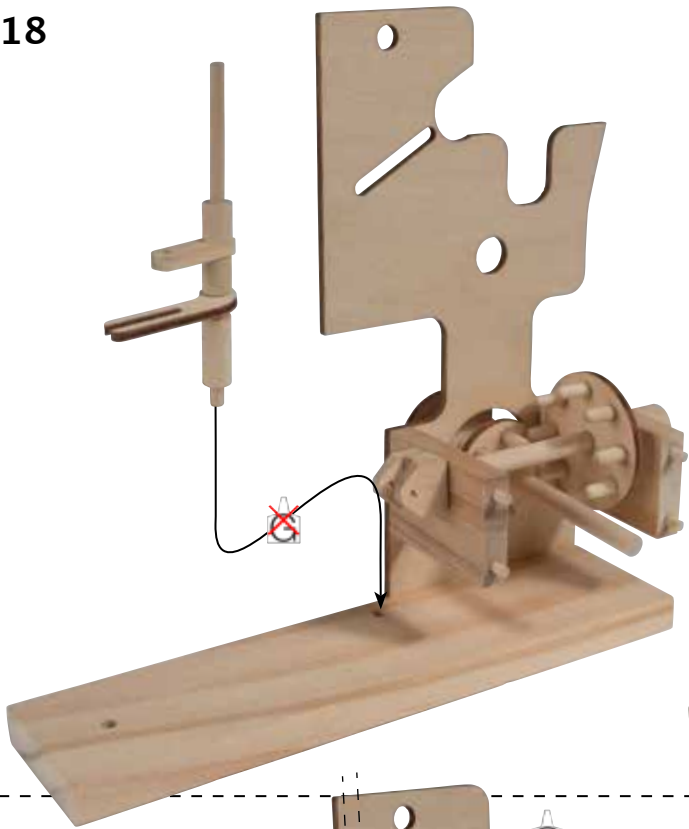
**17**



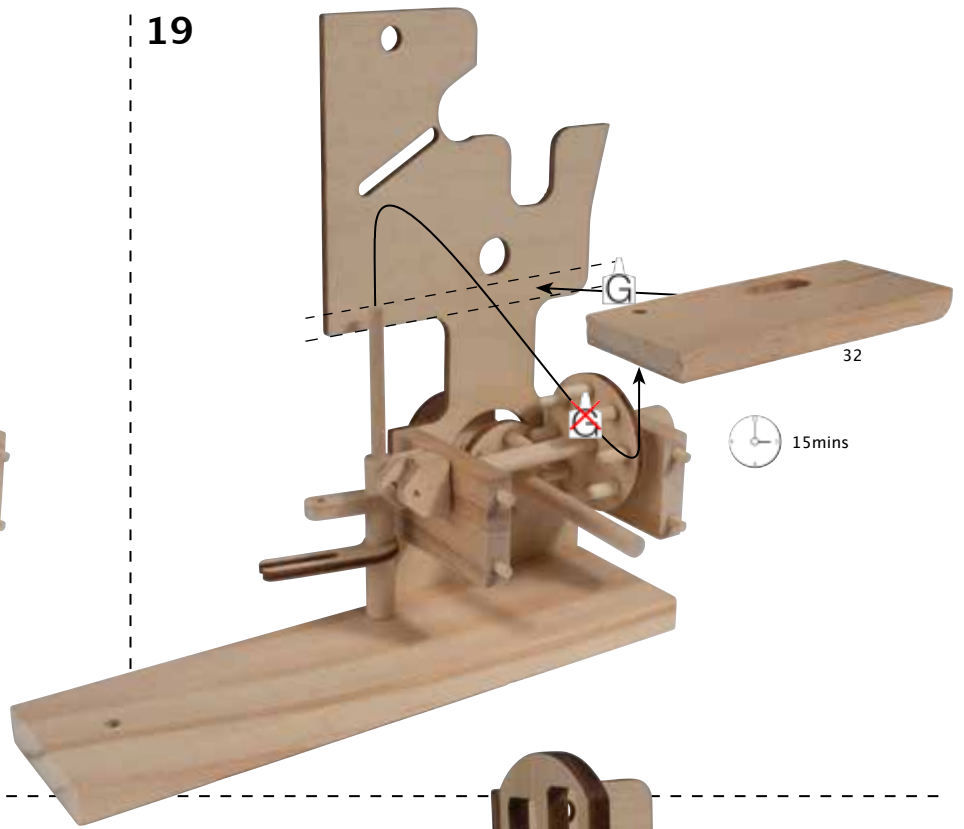
Observe correct locations of holes in base part 31 to ensure correct orientation.



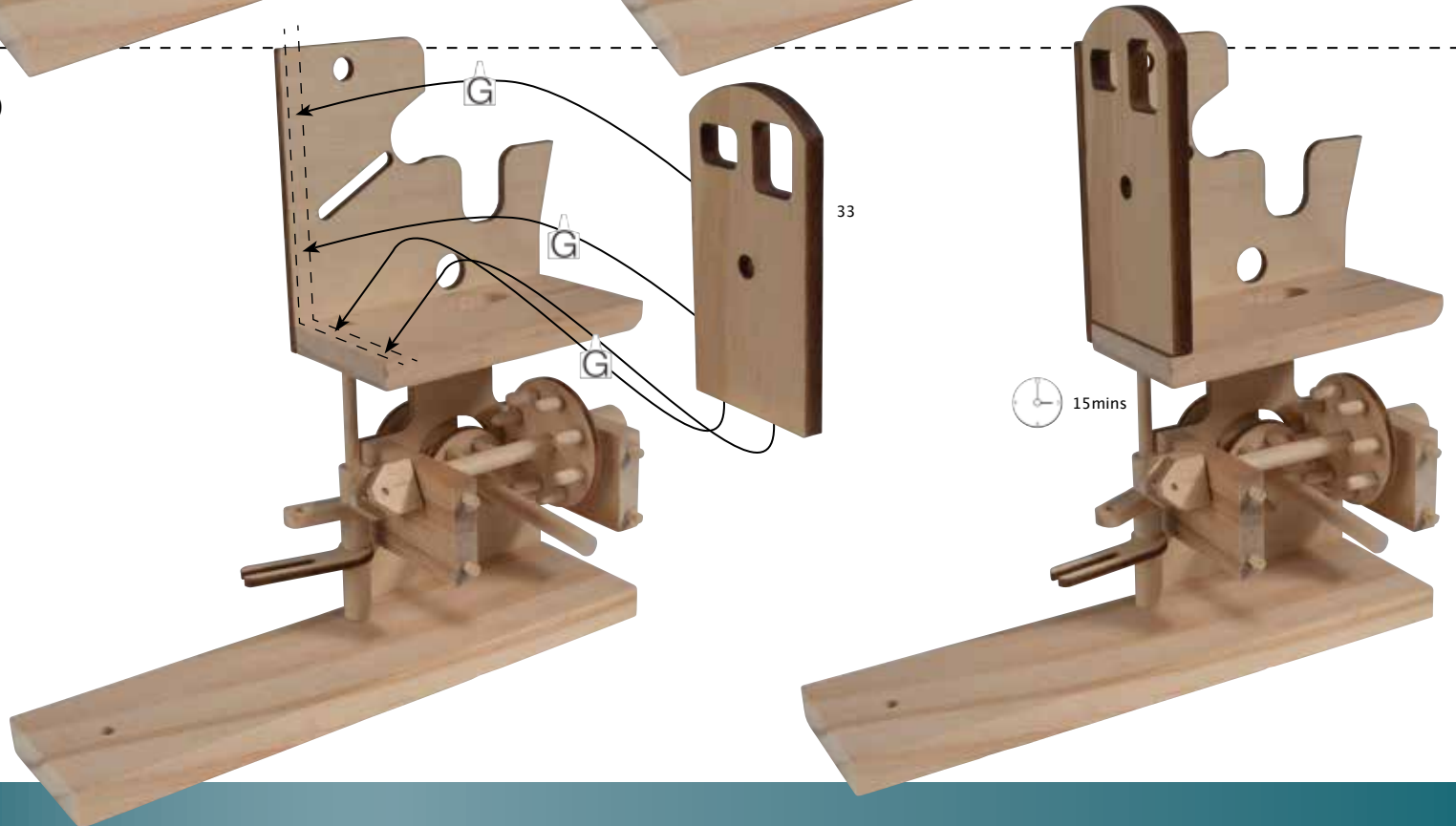
18



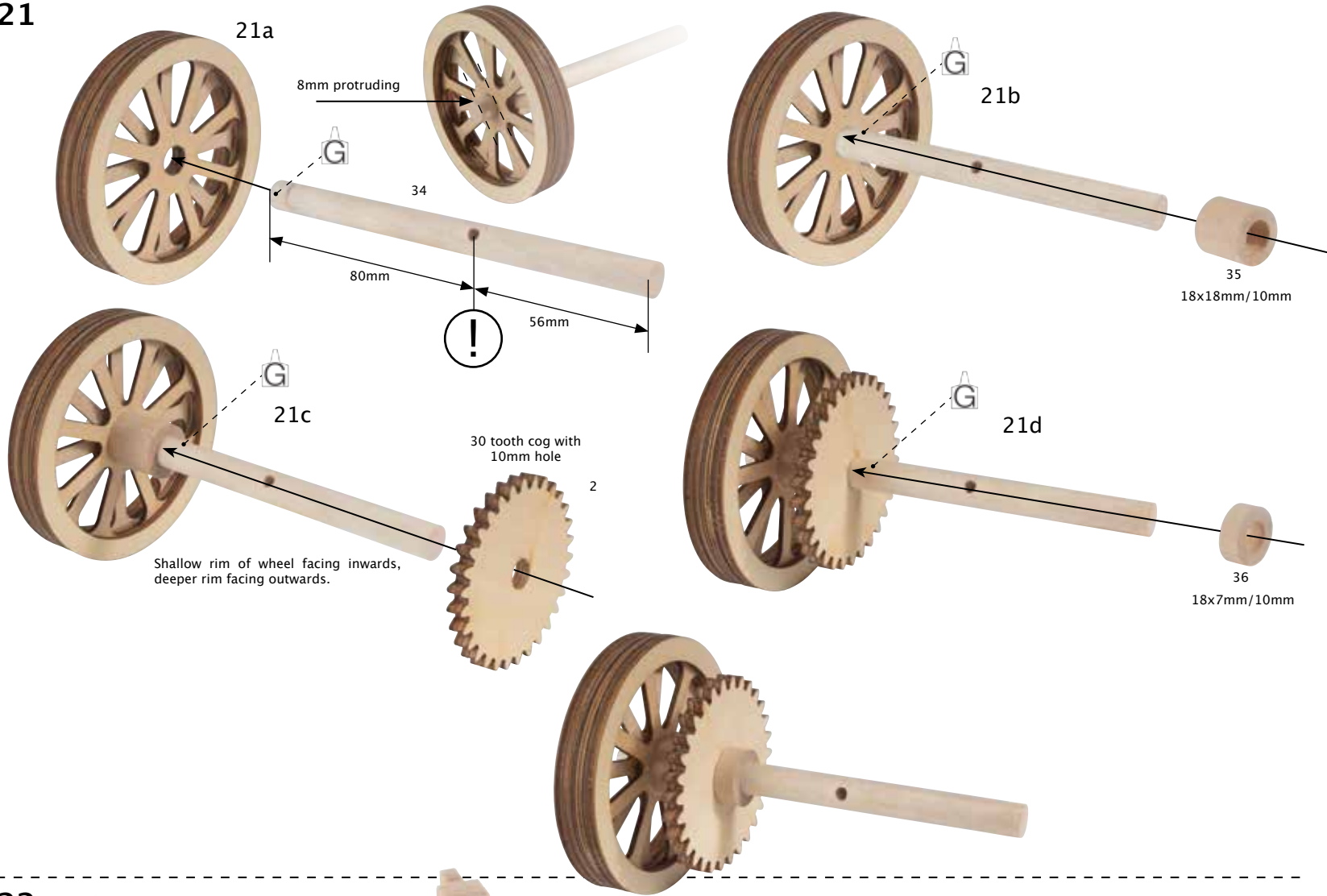
19



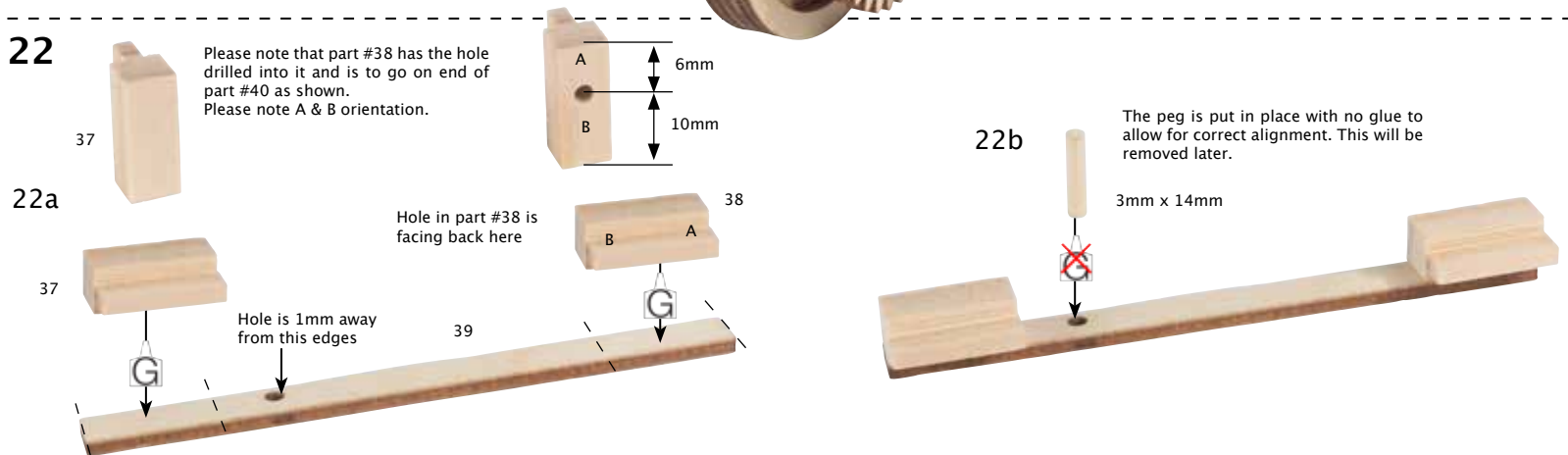
20



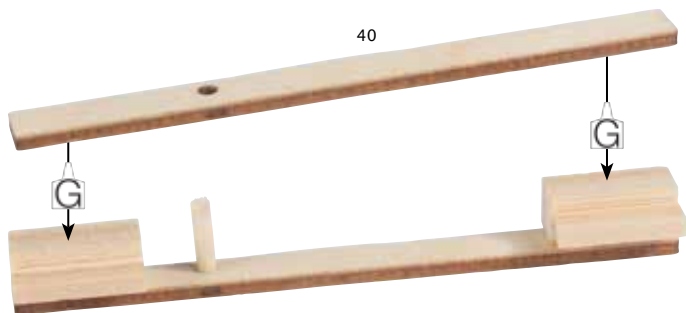
21



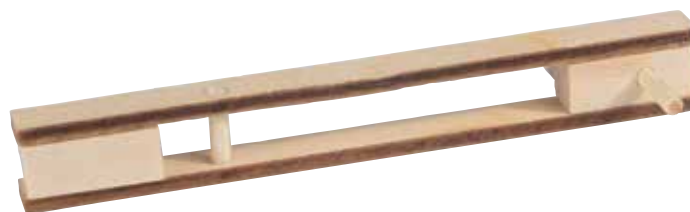
22



22c

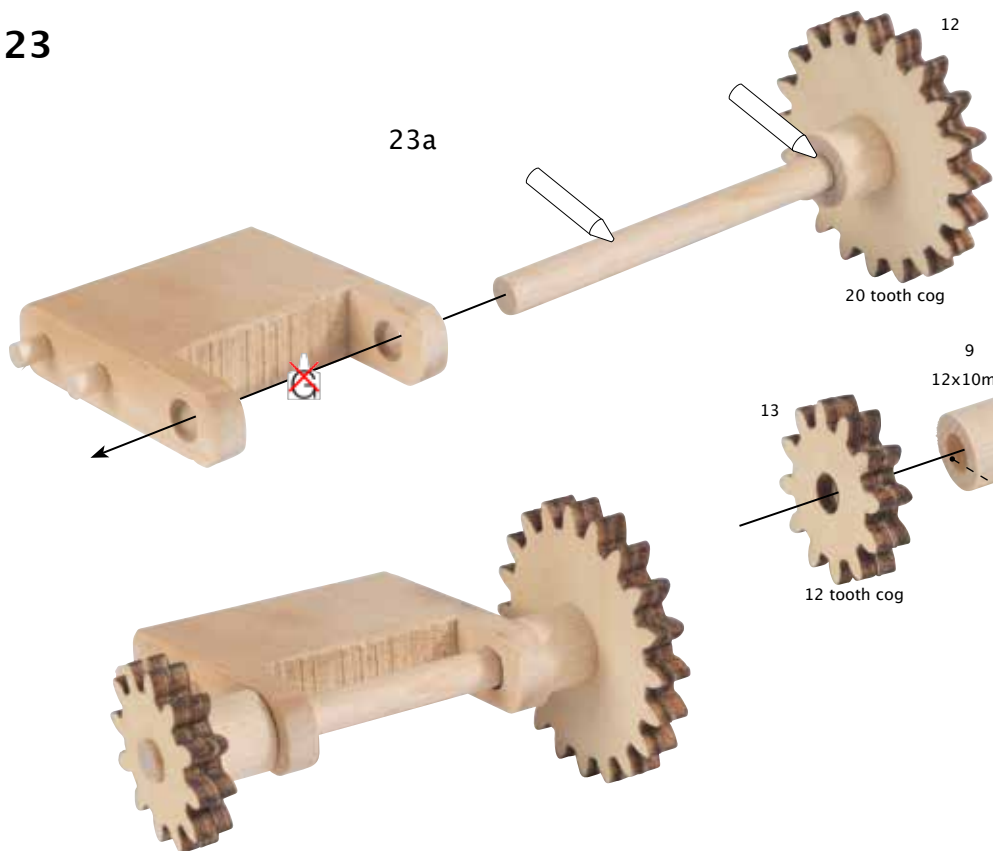


22d

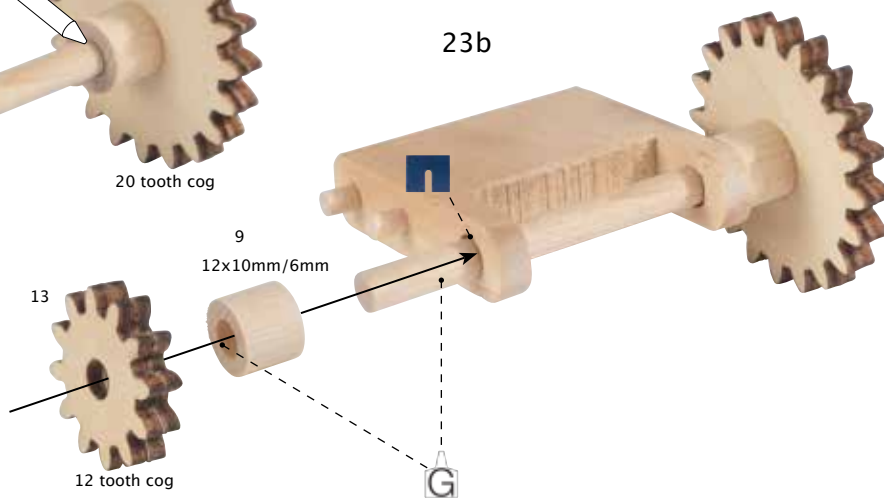


23

23a

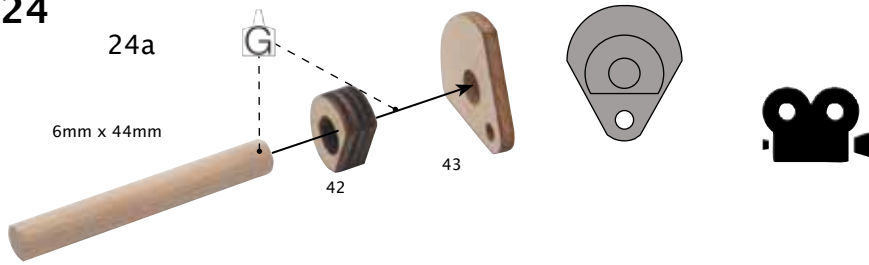


23b

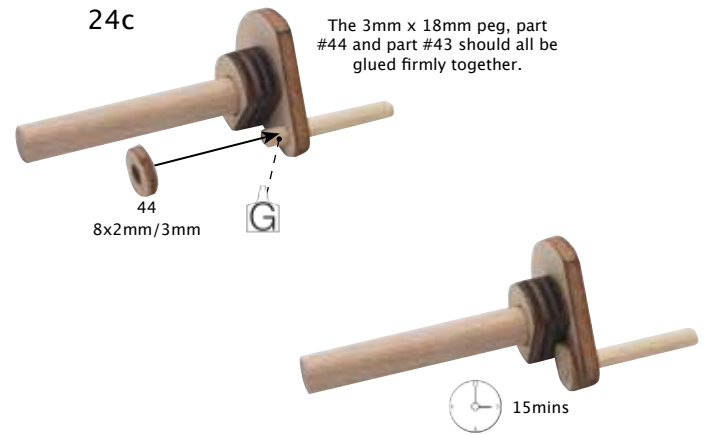




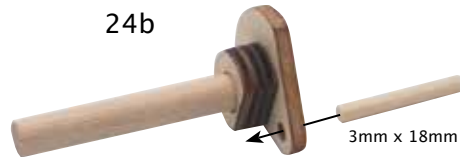
24



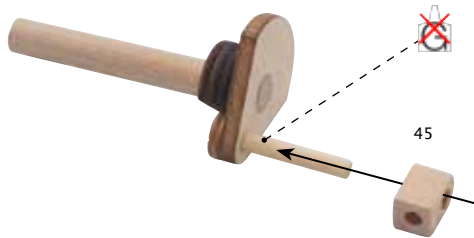
24c



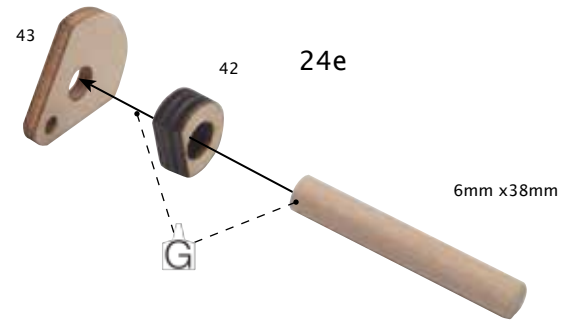
24b



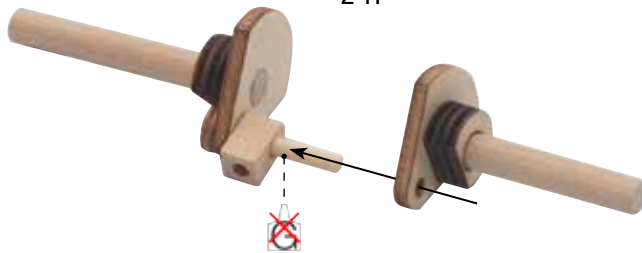
24d



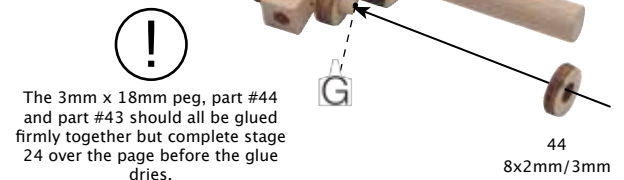
43

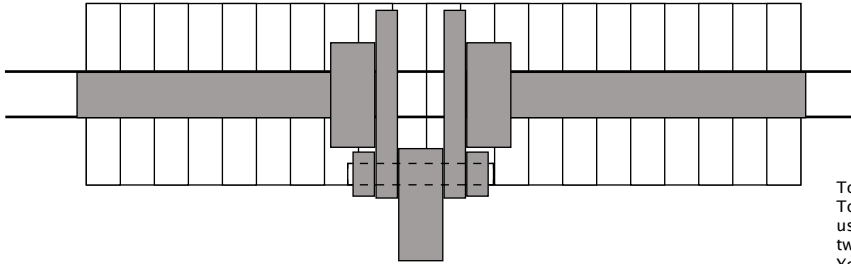
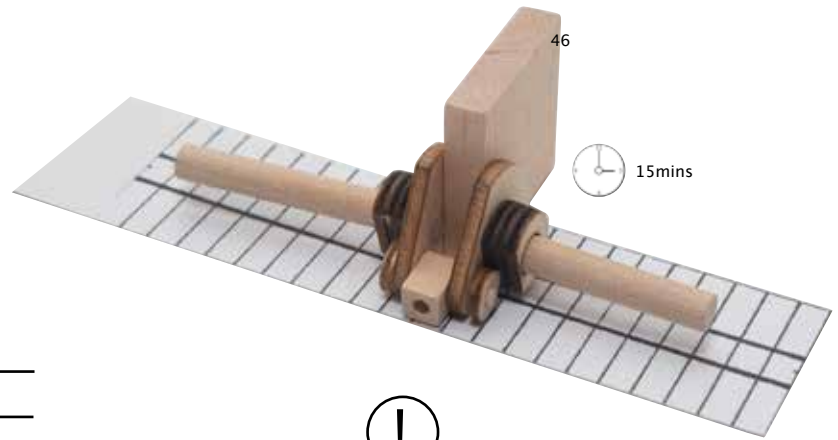


24f



24g

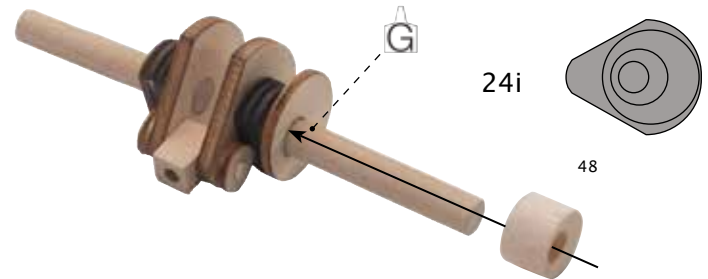
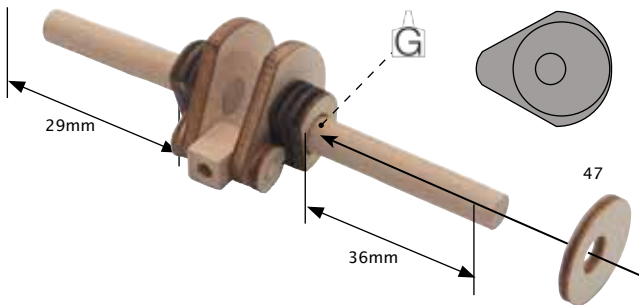




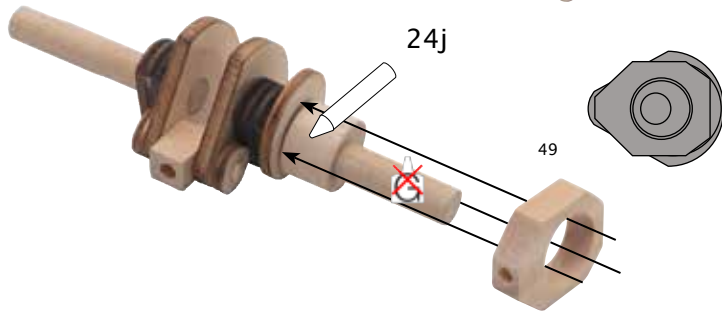
To ensure perfect operation it is vital that the shafts either side of this assembly are perfectly parallel. To check this insert the wooden block part #46 between the 2 quadrant pieces as shown and then use the printed grid that is supplied in the kit. Lay the assembly with shafts aligned between the two parallel lines running the length of the grid. You can then use the grid to check the straightness of the shaft and components.

The wooden block part #46 is just for ensuring the alignment and is not used again in the model and can then be discarded.

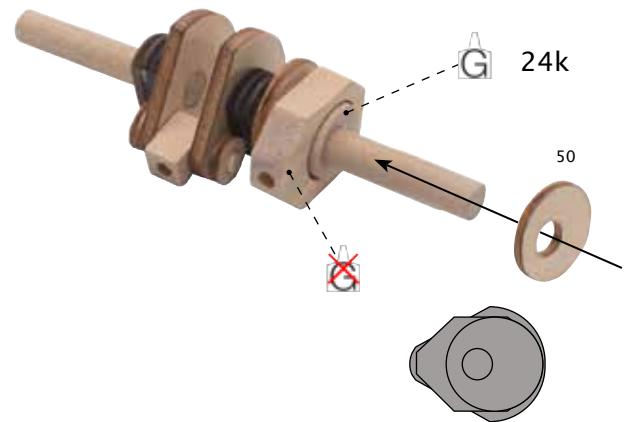
24h



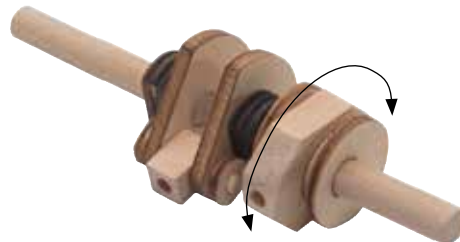
24i



24j



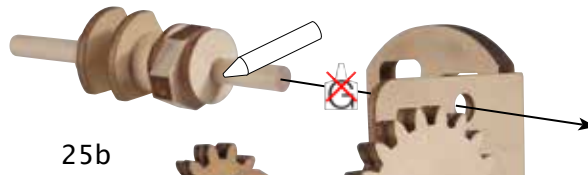
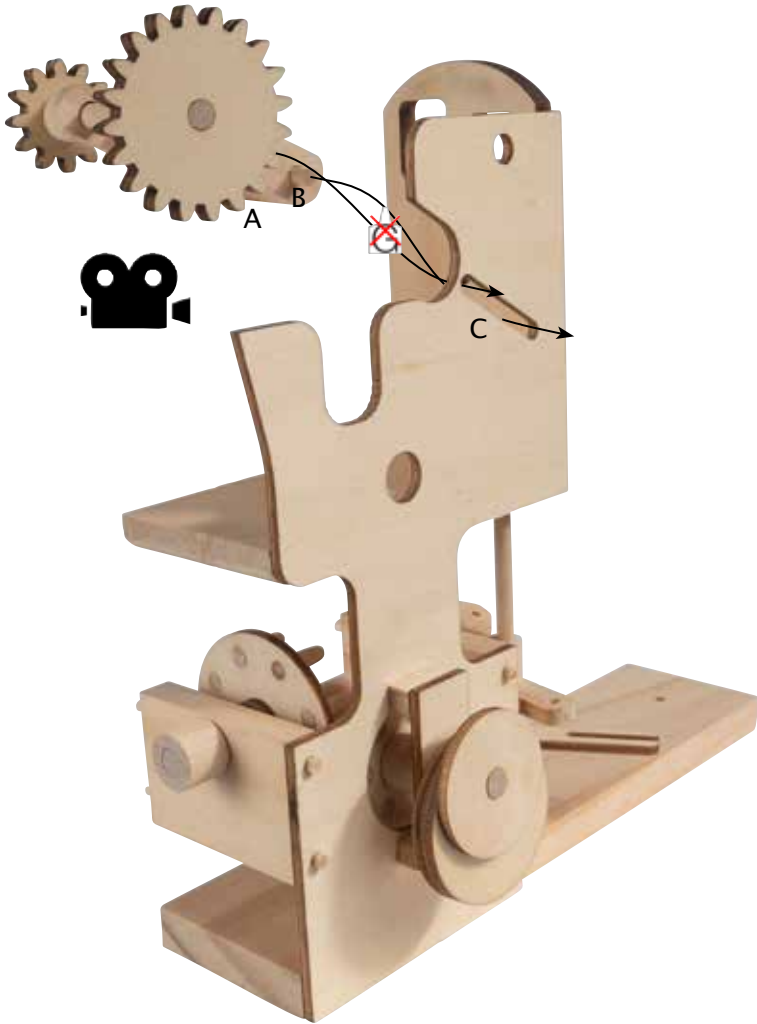
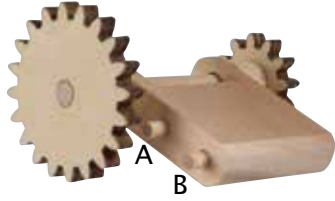
24k



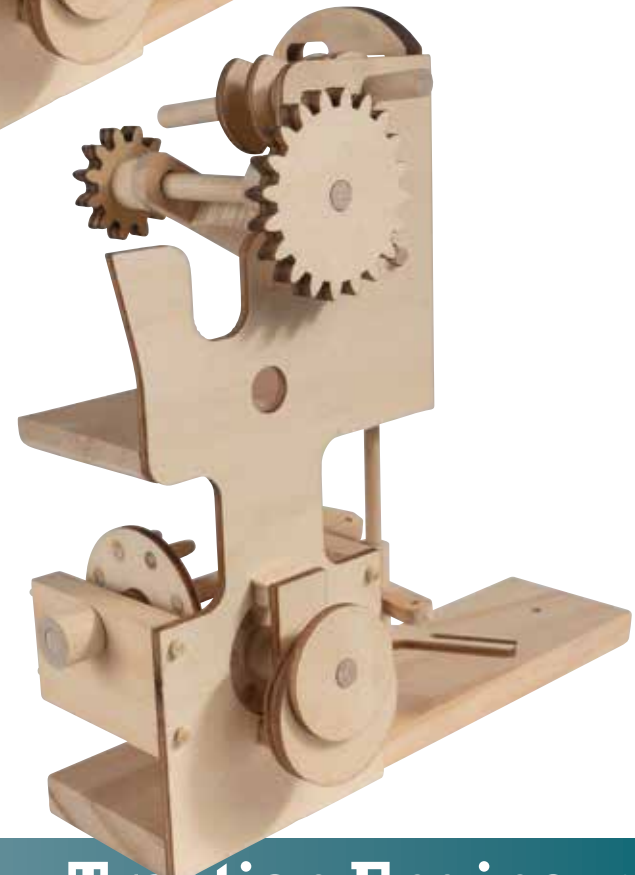
25

25a

The 2 pegs (marked A & B) locate into the slot (marked C) with the cog on the outside as shown in the image.

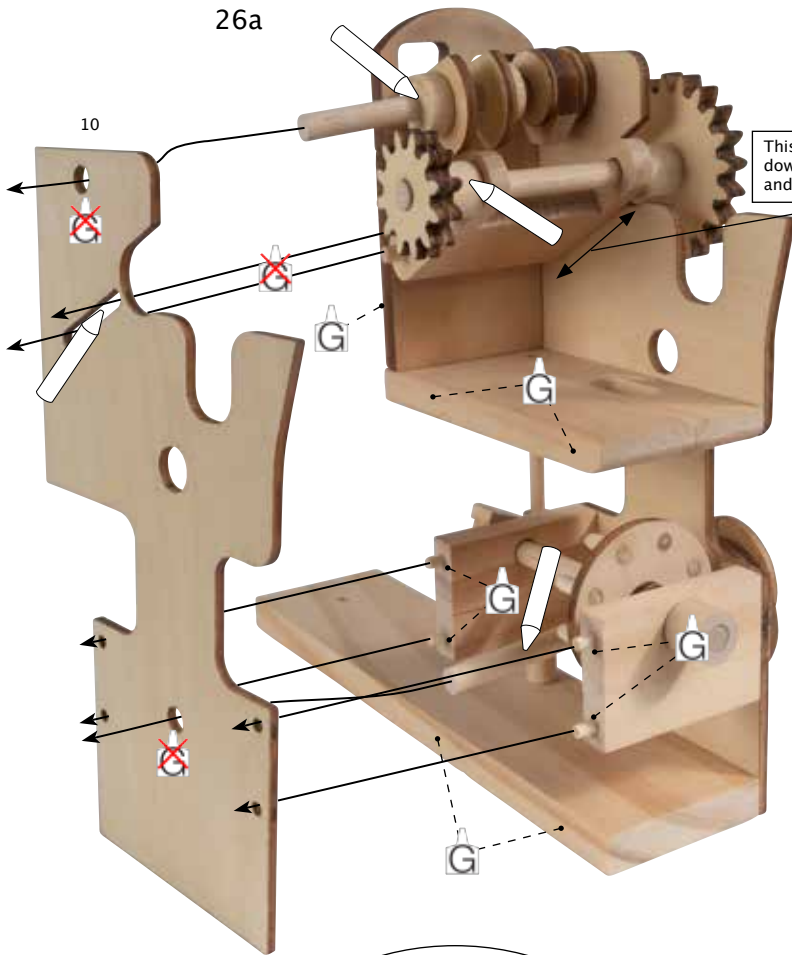


25b

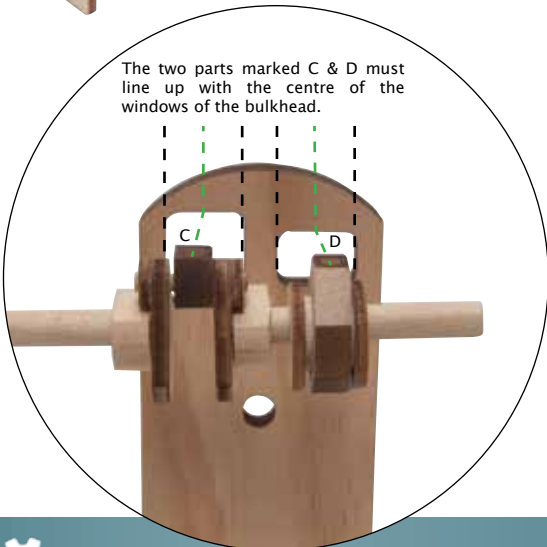
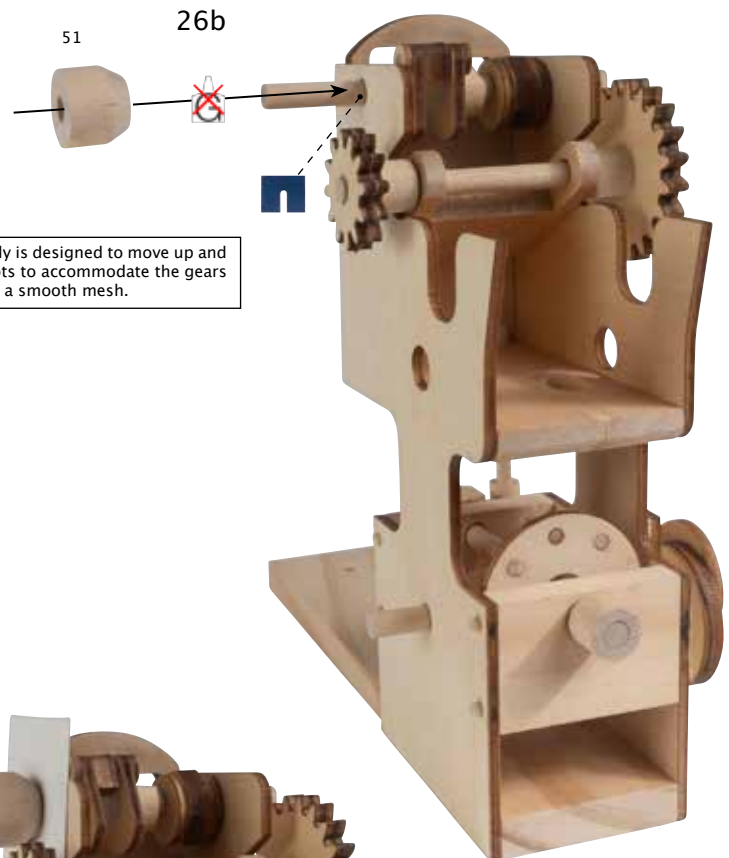


# 26

Assemble this stage without glue first to make sure everything fits comfortably before committing to glue.



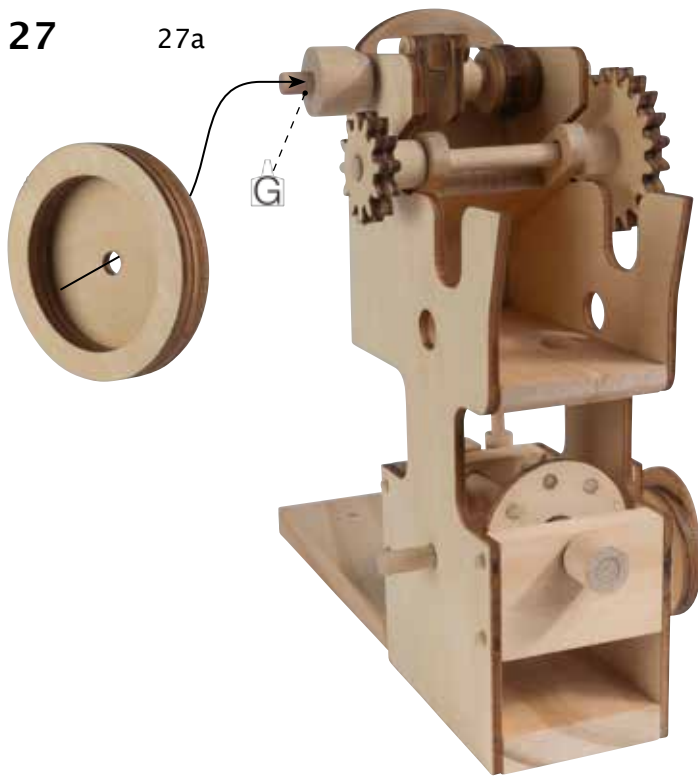
This assembly is designed to move up and down the slots to accommodate the gears and produce a smooth mesh.



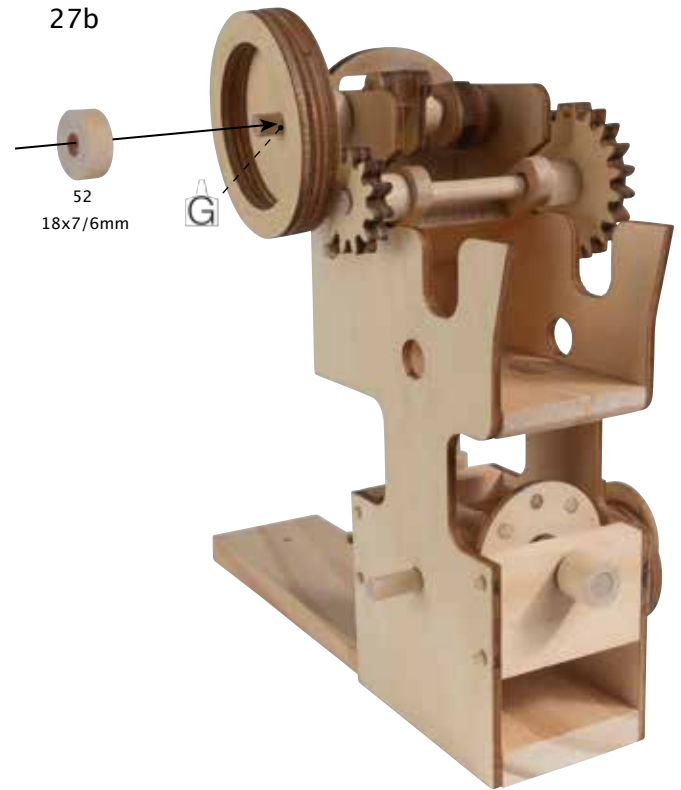
The two parts marked C & D must line up with the centre of the windows of the bulkhead.

27

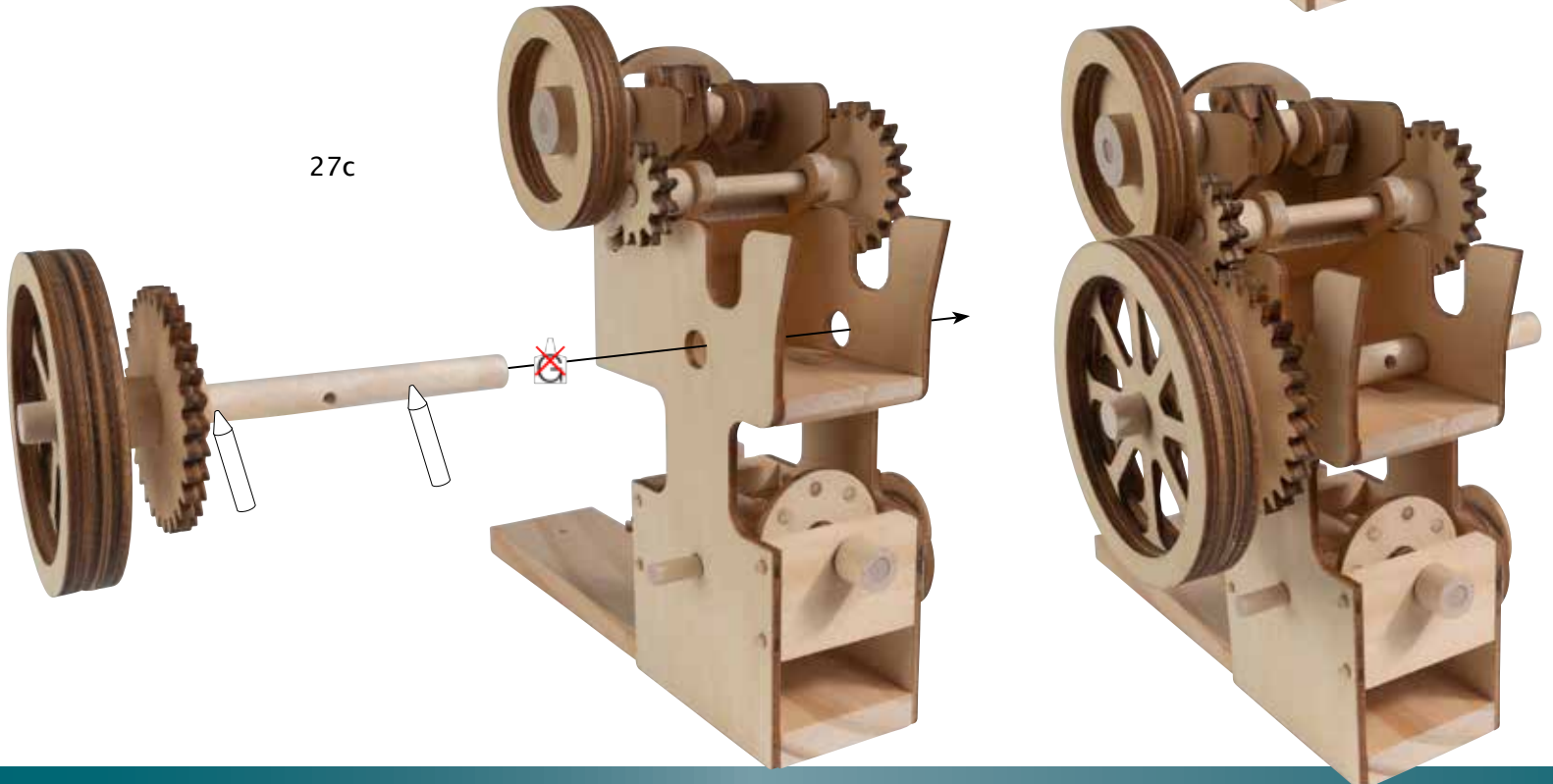
27a



27b

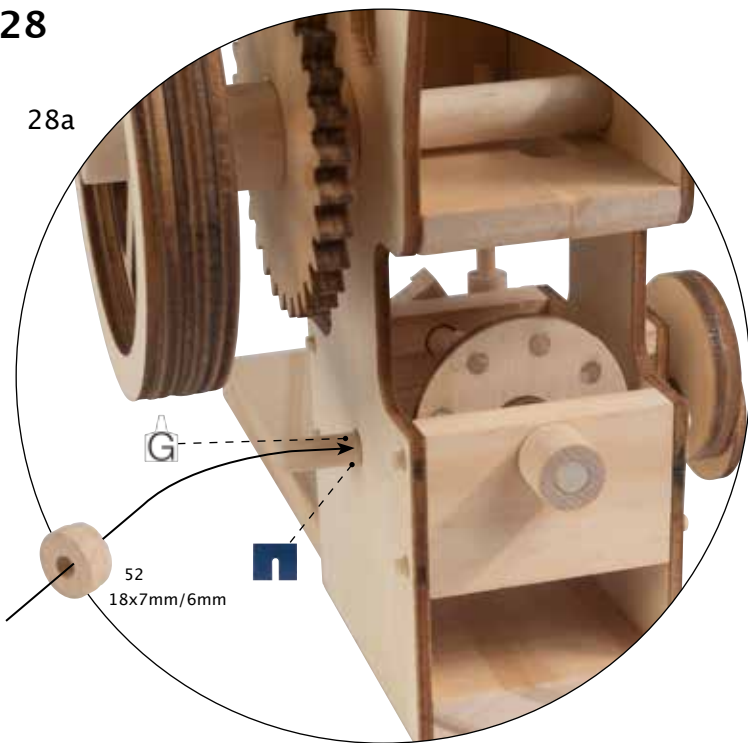


27c

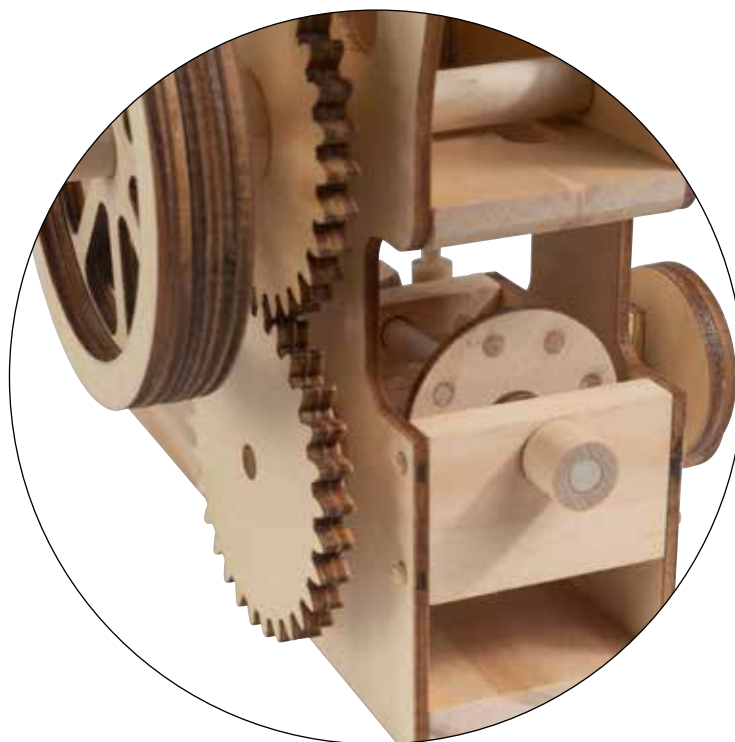
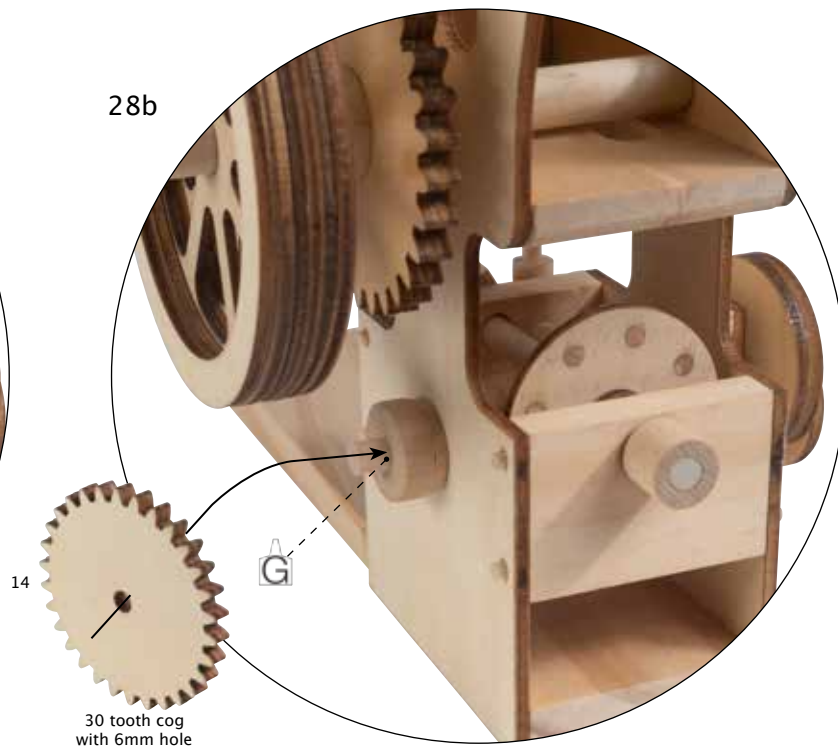


28

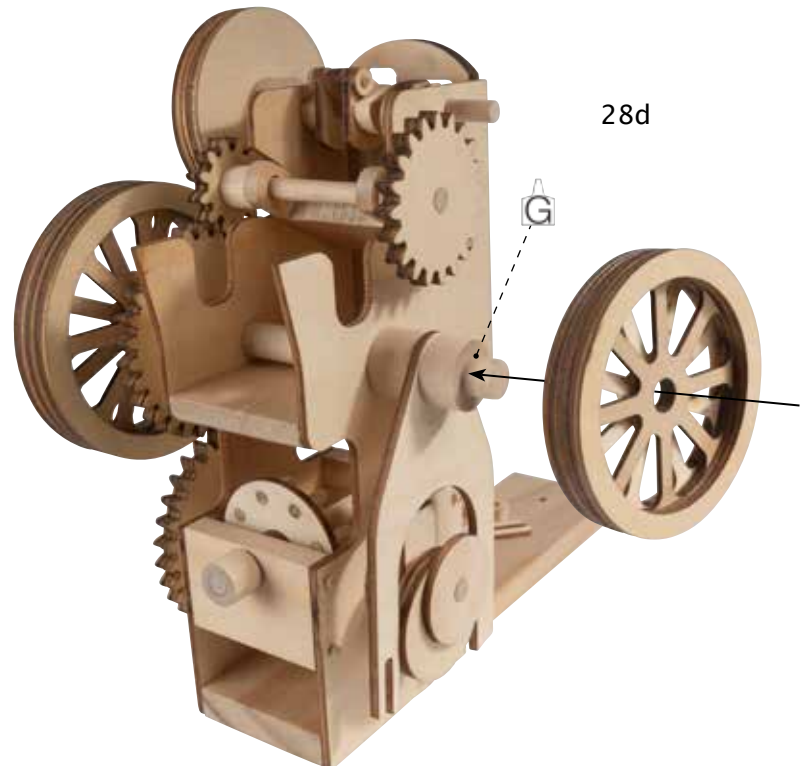
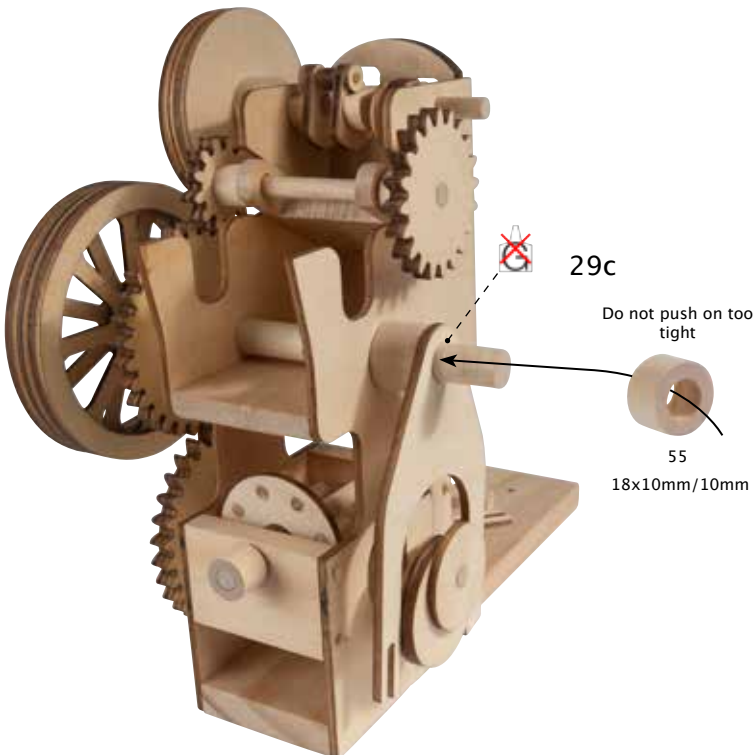
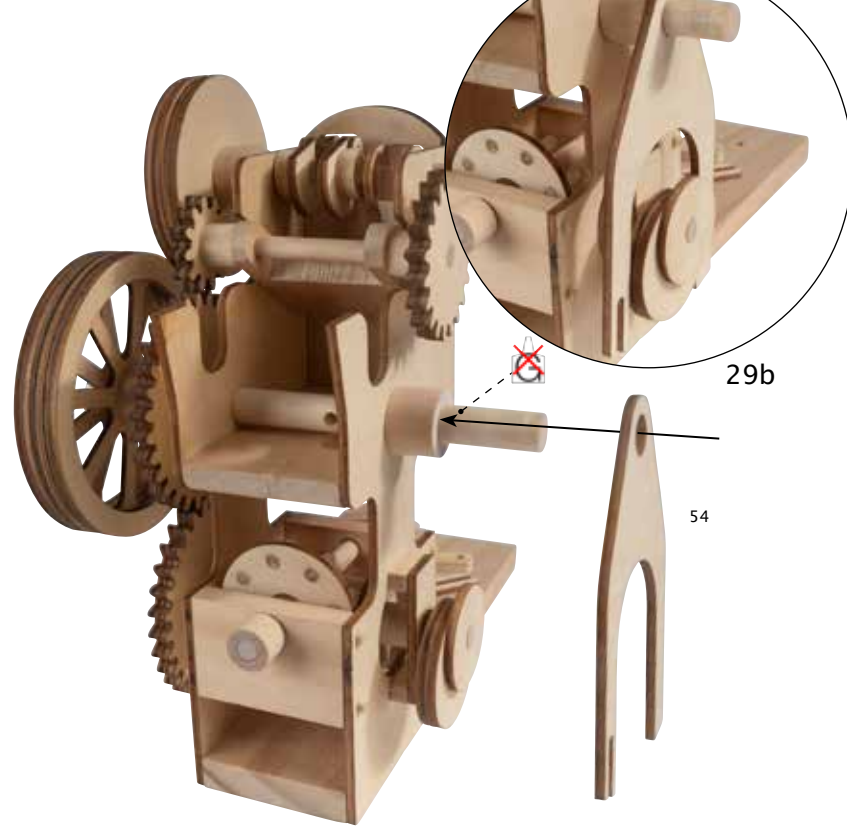
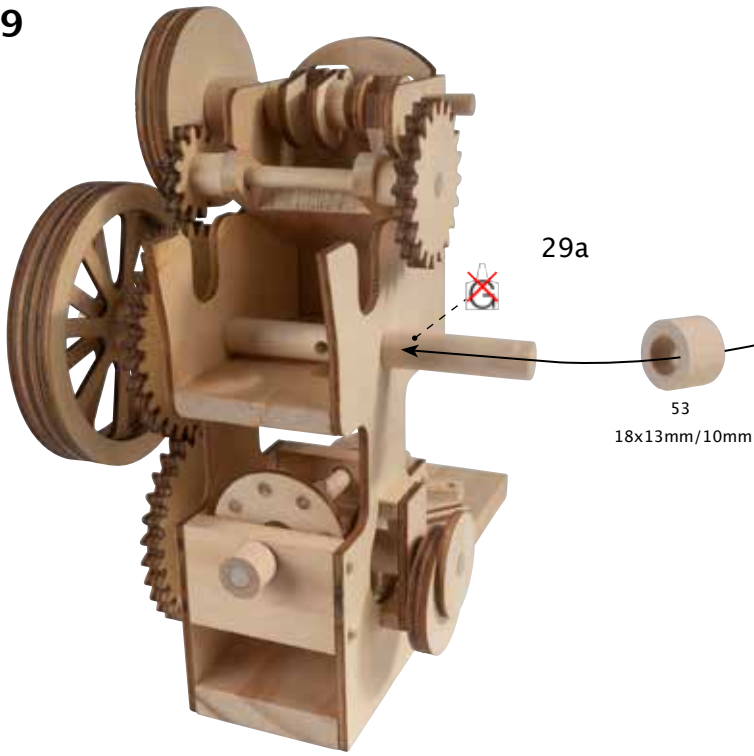
28a

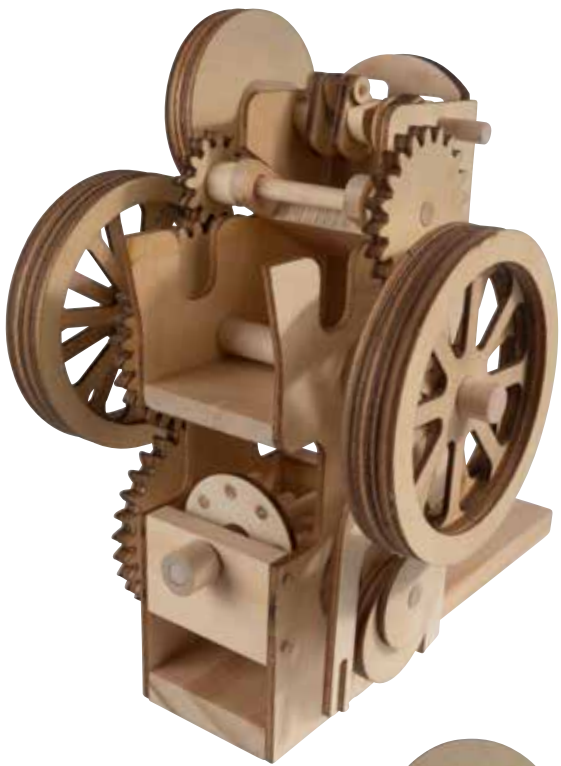


28b

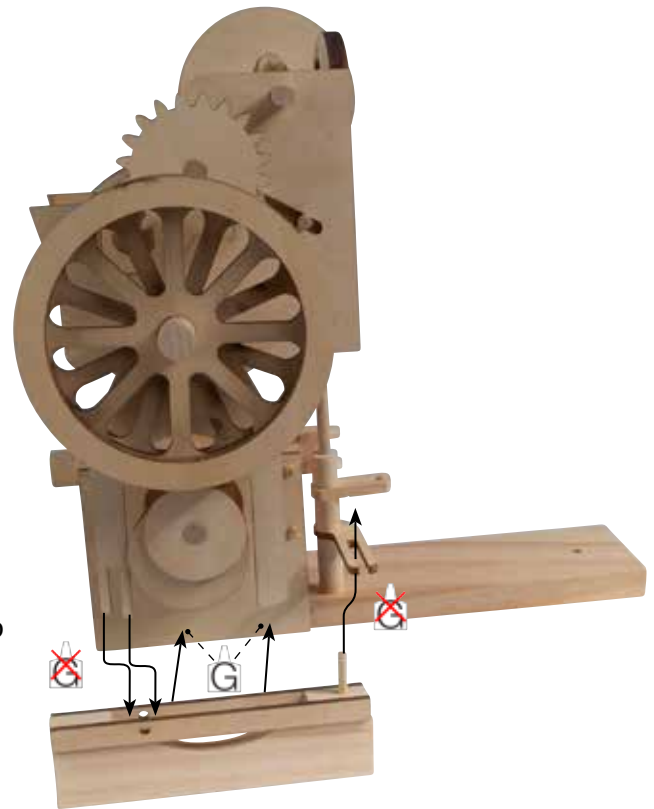
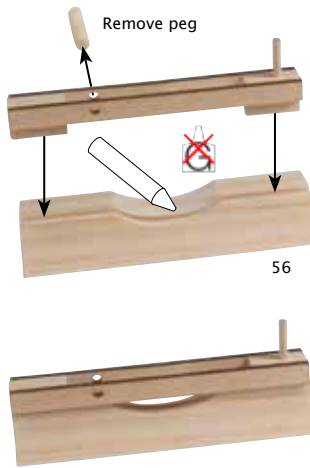


29





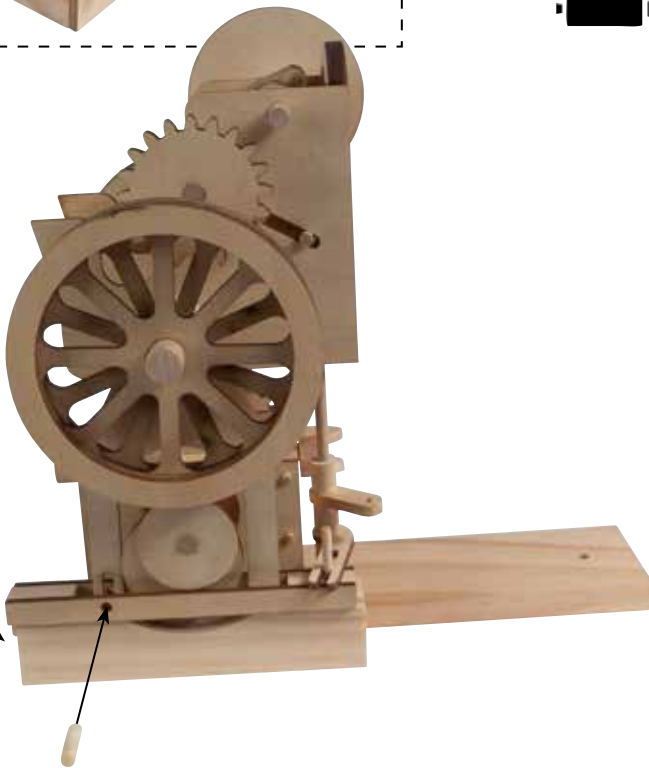
30 30a



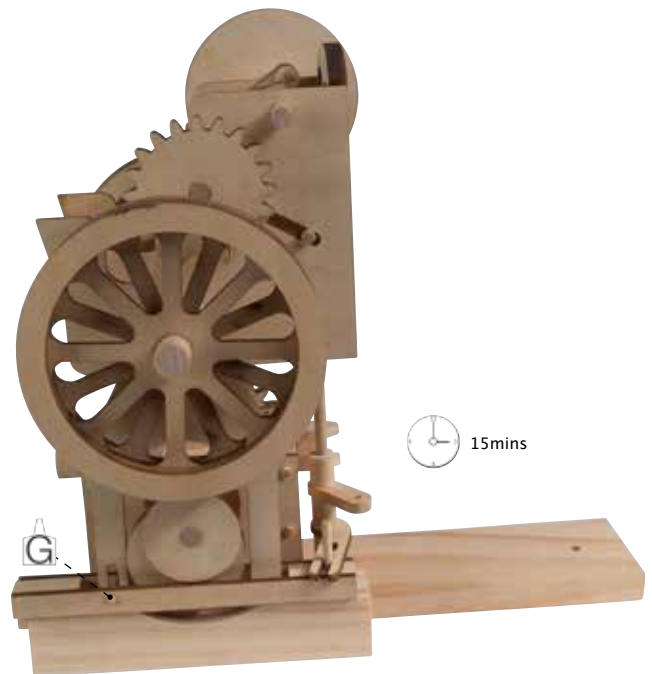
Part #56 needs to overhang the base by 16mm

30c

3mm x 14mm



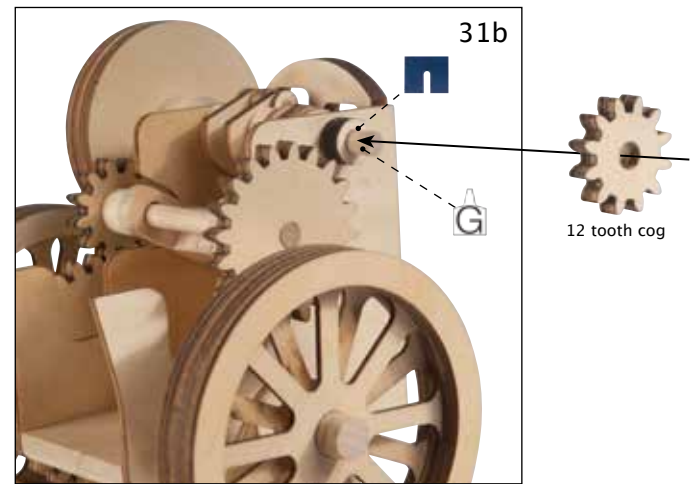
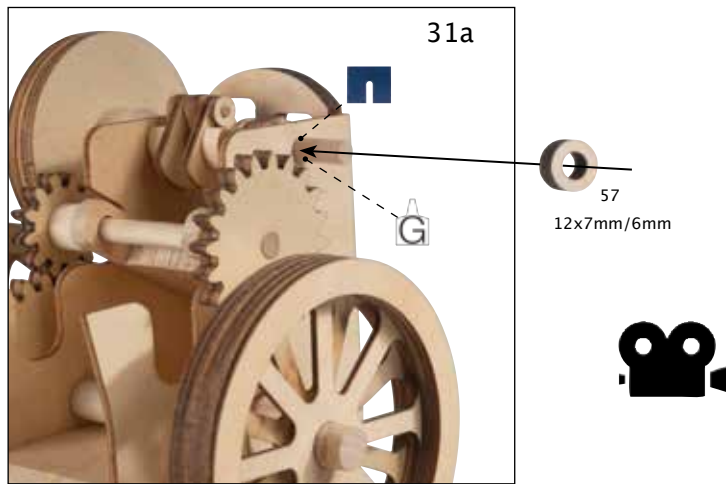
30d



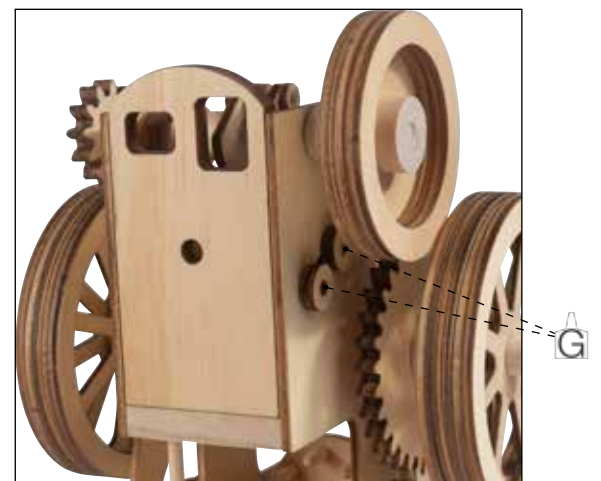
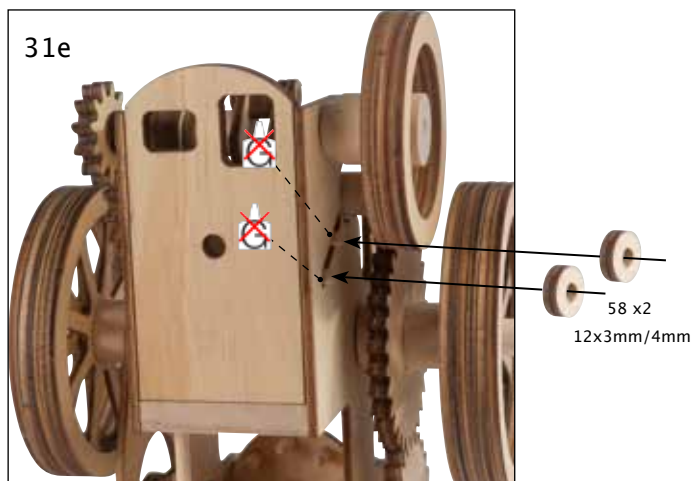
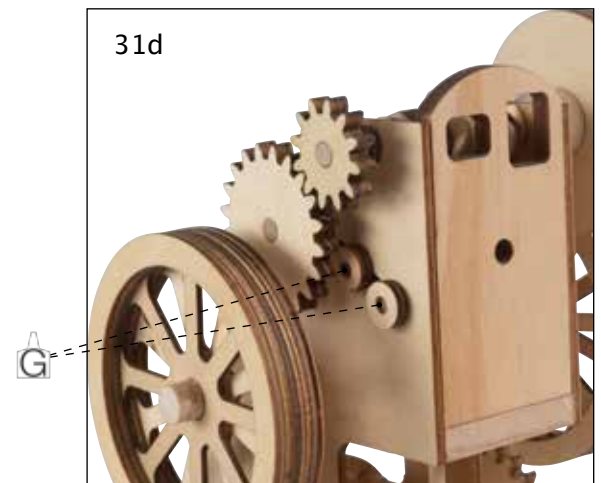
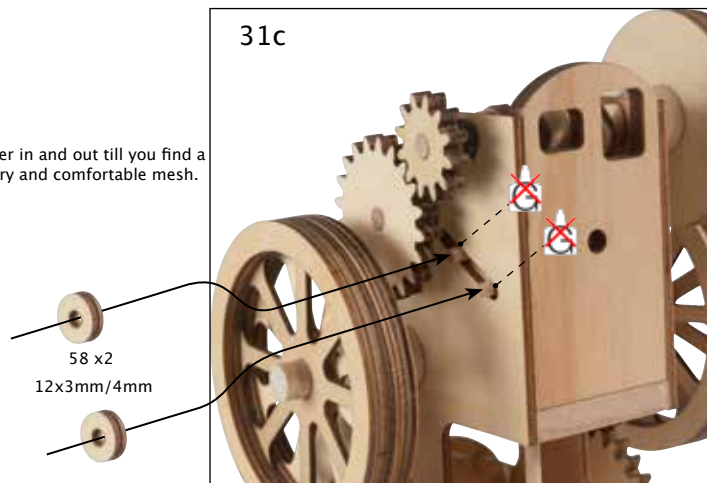
15mins



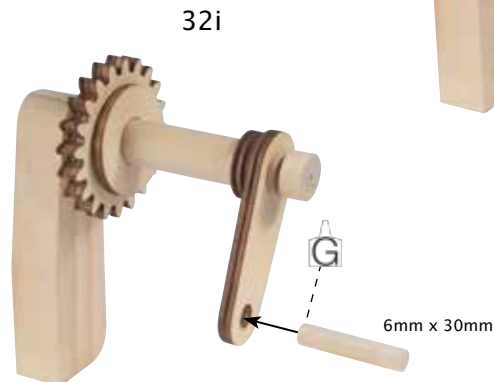
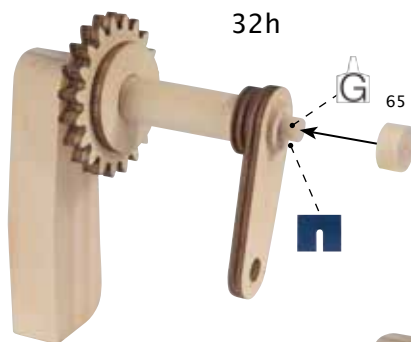
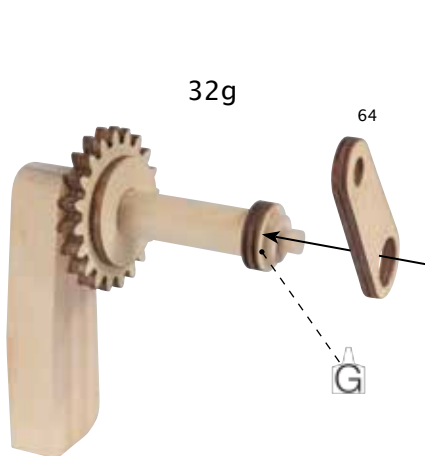
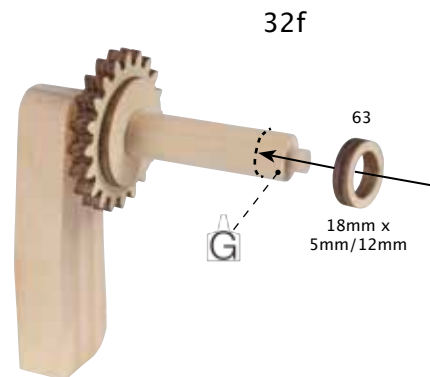
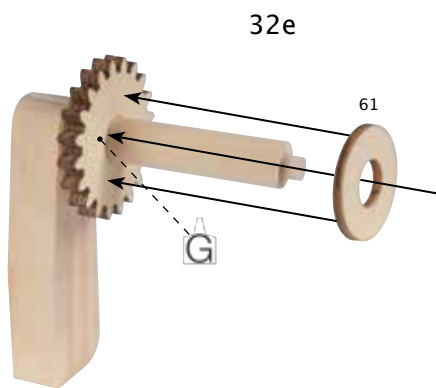
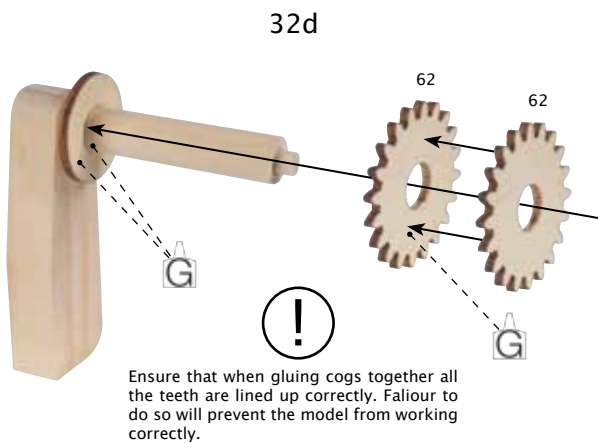
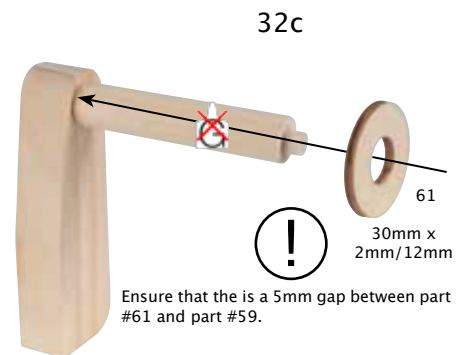
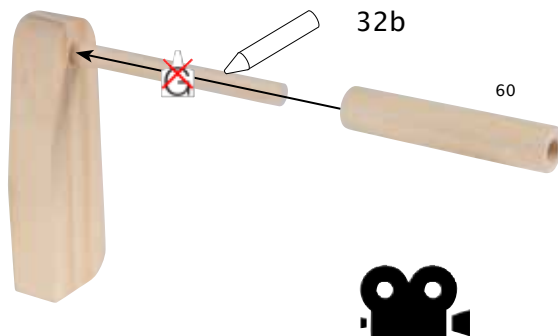
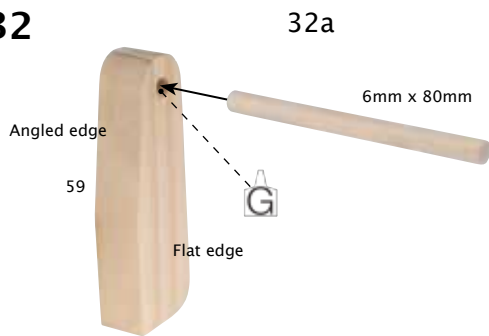
31



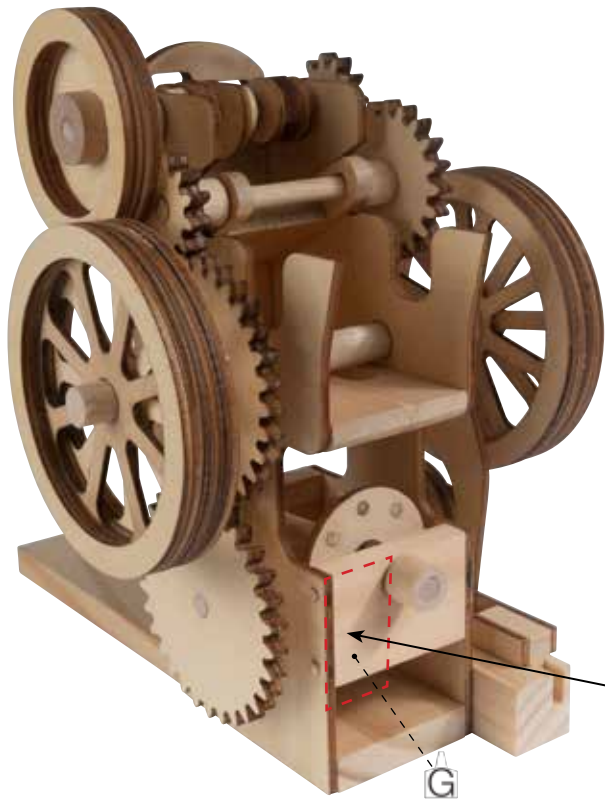
Move carrier in and out till you find a satisfactory and comfortable mesh.



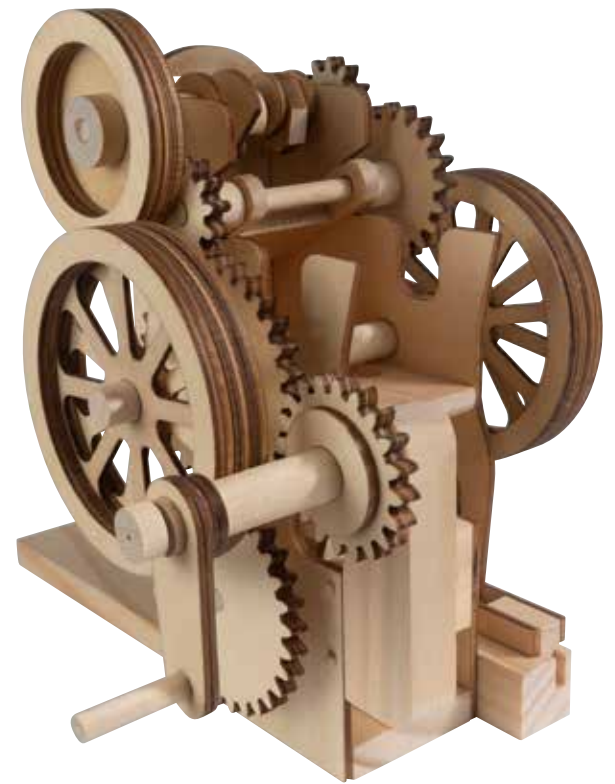
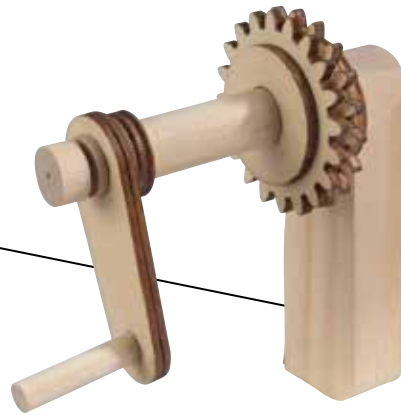
32



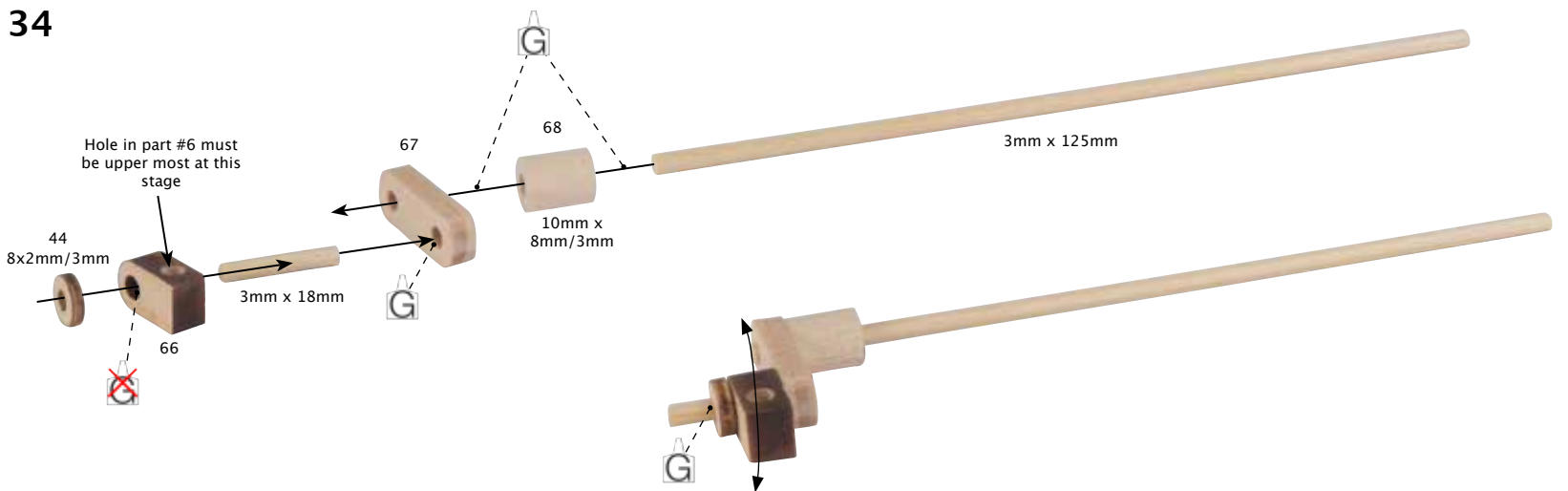
33



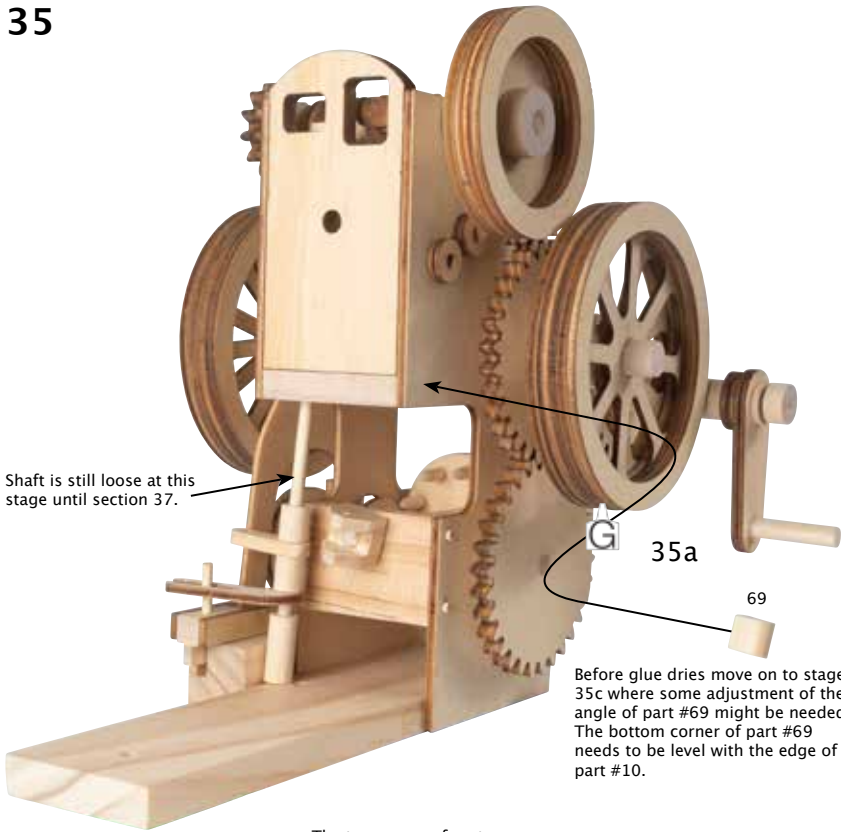
Before glue fully dry test to ensure crank cog meshes correctly. Hold in place while drying.



34



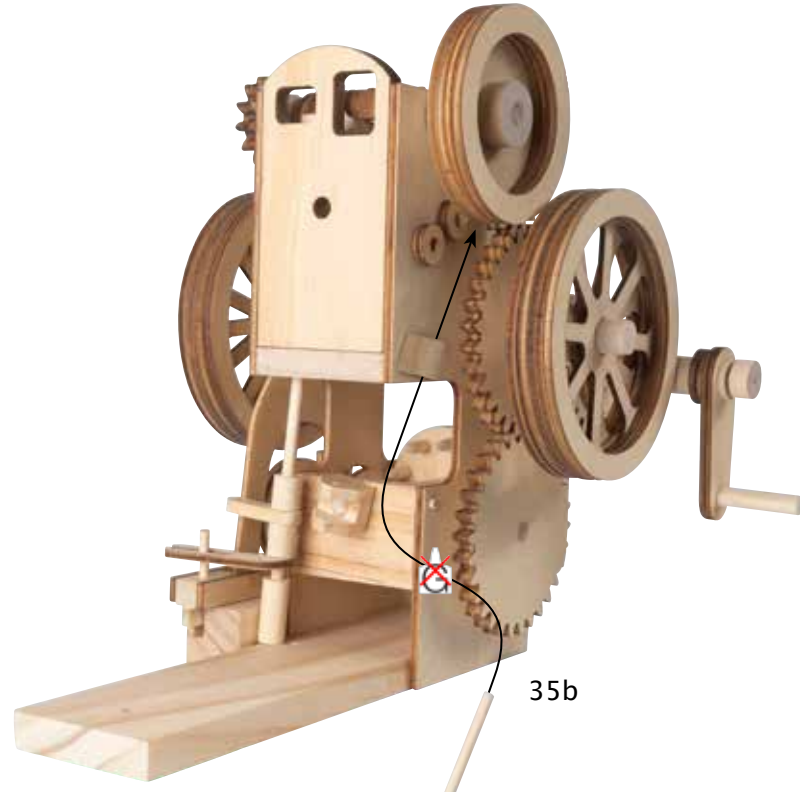
Shaft is still loose at this stage until section 37.



35a

69

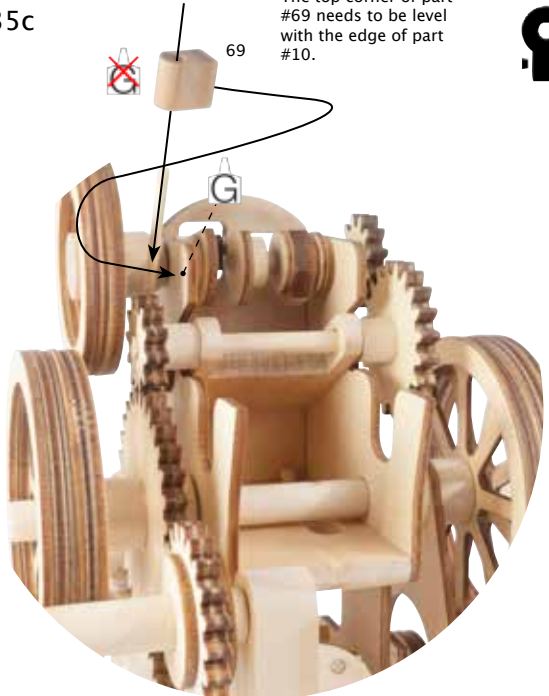
Before glue dries move on to stage 35c where some adjustment of the angle of part #69 might be needed. The bottom corner of part #69 needs to be level with the edge of part #10.



35b

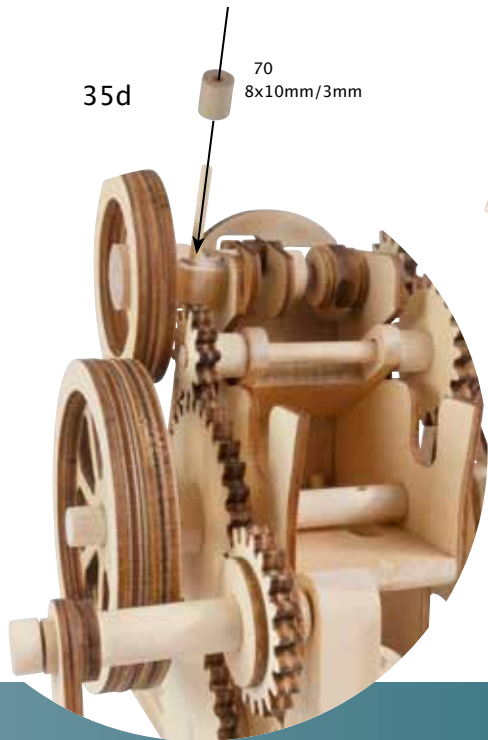
35c

The top corner of part #69 needs to be level with the edge of part #10.



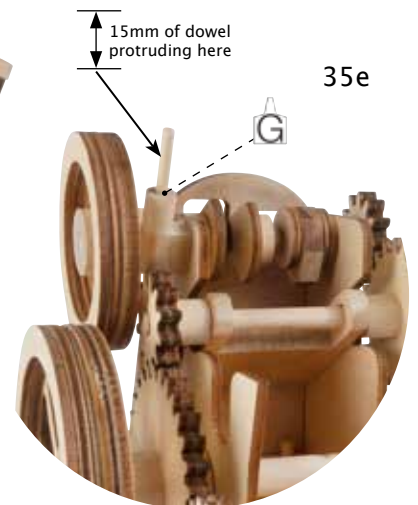
35d

70  
8x10mm/3mm

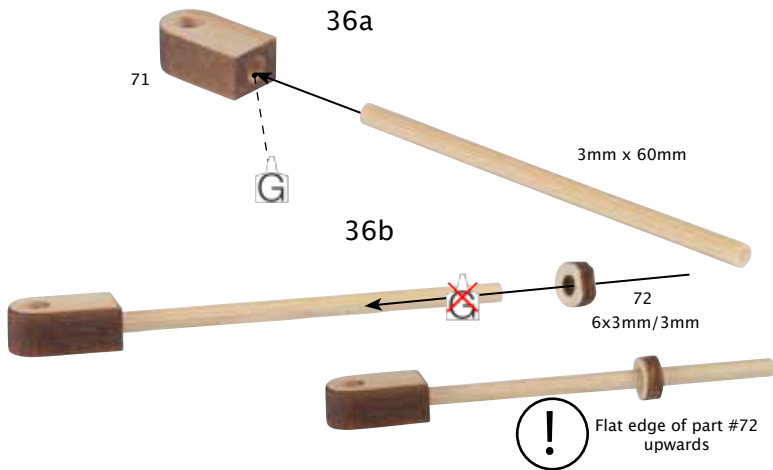


15mm of dowel protruding here

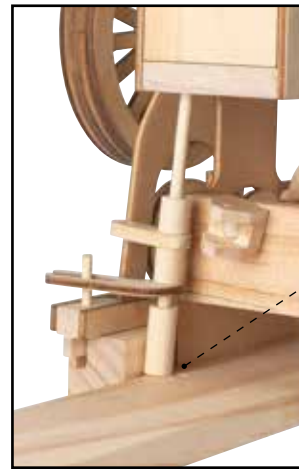
35e



36



37



37a

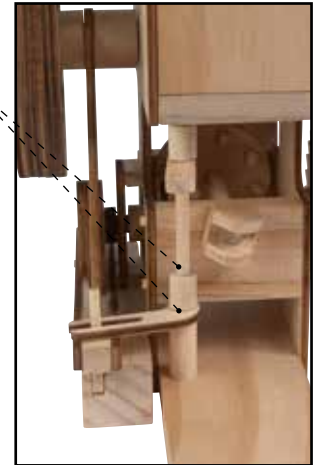
Insert bottom of shaft (4mm x 94mm) into the hole located in the base (part #31). Do not glue.



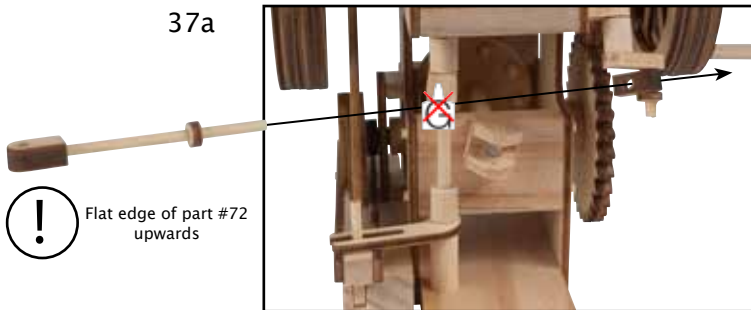
37a



Then glue parts #18 and 19 to the shaft as shown.

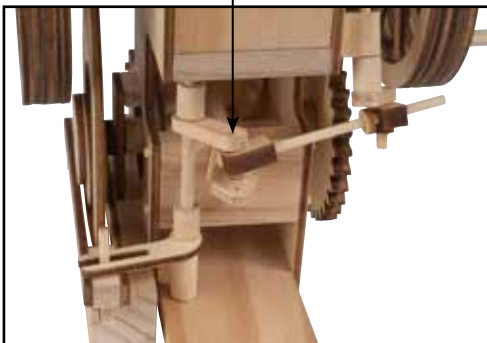


37a

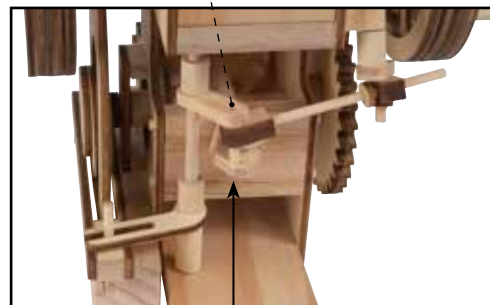


3mm x 20mm

37b

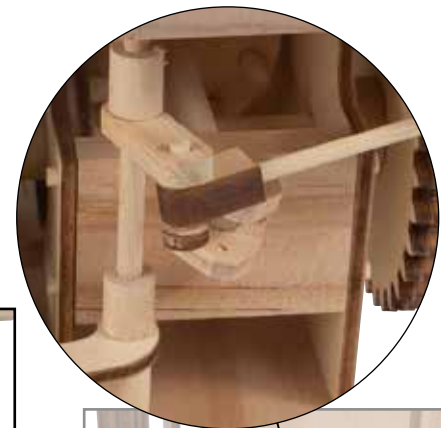


37c

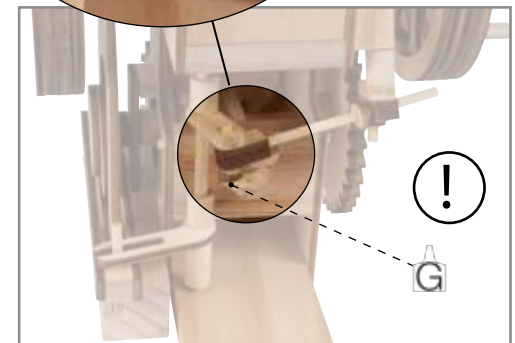


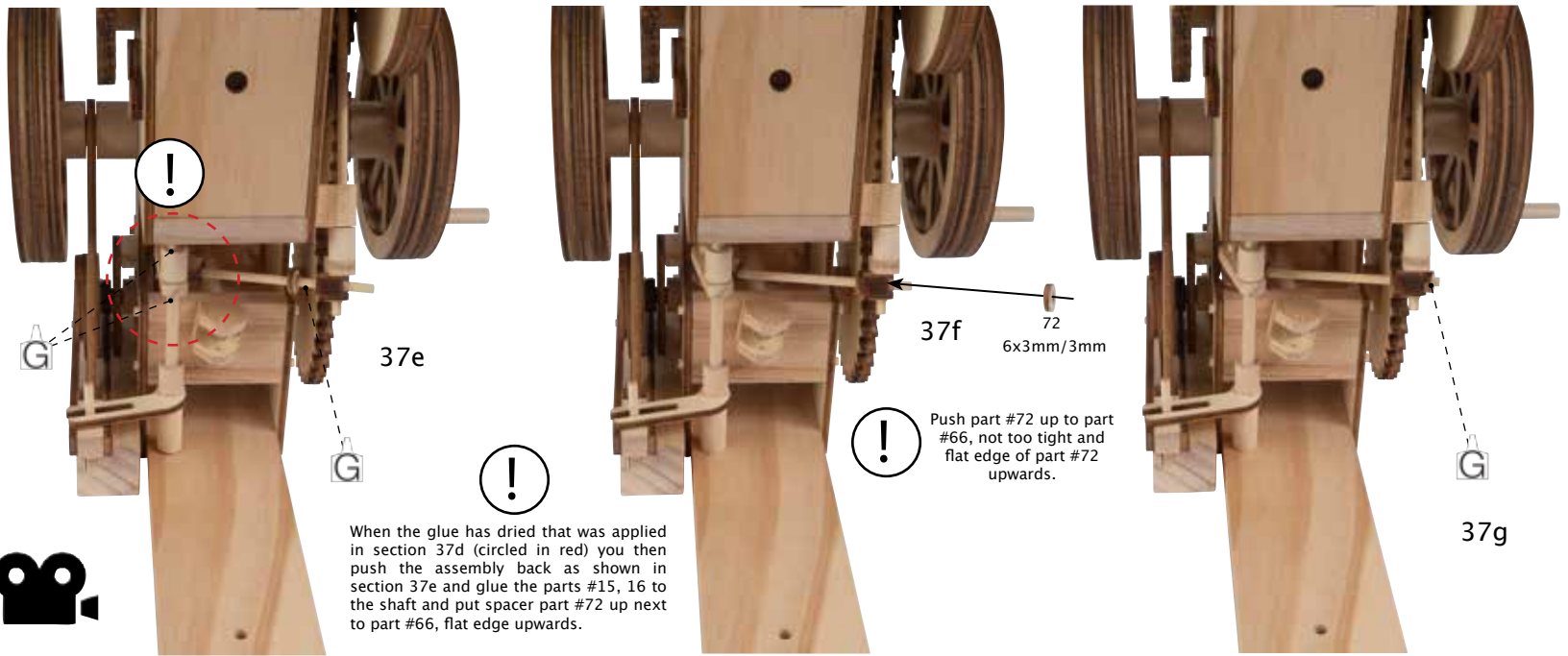
44

8x2mm/3mm



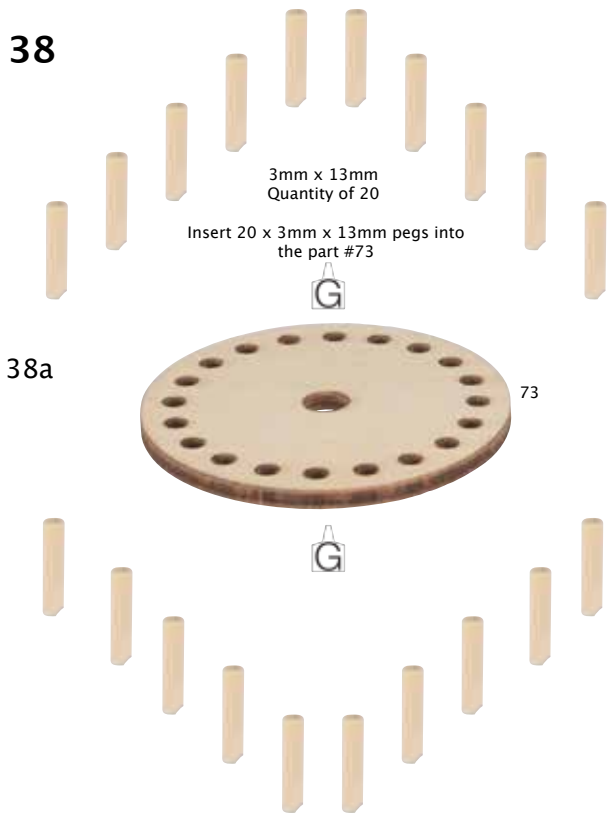
37d





When the glue has dried that was applied in section 37d (circled in red) you then push the assembly back as shown in section 37e and glue the parts #15, 16 to the shaft and put spacer part #72 up next to part #66, flat edge upwards.

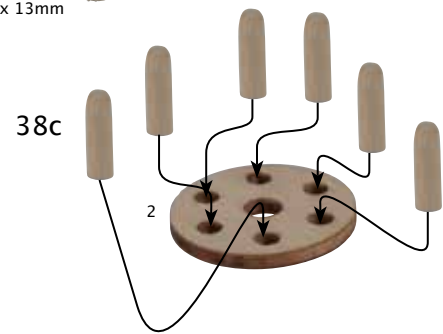
Push part #72 up to part #66, not too tight and flat edge of part #72 upwards.



3mm x 13mm  
Quantity of 20

Insert 20 x 3mm x 13mm pegs into the part #73

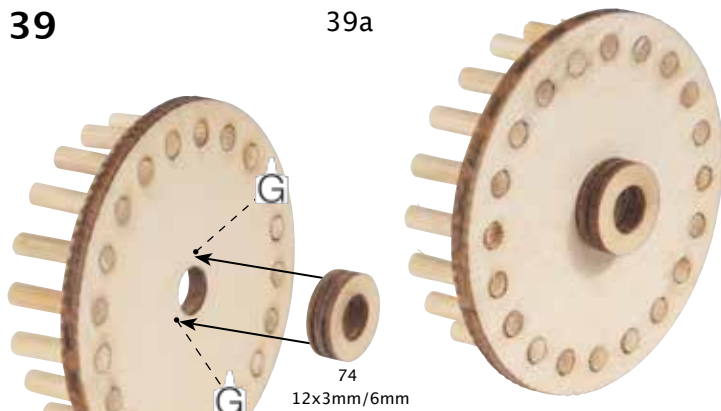
Using the sandpaper provided round off one end of the 4mm x 13mm pegs



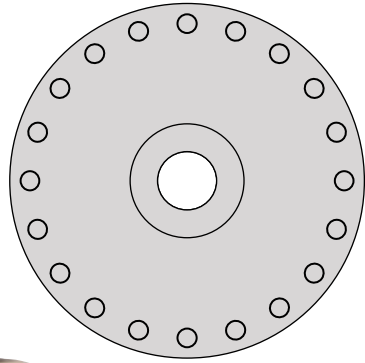
All pegs are size 4mm x 13mm  
Glue all into place

39

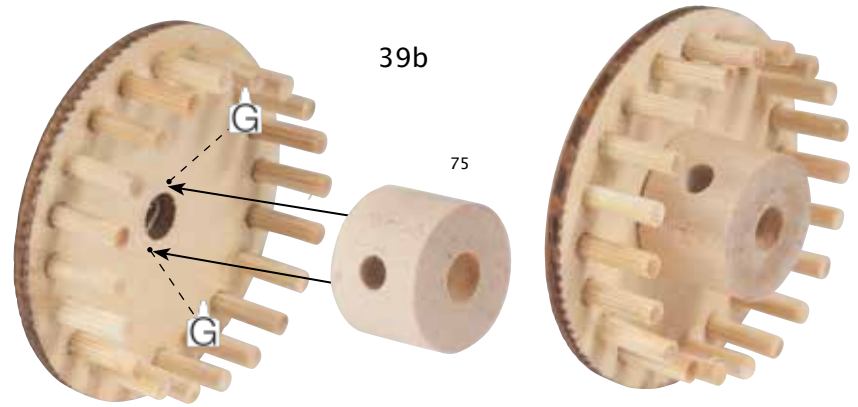
39a



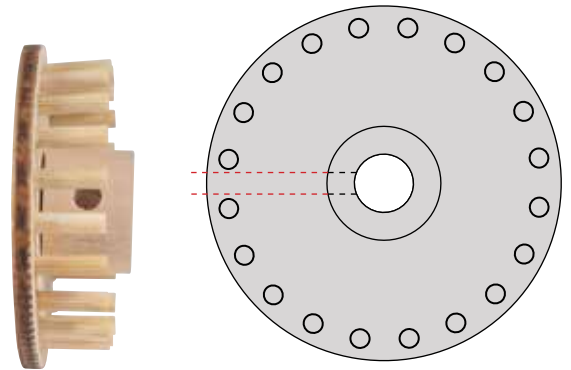
Ensure that the hole in the spacer (part #74) lines up perfectly with the hole in the toothed wheel (part #73).



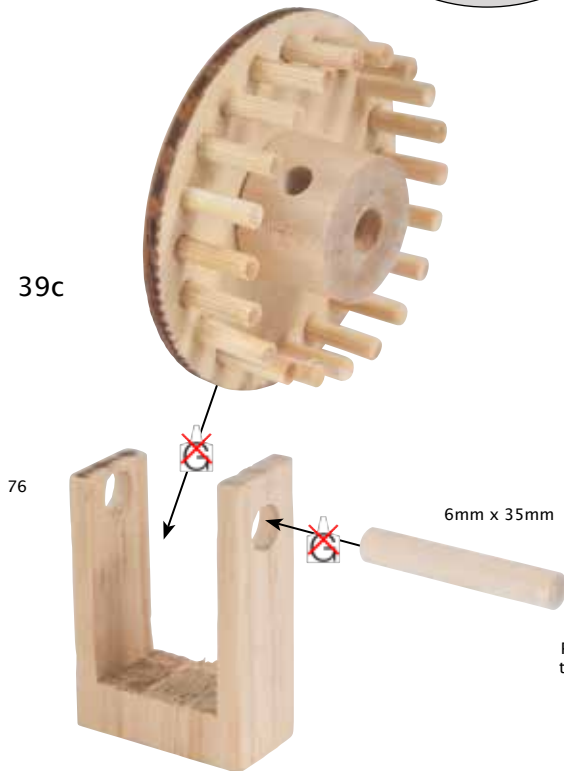
39b



The hole in the part #75 needs to be lined up to be between the pegs so that glue can be applied later.

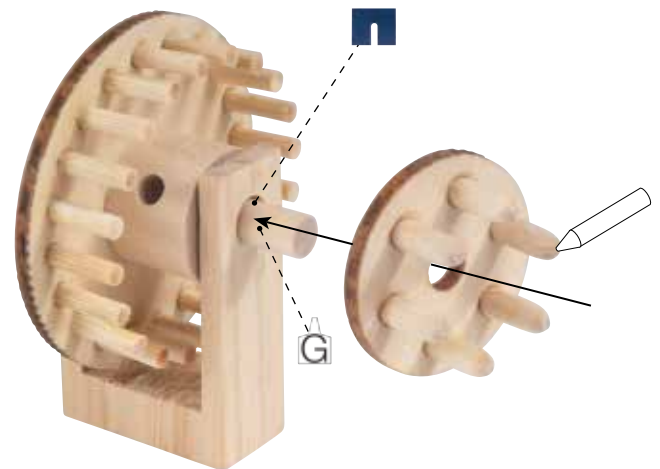


39c

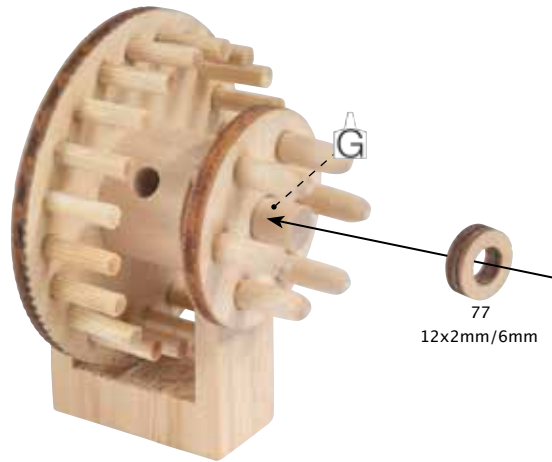


Push 6mm x 35mm peg through both holes until flush with the back of part #76.

39d



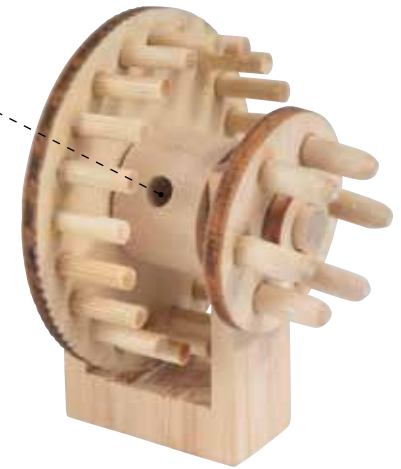
39e



77  
12x2mm/6mm

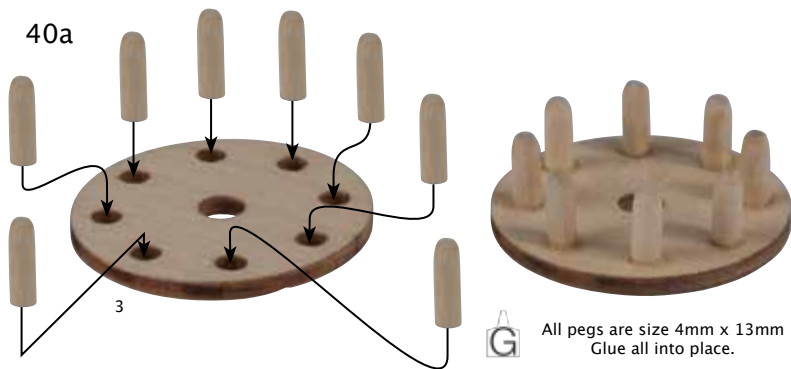


Apply glue to the shaft through the hole in part #75 and then rotate toothed wheel to distribute the glue.



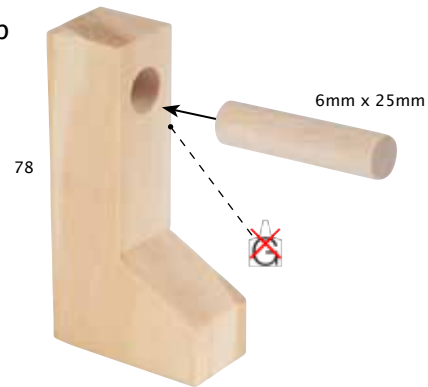
40

Round off ends of pegs with sandpaper.



All pegs are size 4mm x 13mm  
Glue all into place.

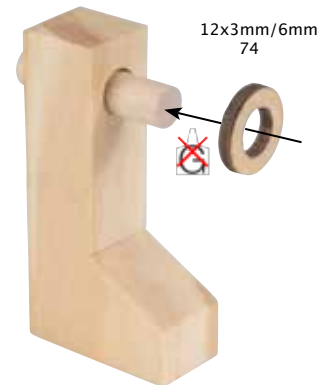
40b



78

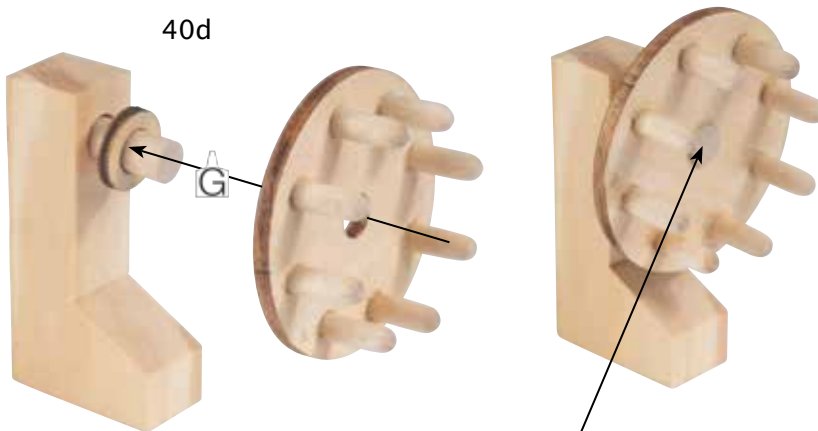
6mm x 25mm

40c



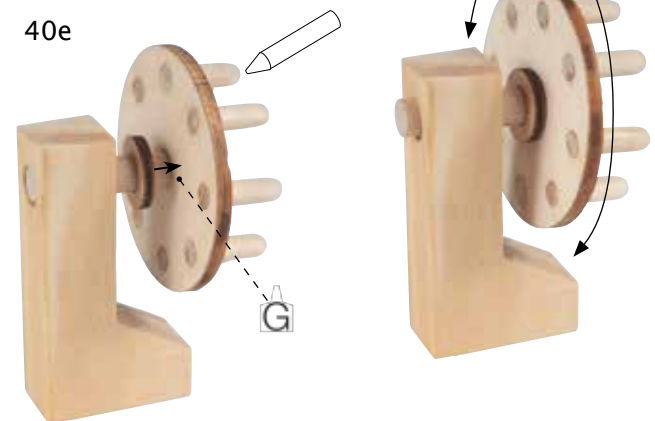
12x3mm/6mm  
74

40d

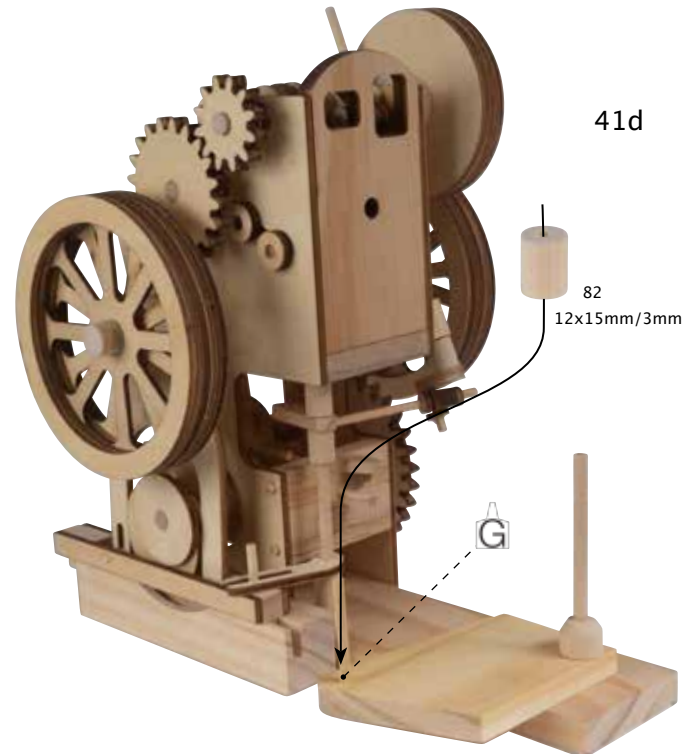
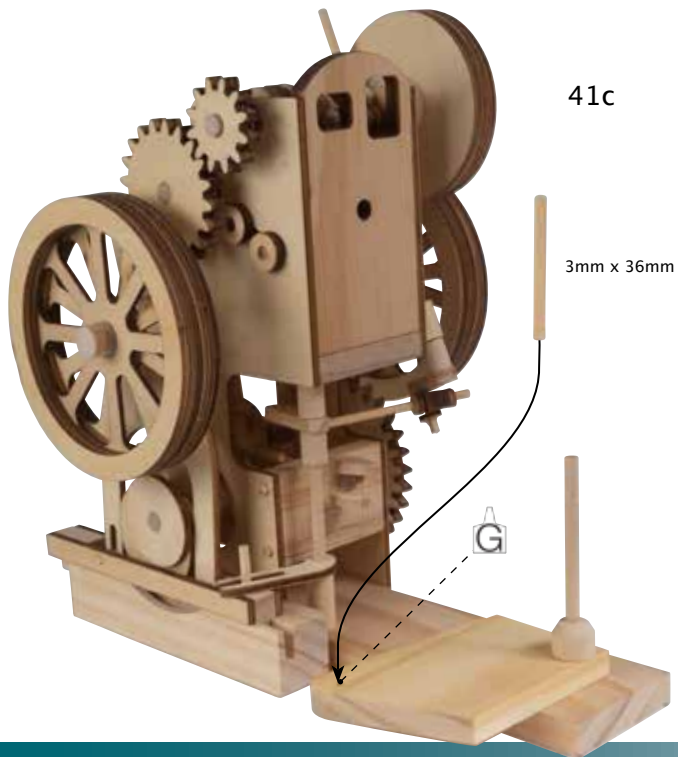
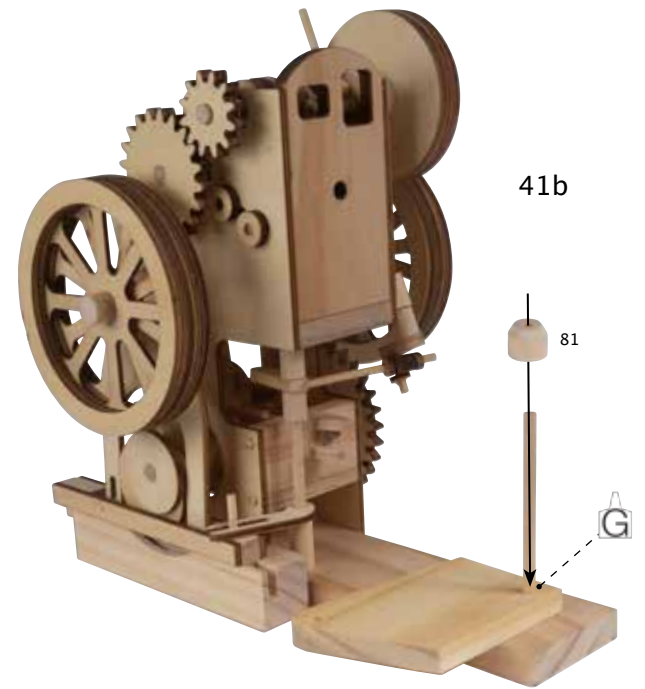
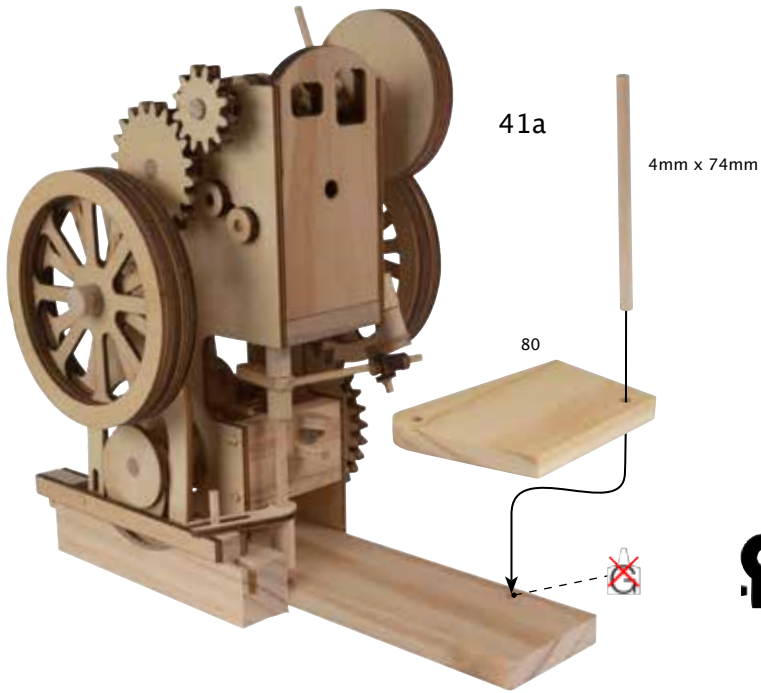


End of 6mm x 25mm peg flush with surface of part #3.

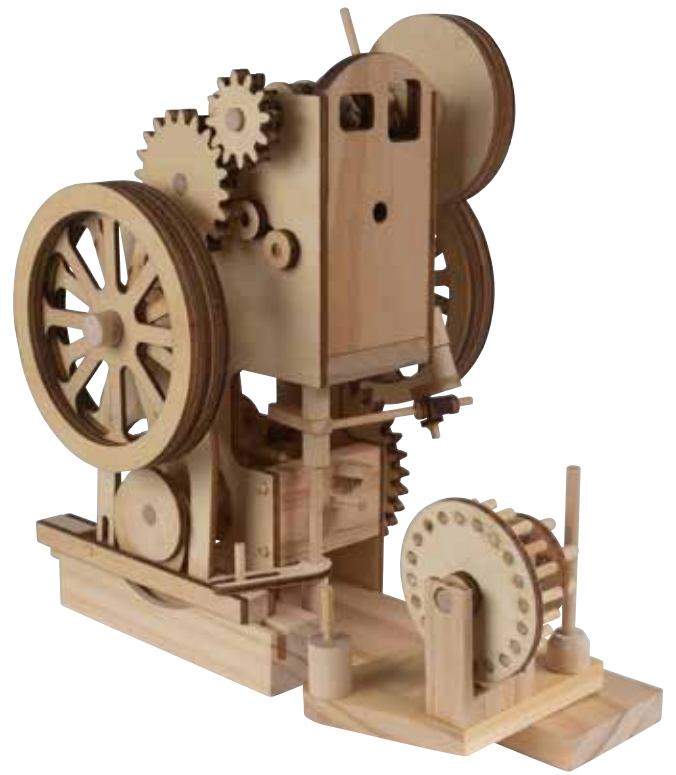
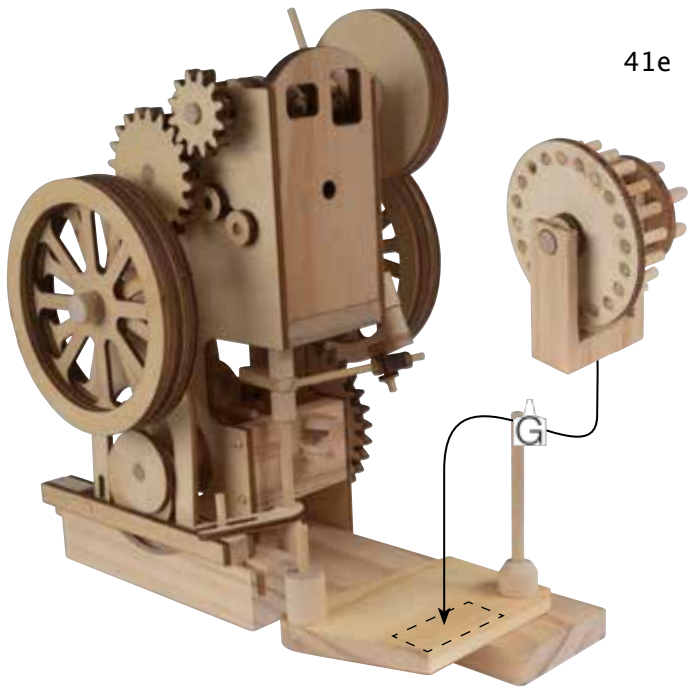
40e



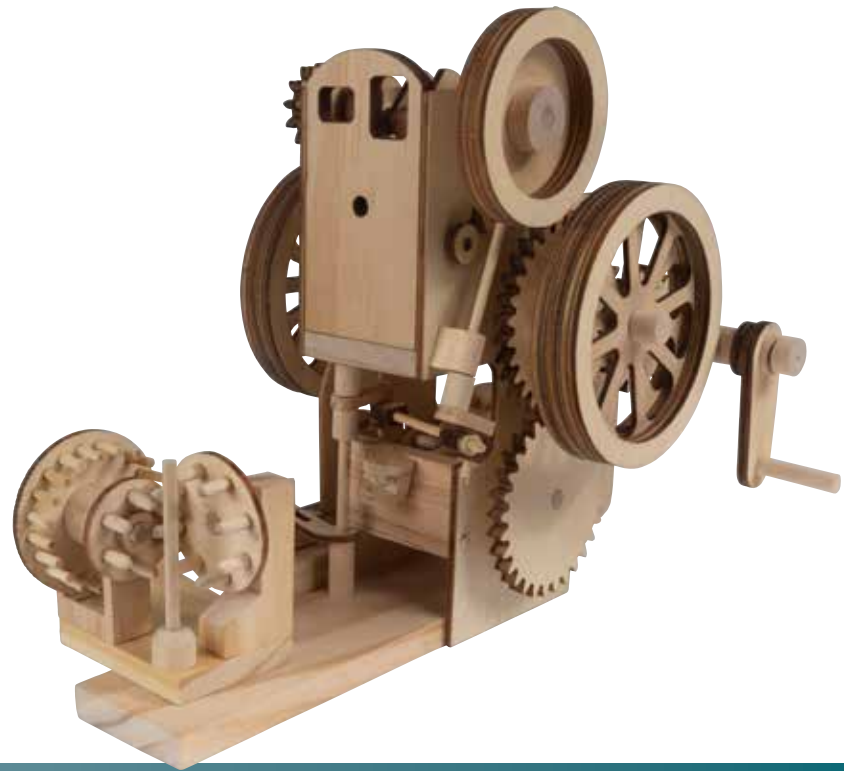
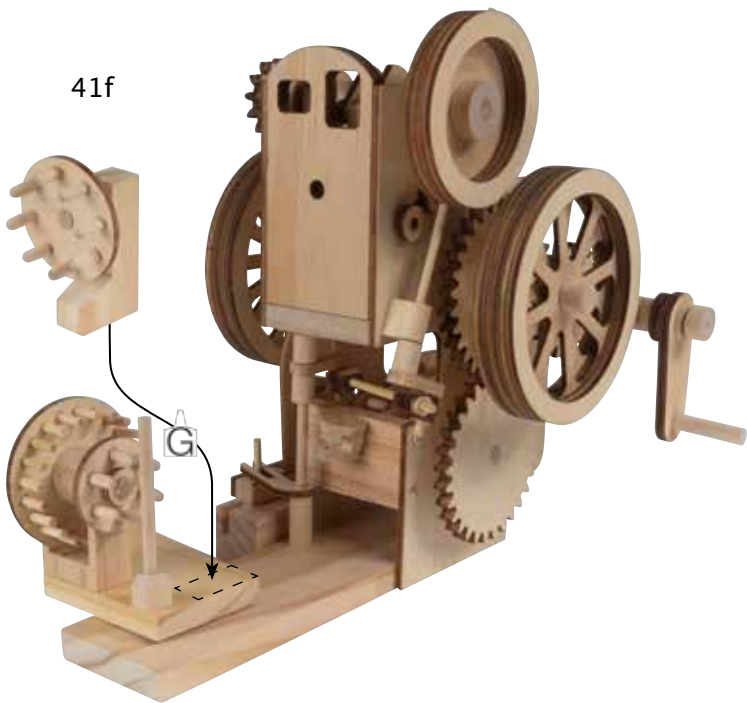




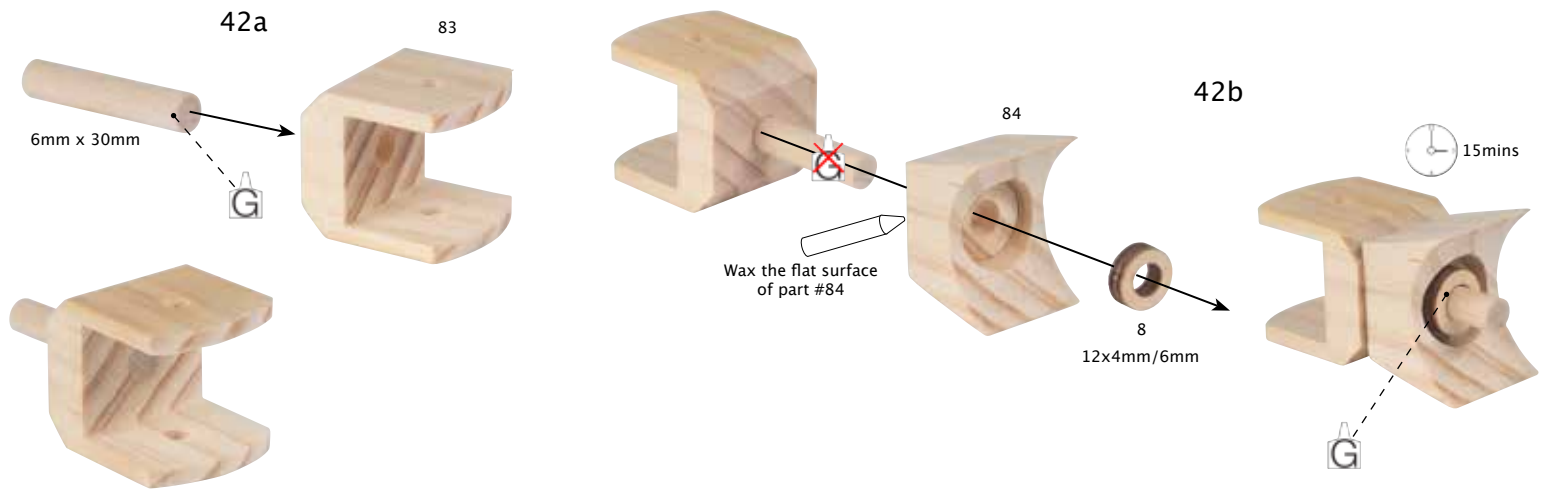
41e



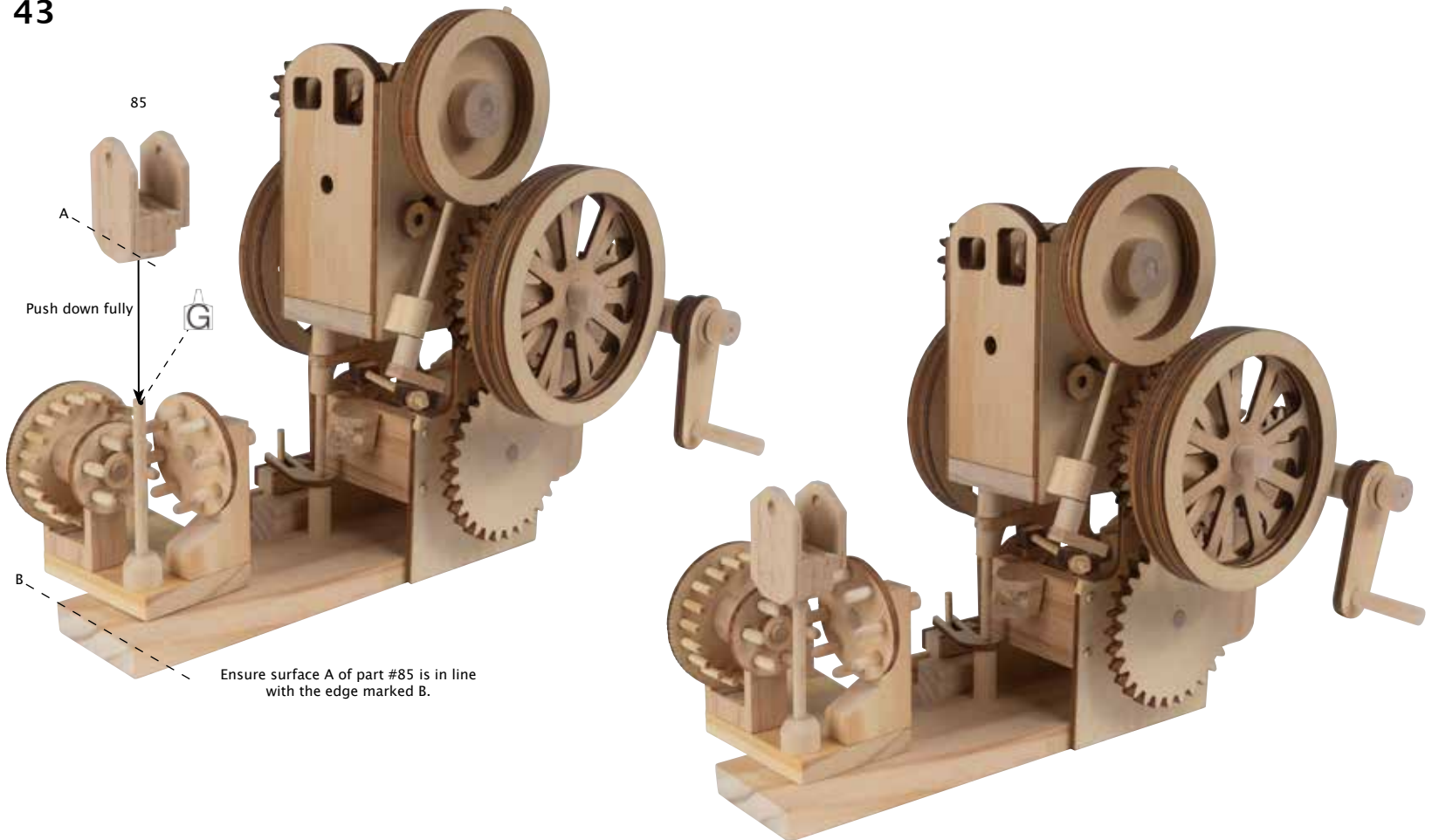
41f



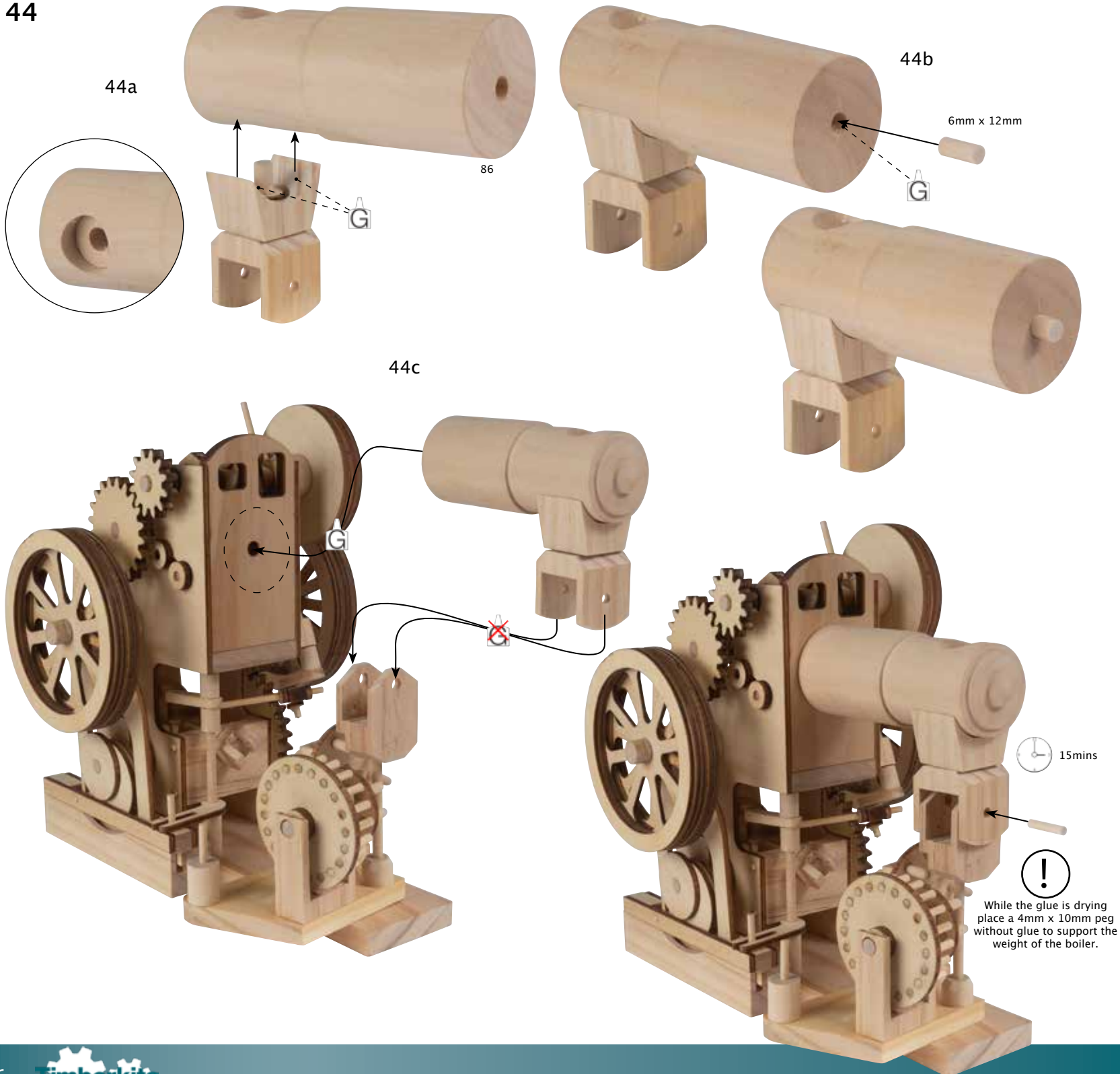
42



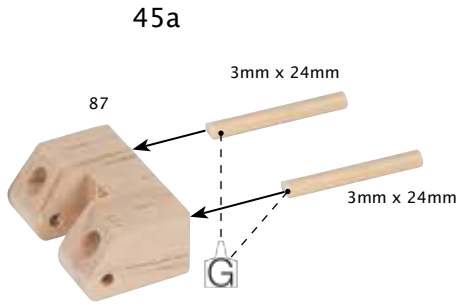
43



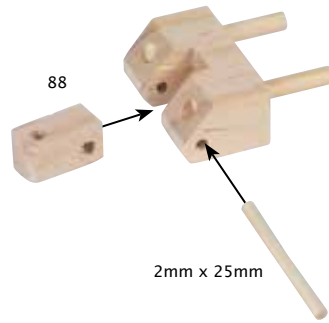
44



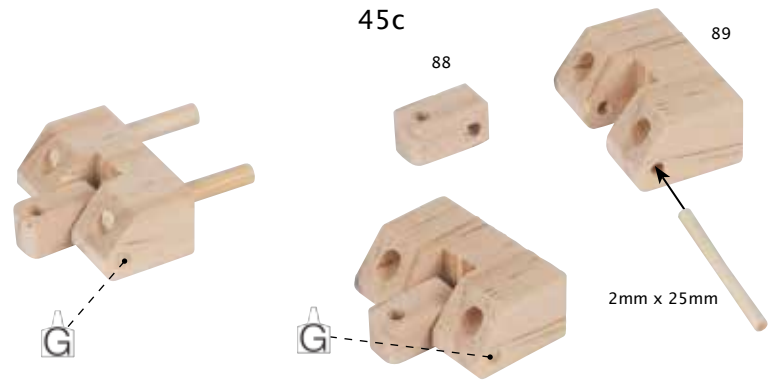
45



45b

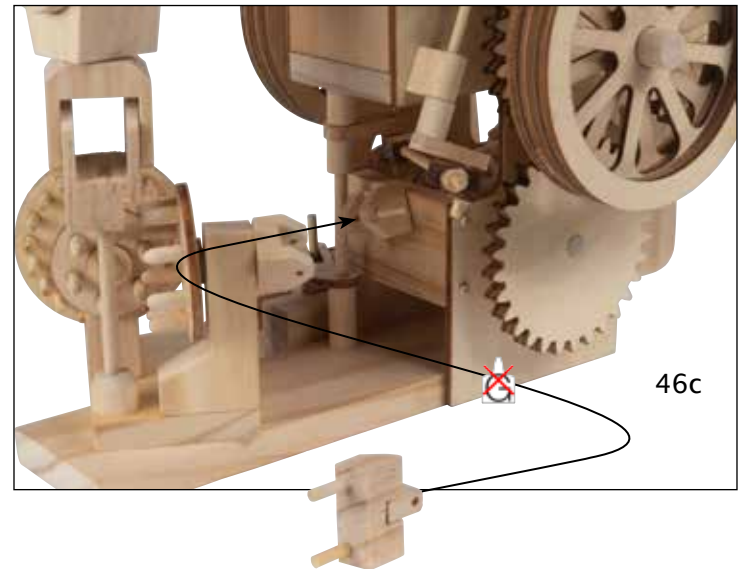
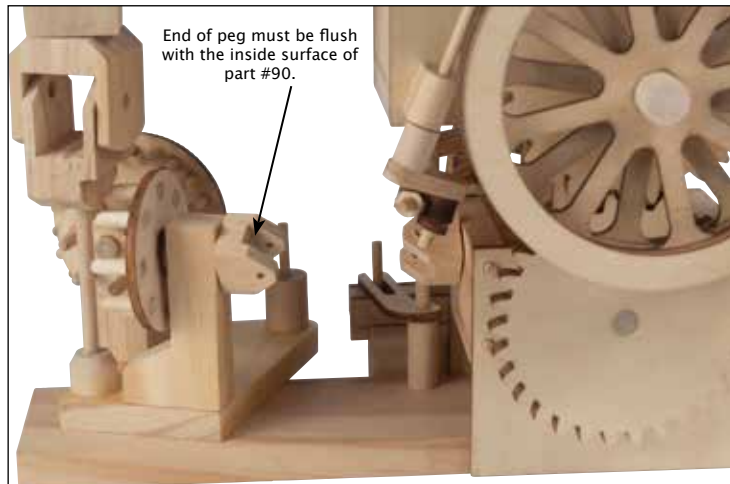
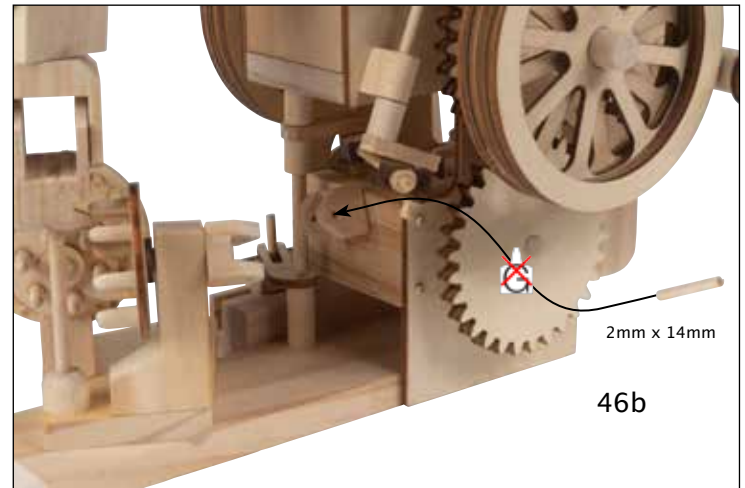
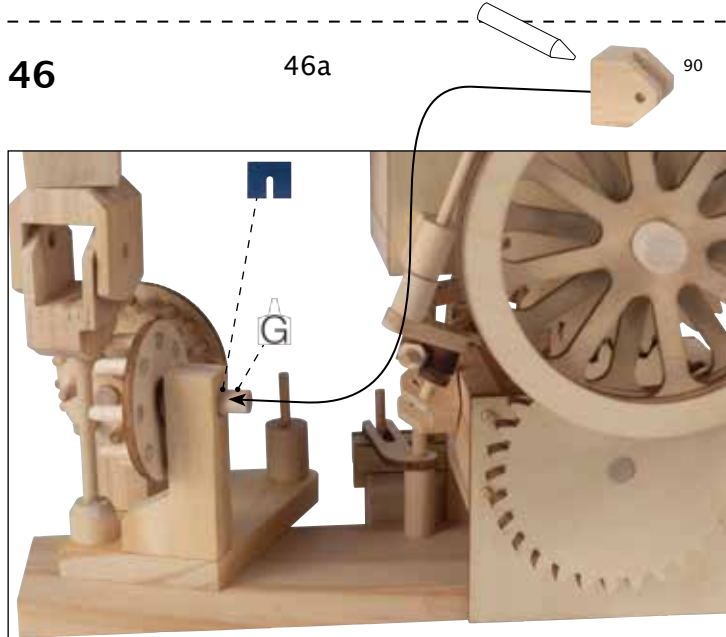


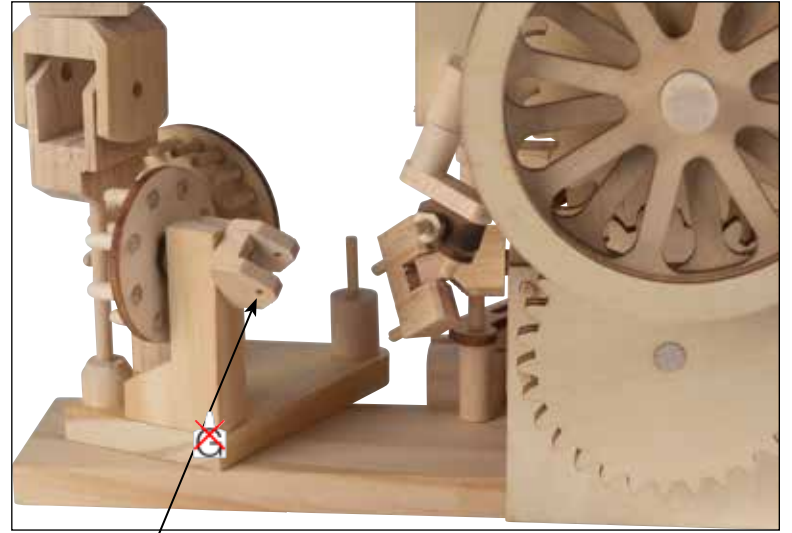
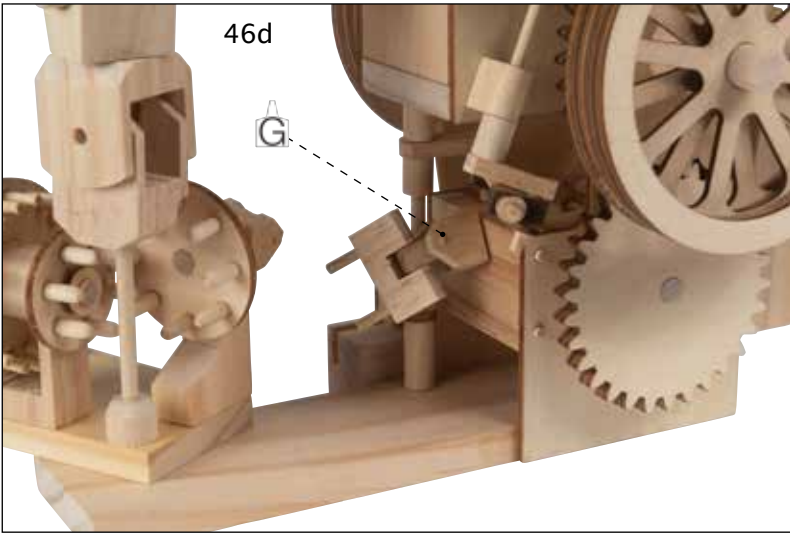
45c



46

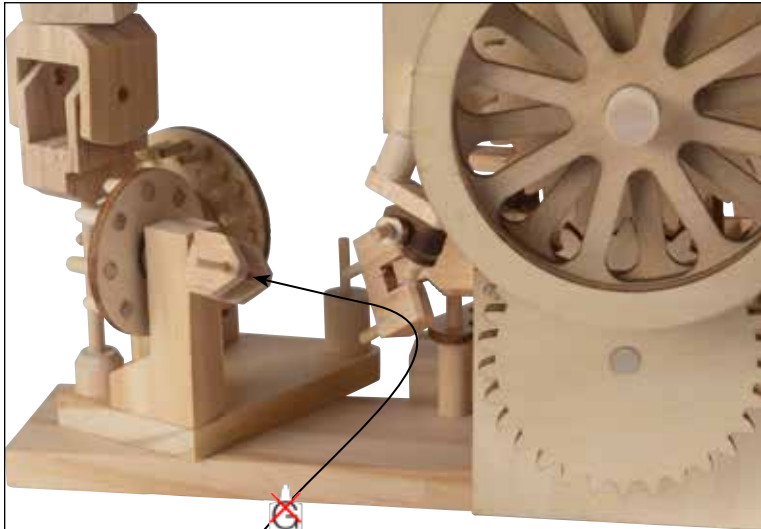
46a



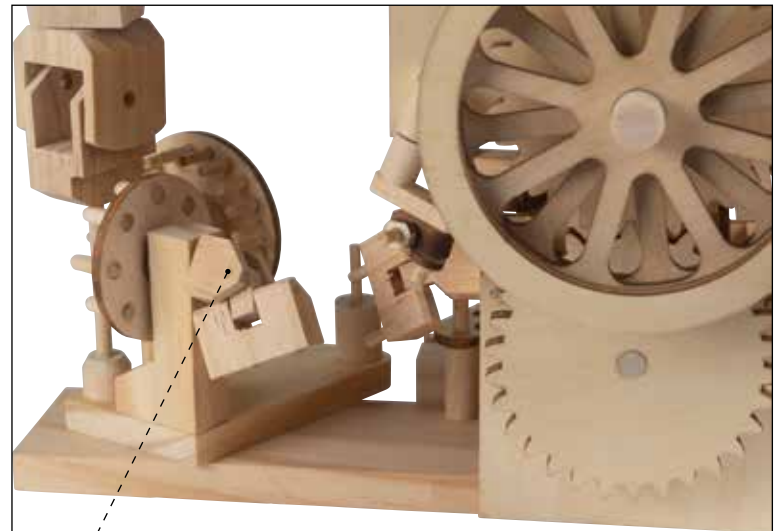
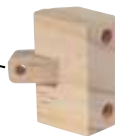


46e

2mm x 14mm

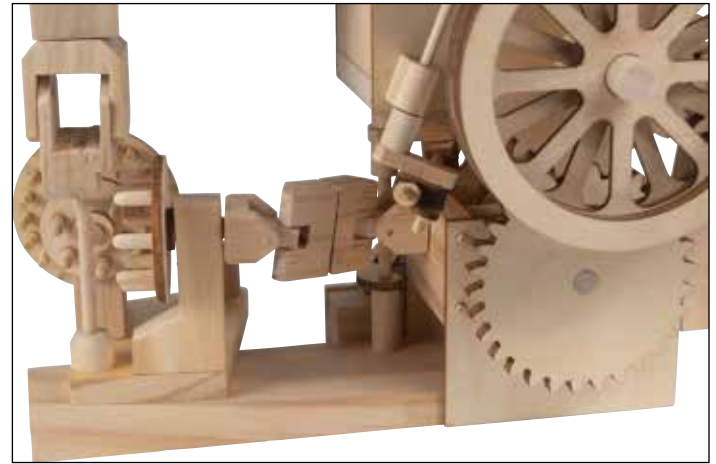
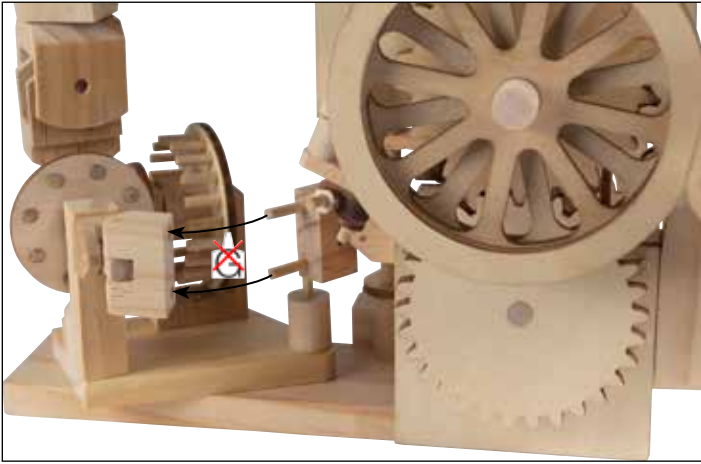


46f



G 46g

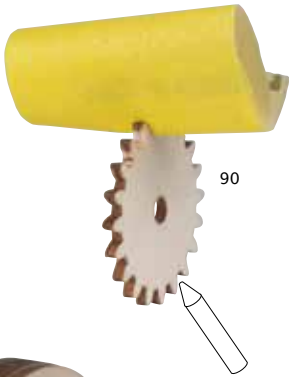
47



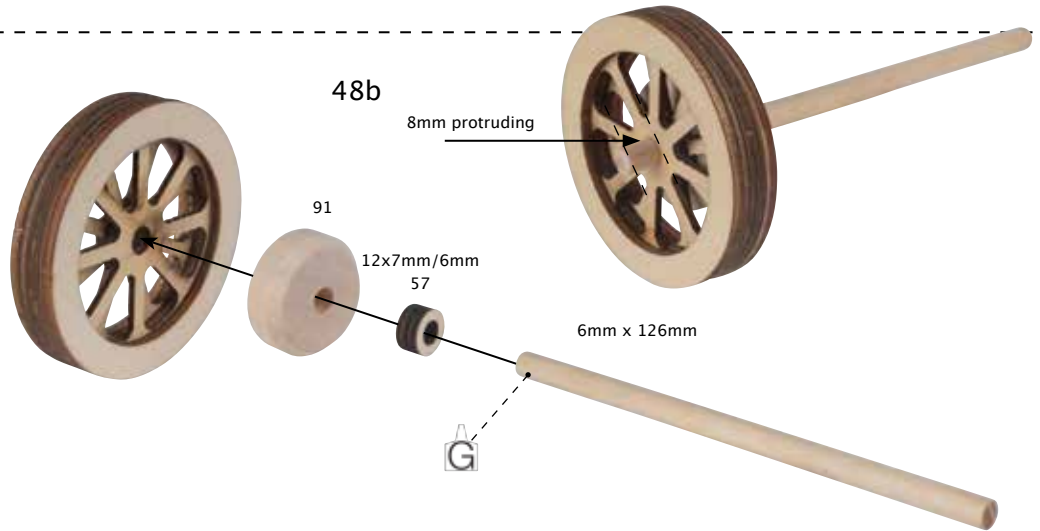
48

Using some sandpaper round off between the teeth of the cogs to ensure they mesh correctly

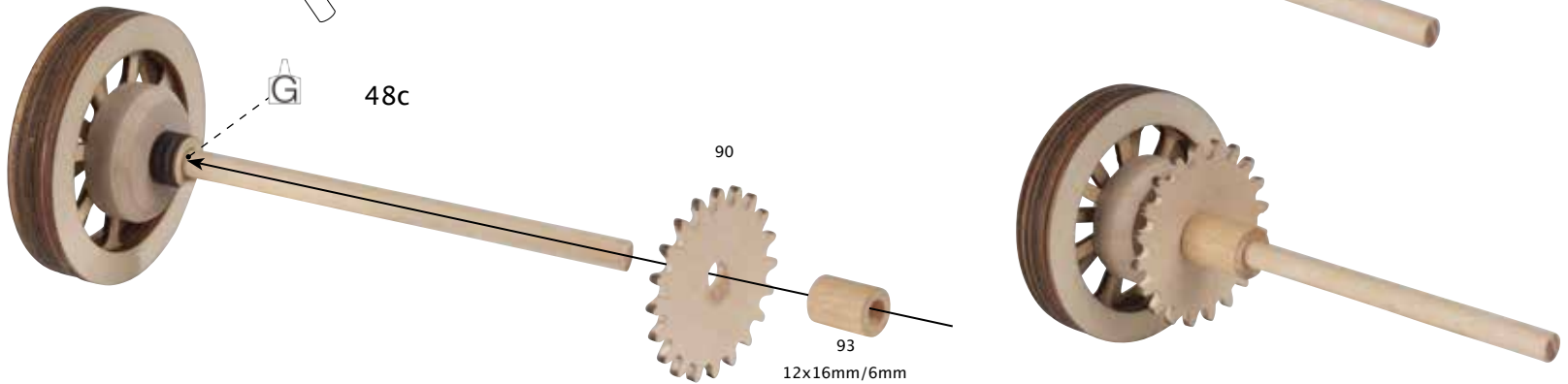
48a



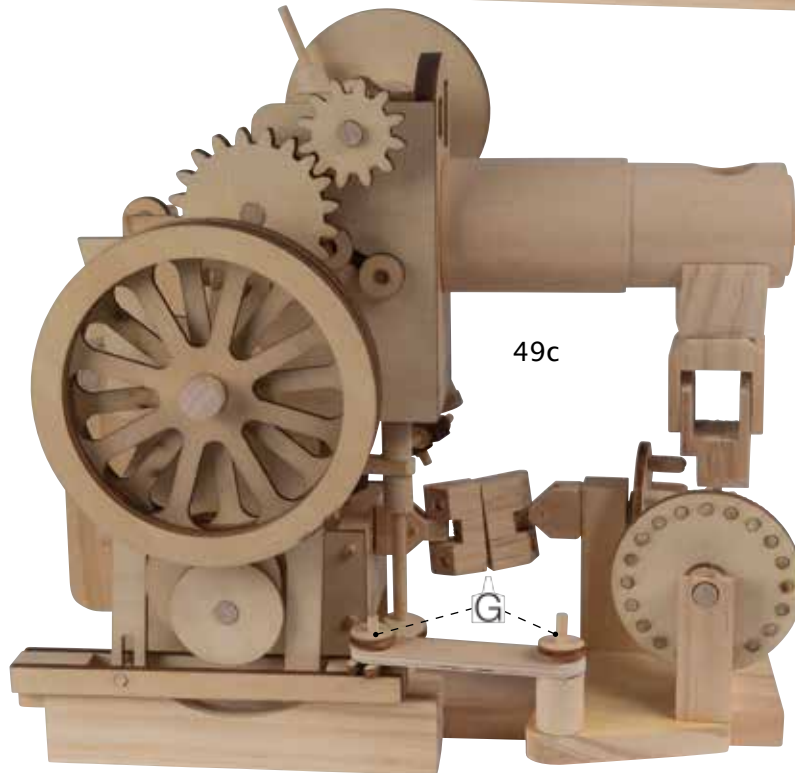
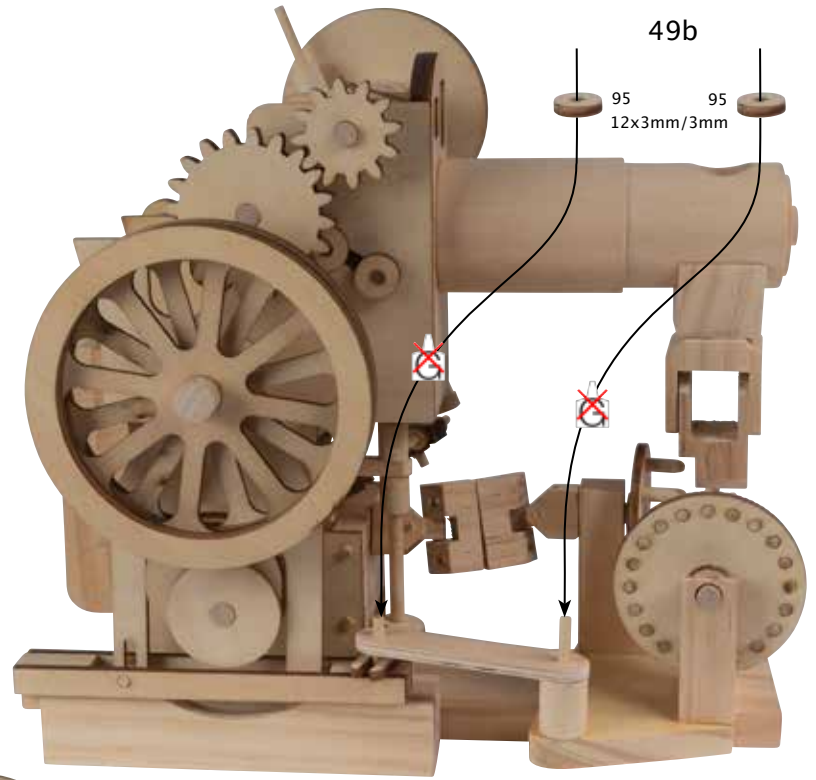
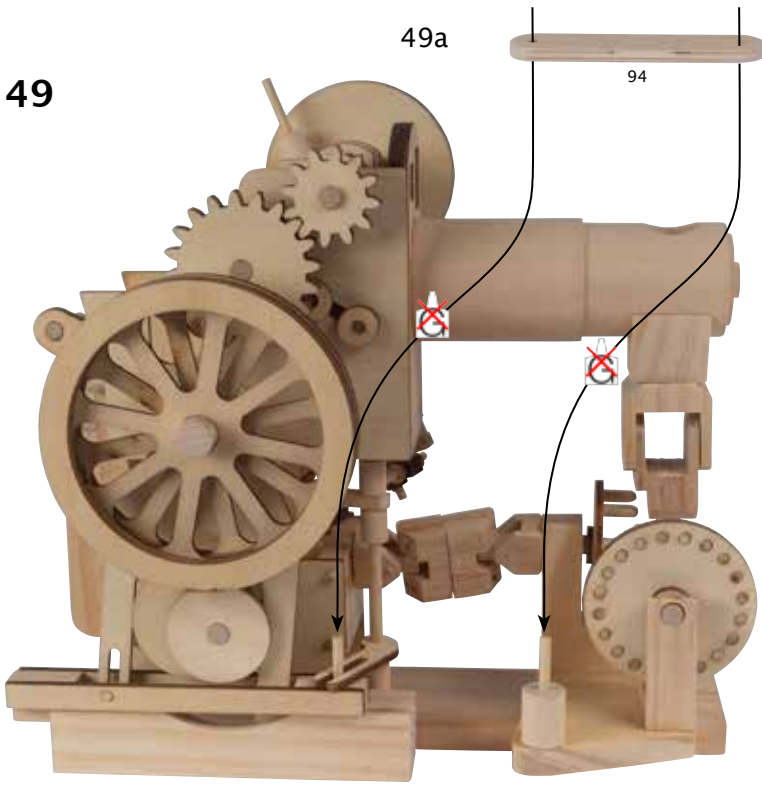
48b



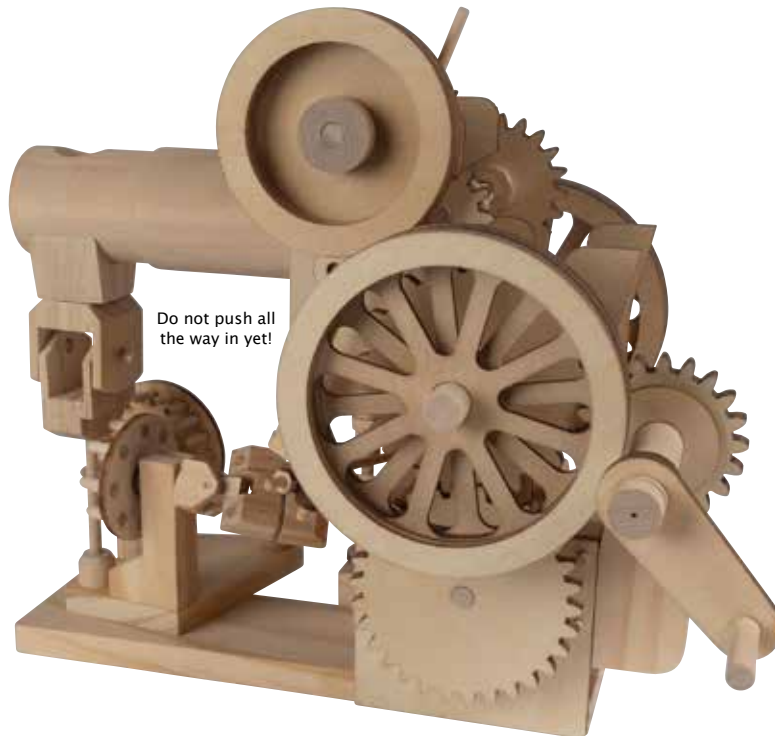
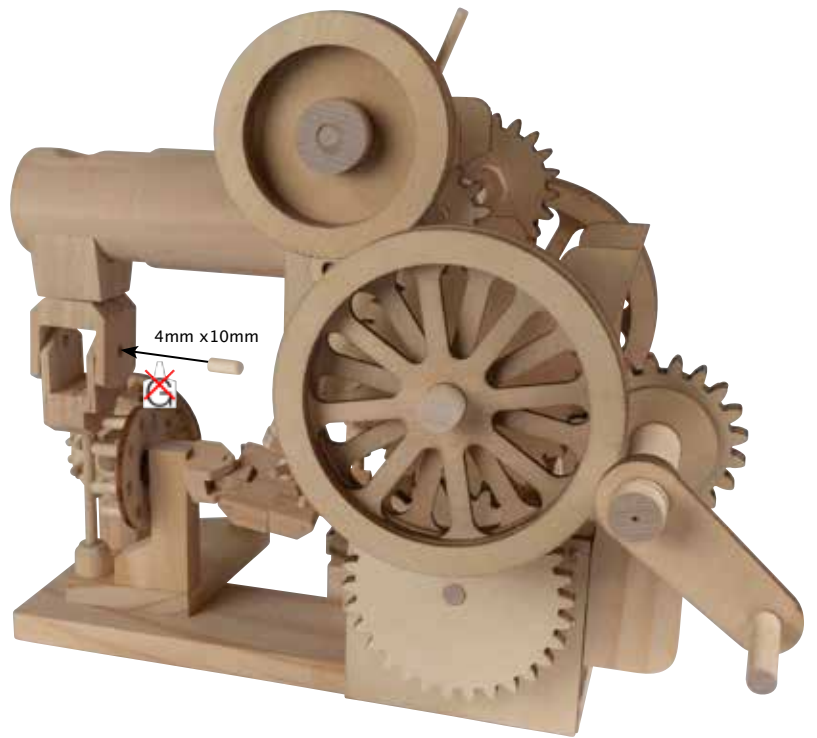
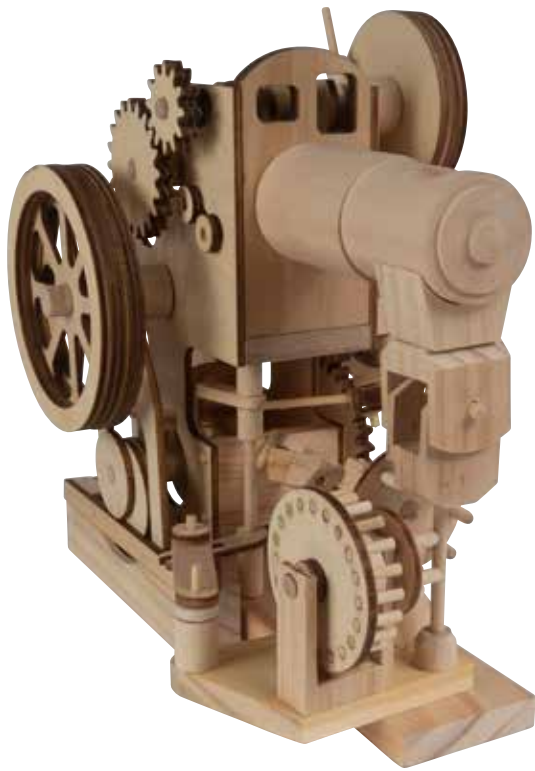
48c

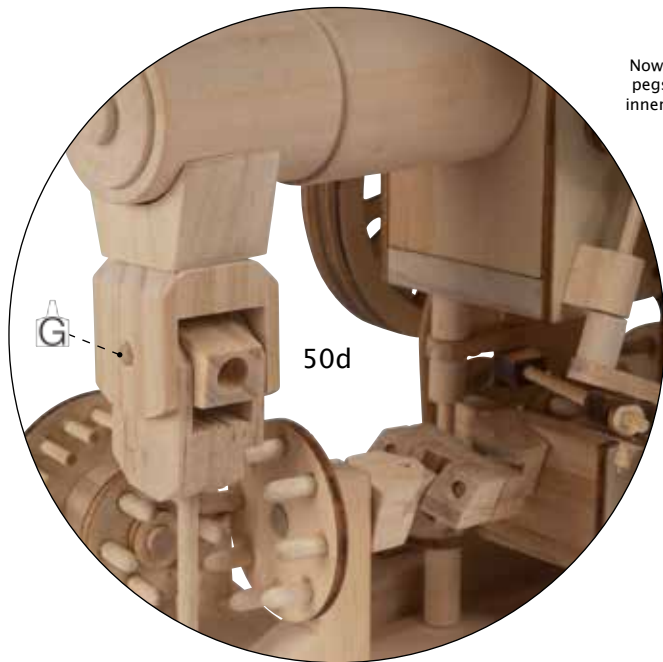
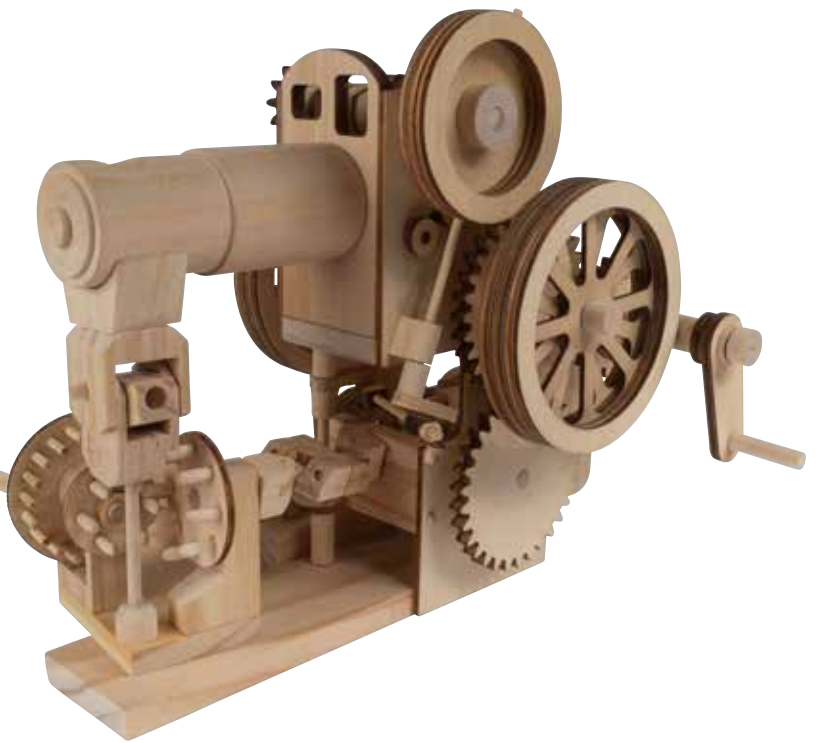
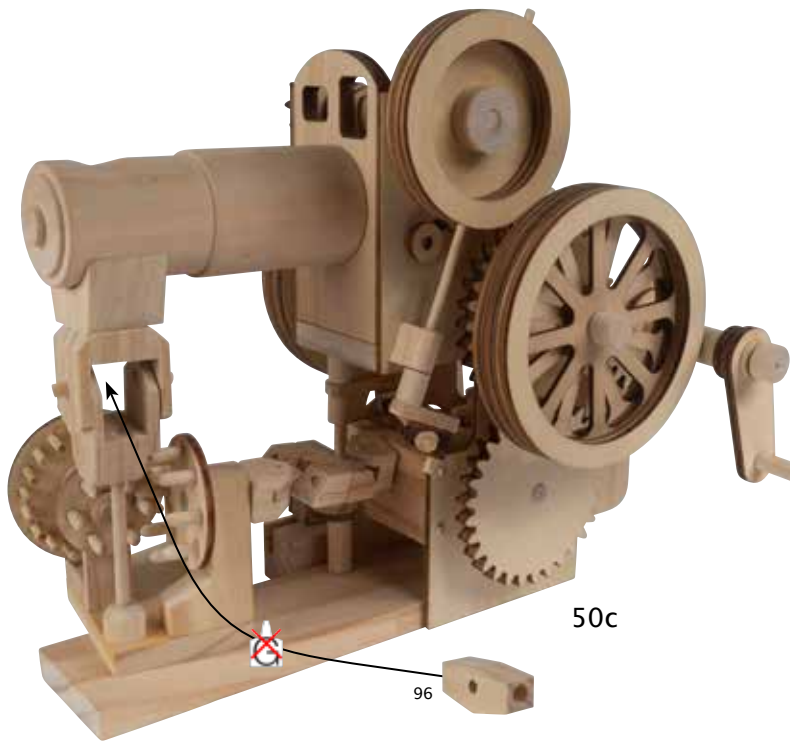


49

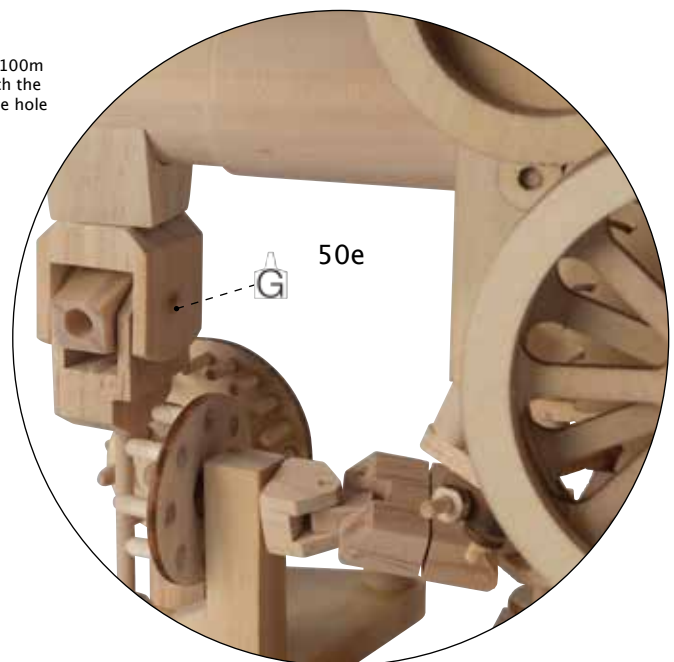




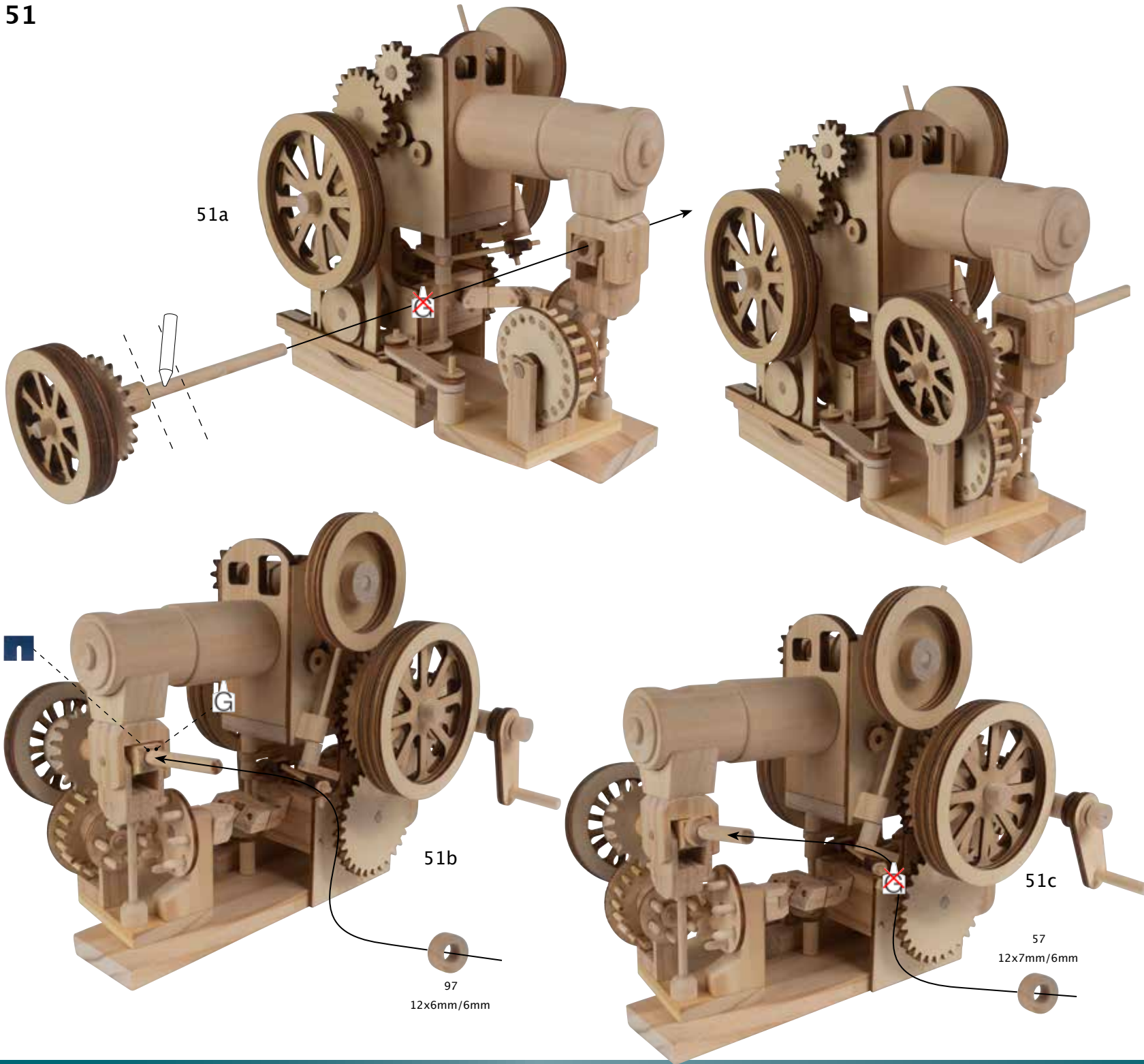




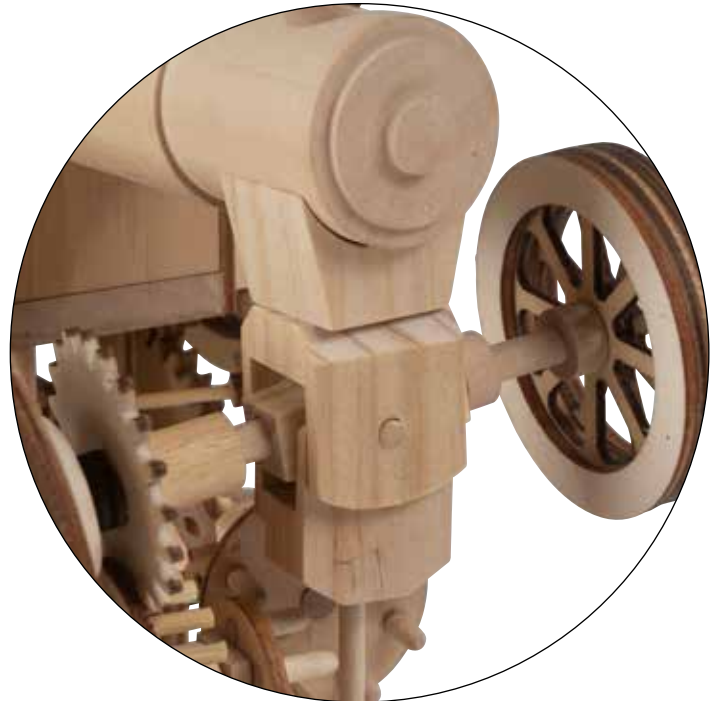
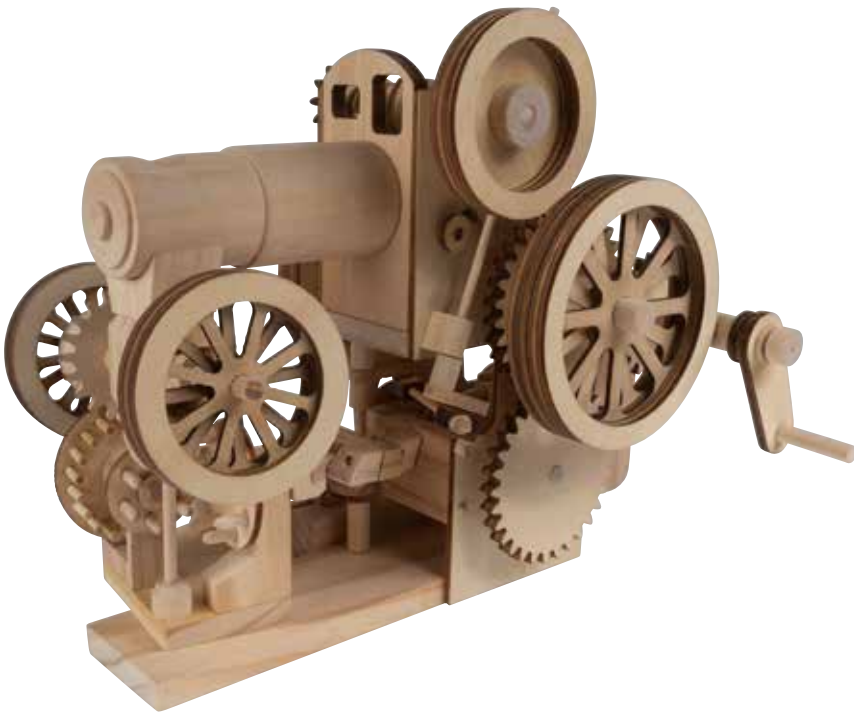
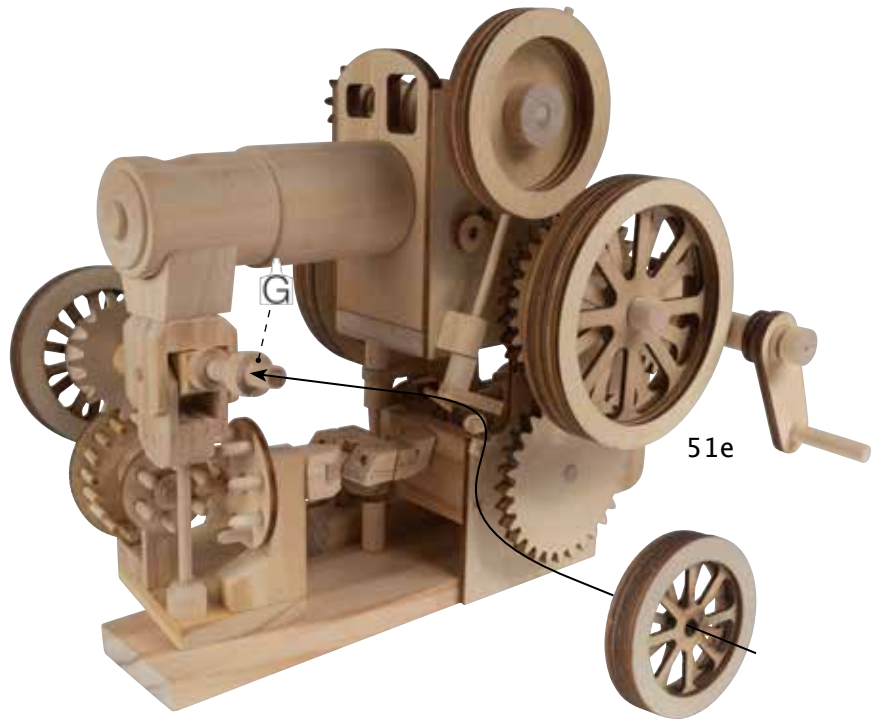
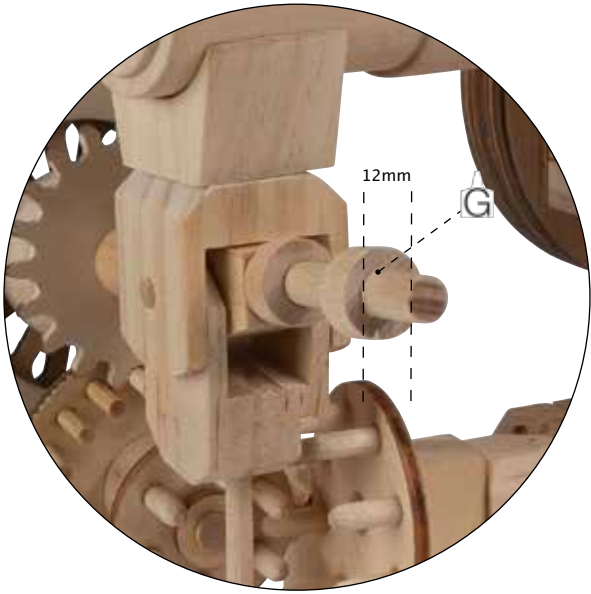
Now push the 4mm x 100m  
pegs in until they reach the  
inner surface. Keep axle hole  
clear.



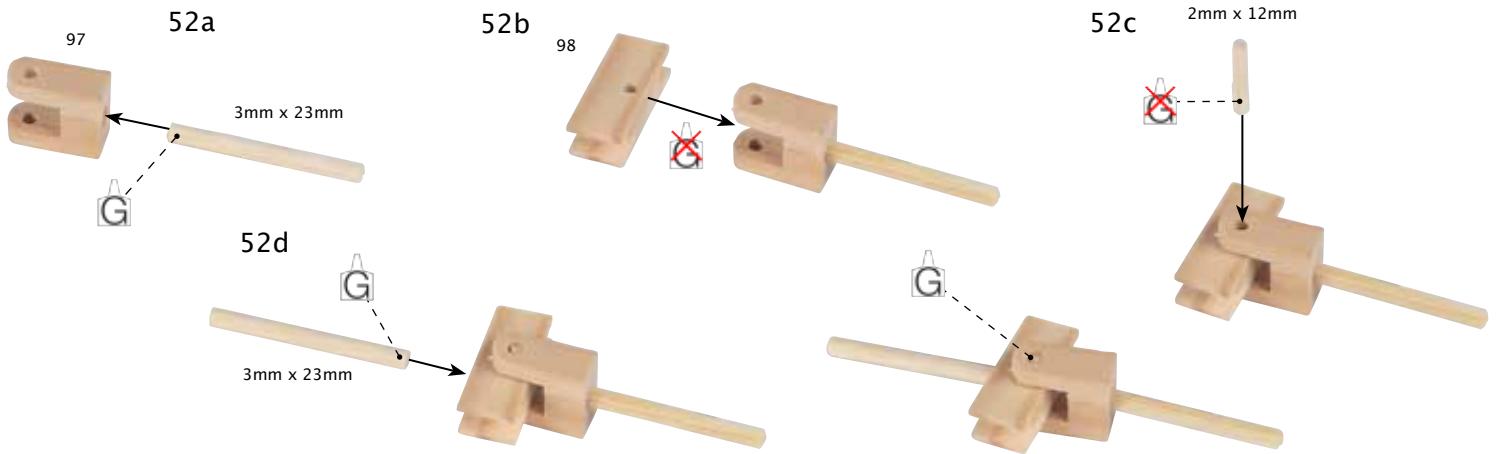
51



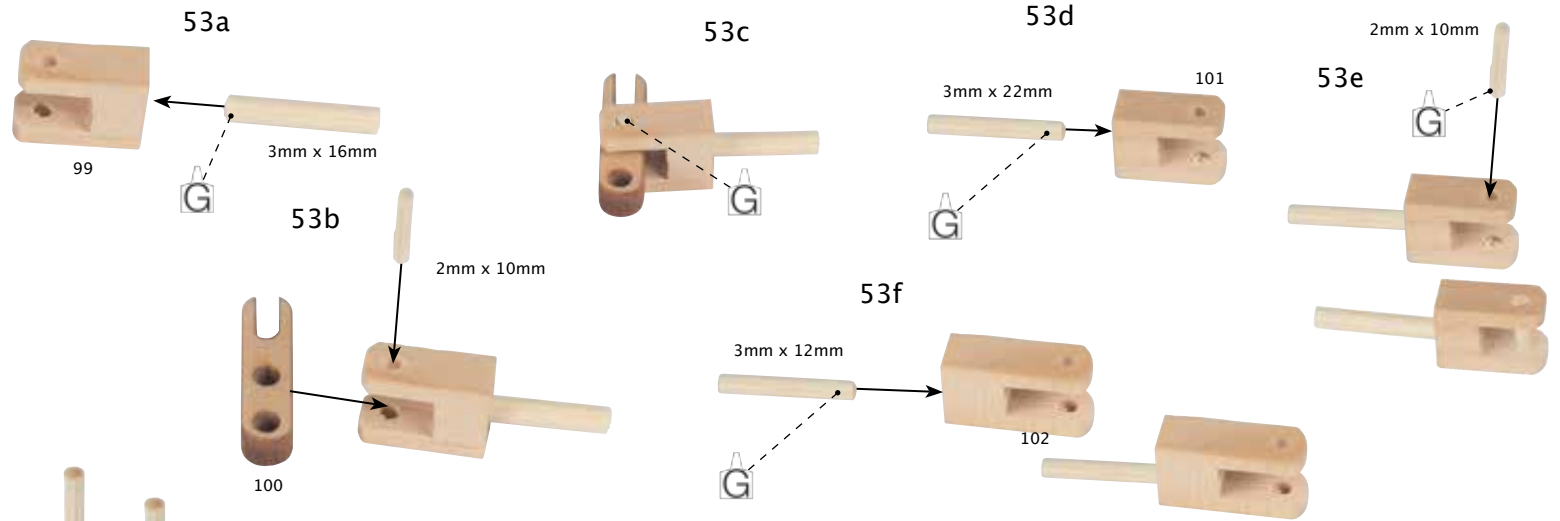
51d



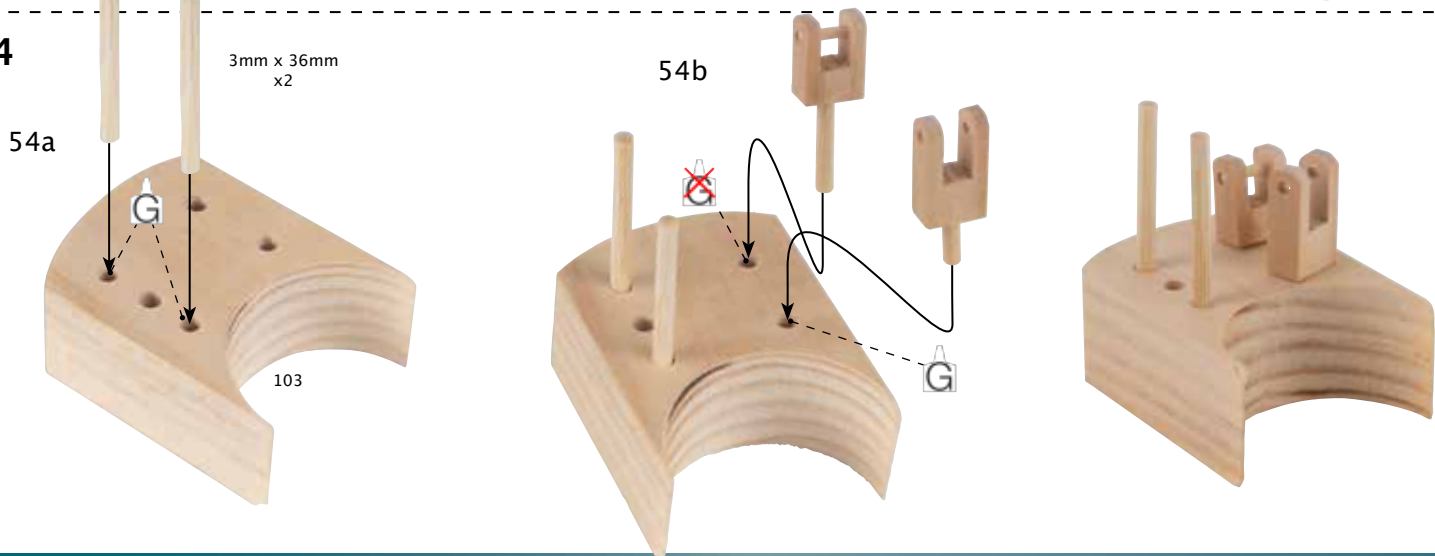
52



53



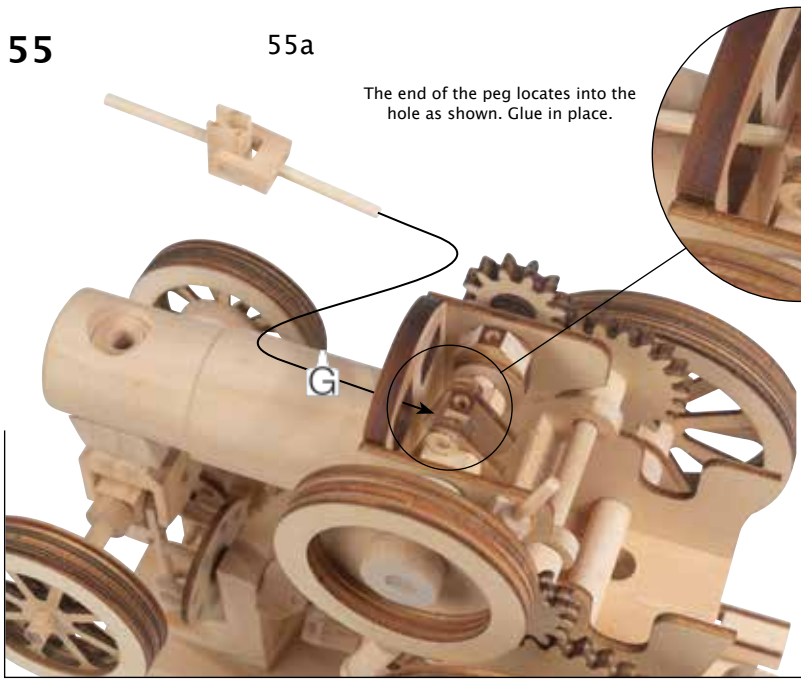
54



55

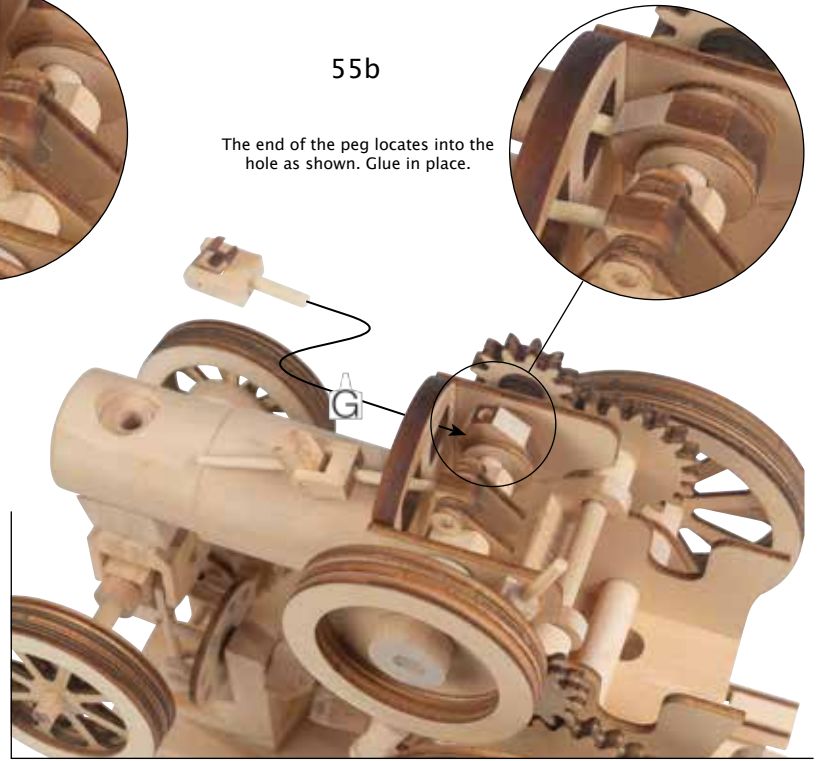
55a

The end of the peg locates into the hole as shown. Glue in place.



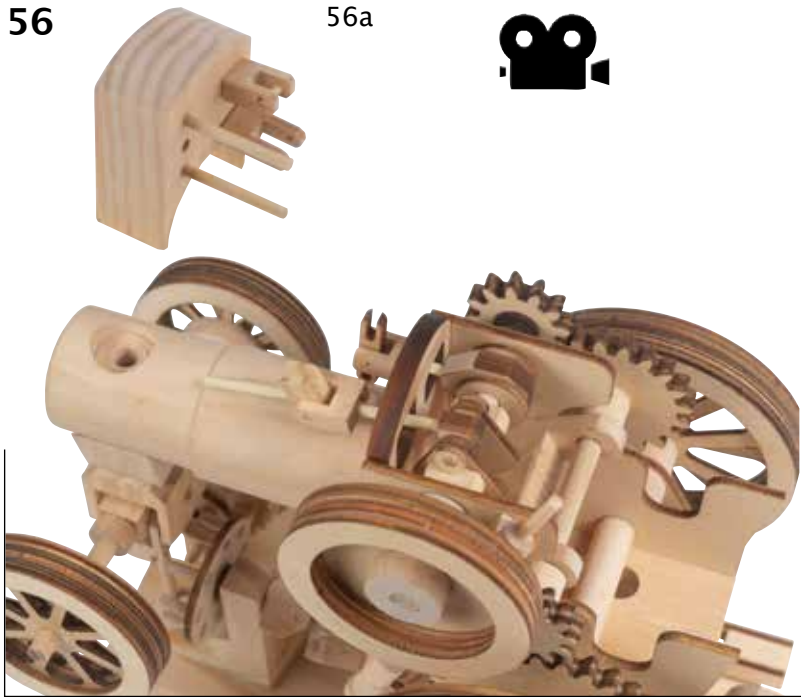
55b

The end of the peg locates into the hole as shown. Glue in place.

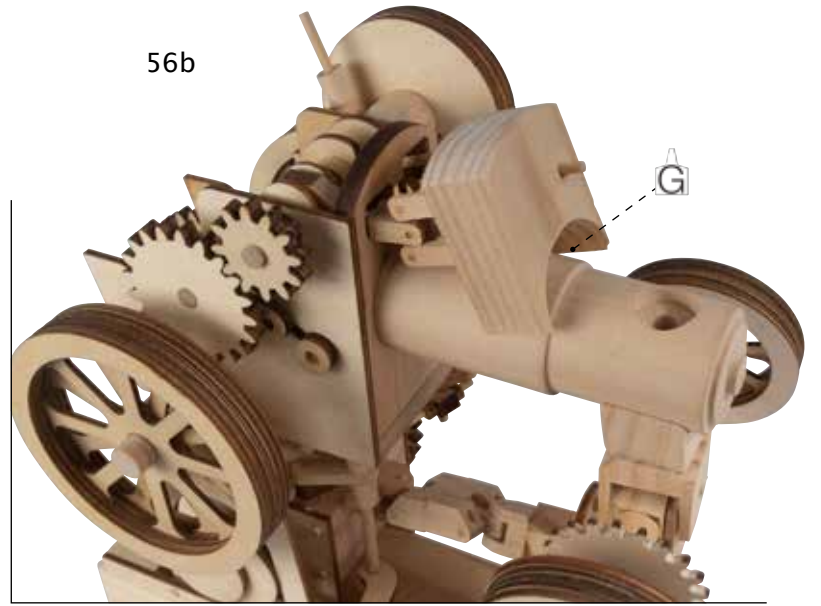


56

56a

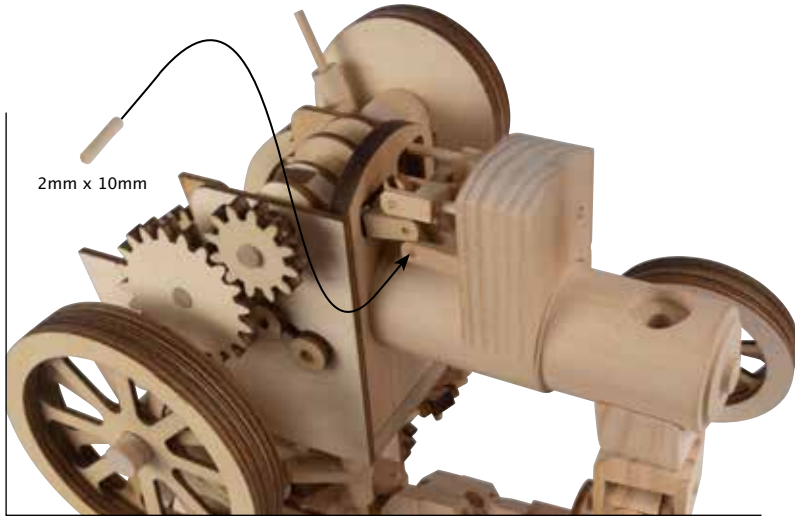


56b

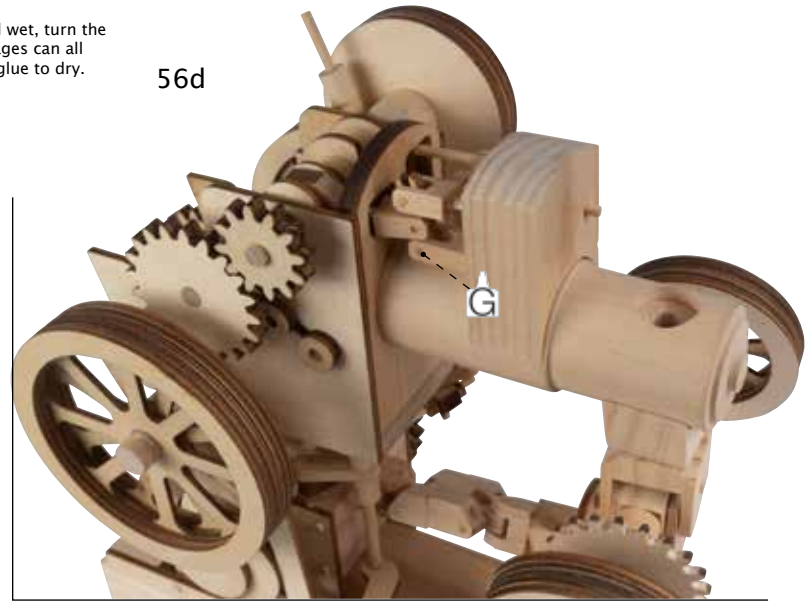


56c

Once 56b, 56c, and 56d are done and while the glue is still wet, turn the handle and slide part #103 along the boiler to ensure linkages can all move freely before pressing down firmly and allowing the glue to dry.



56d

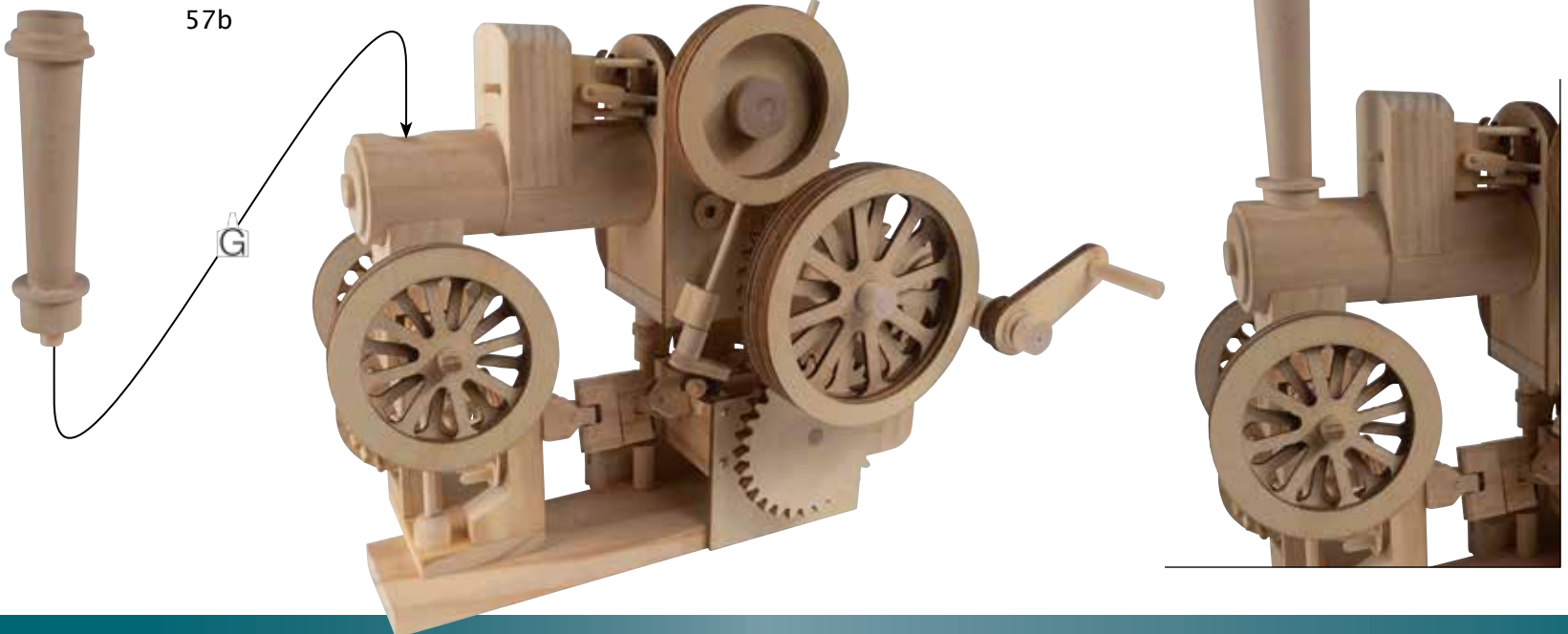


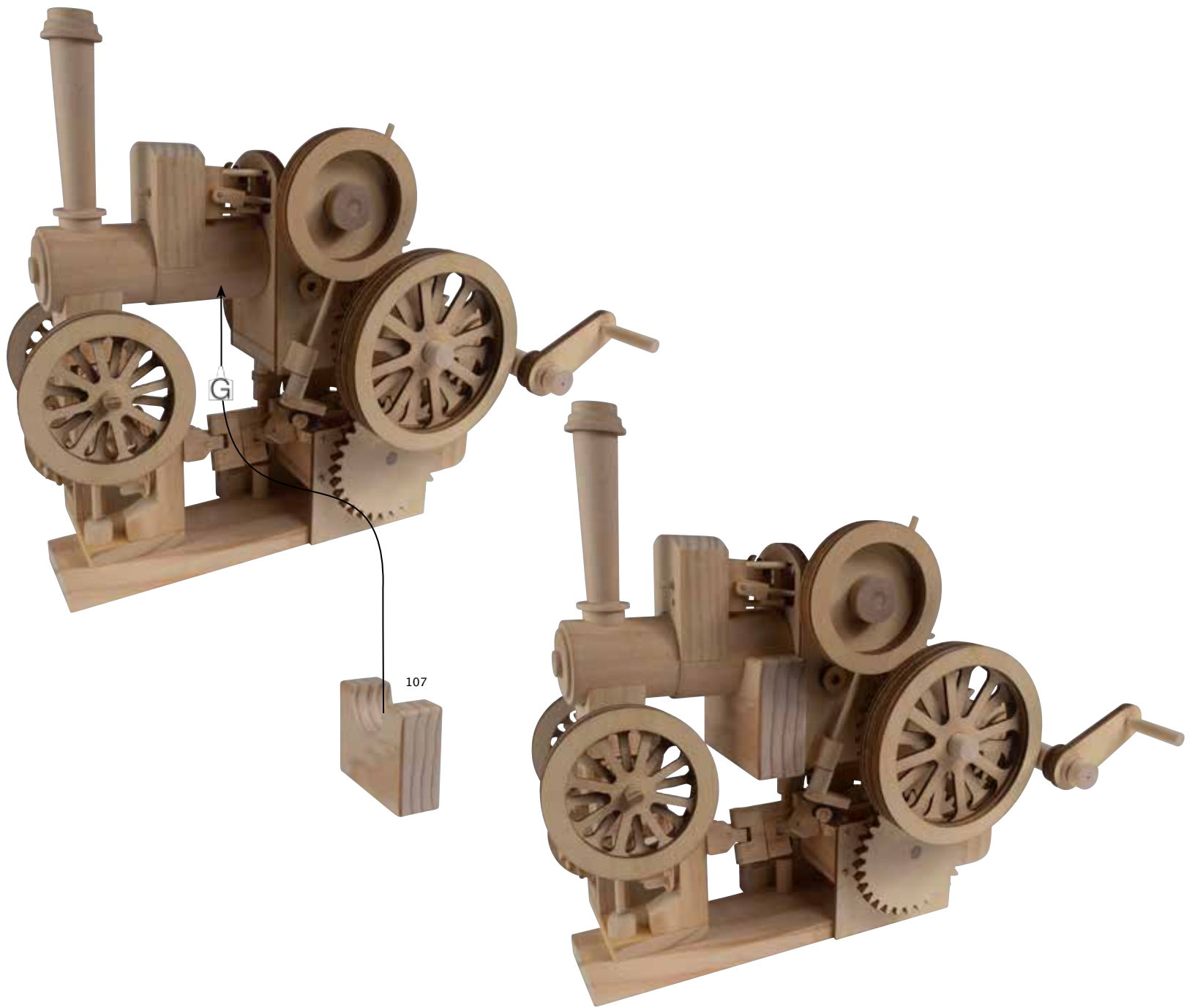
57

57a



57b



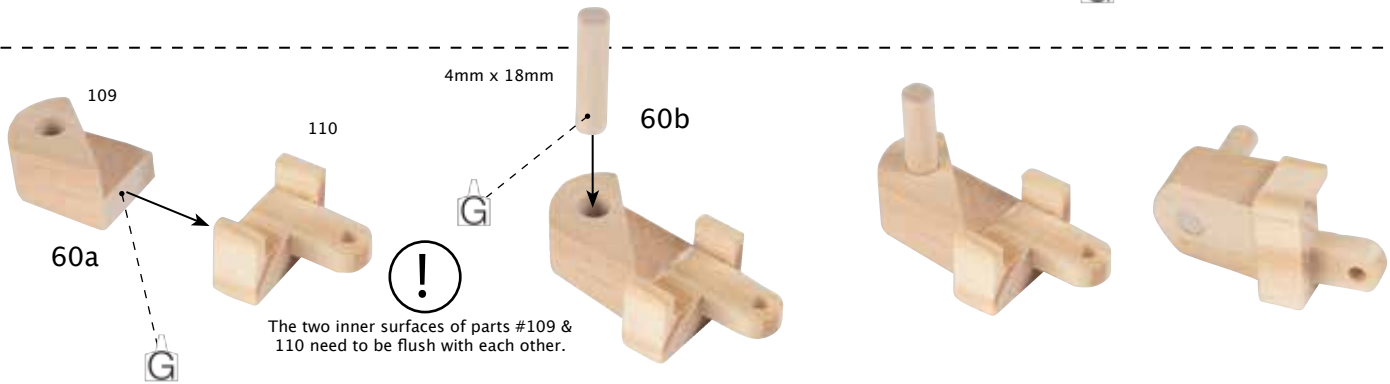




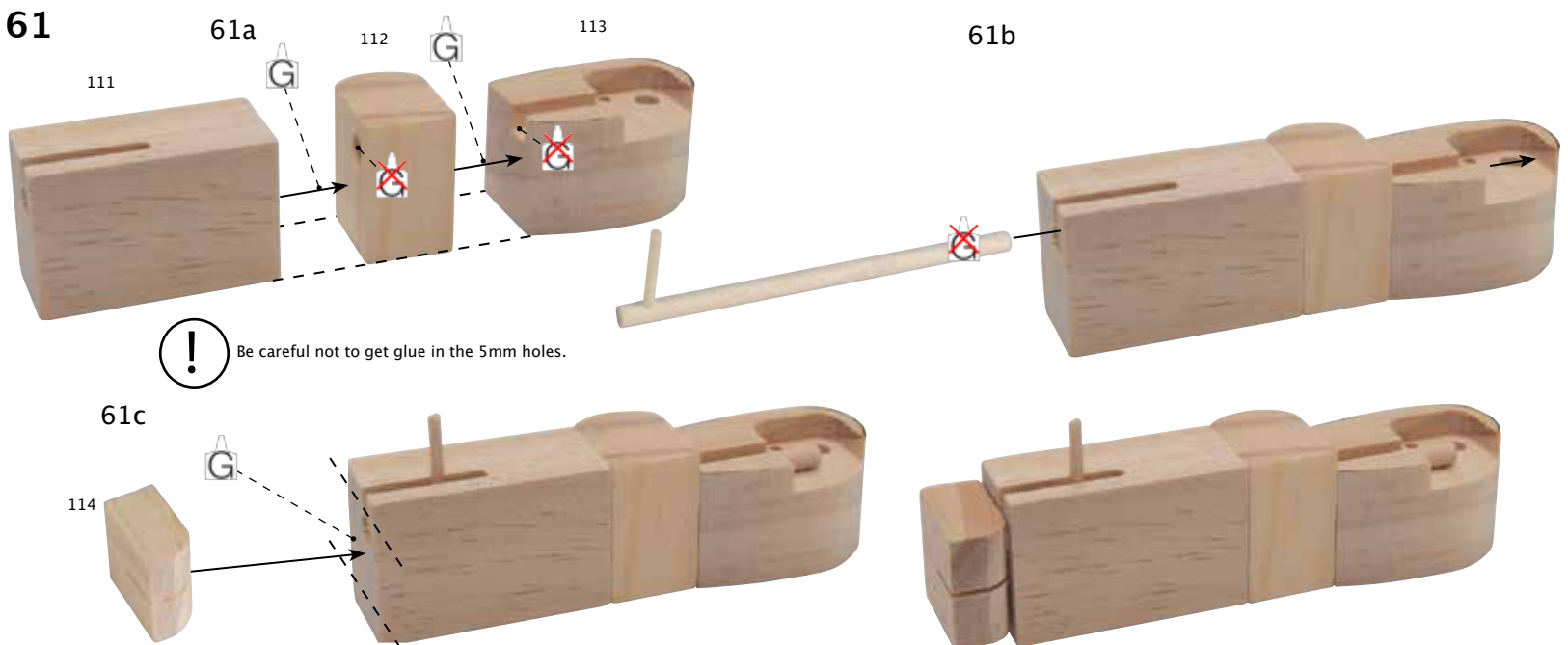
59



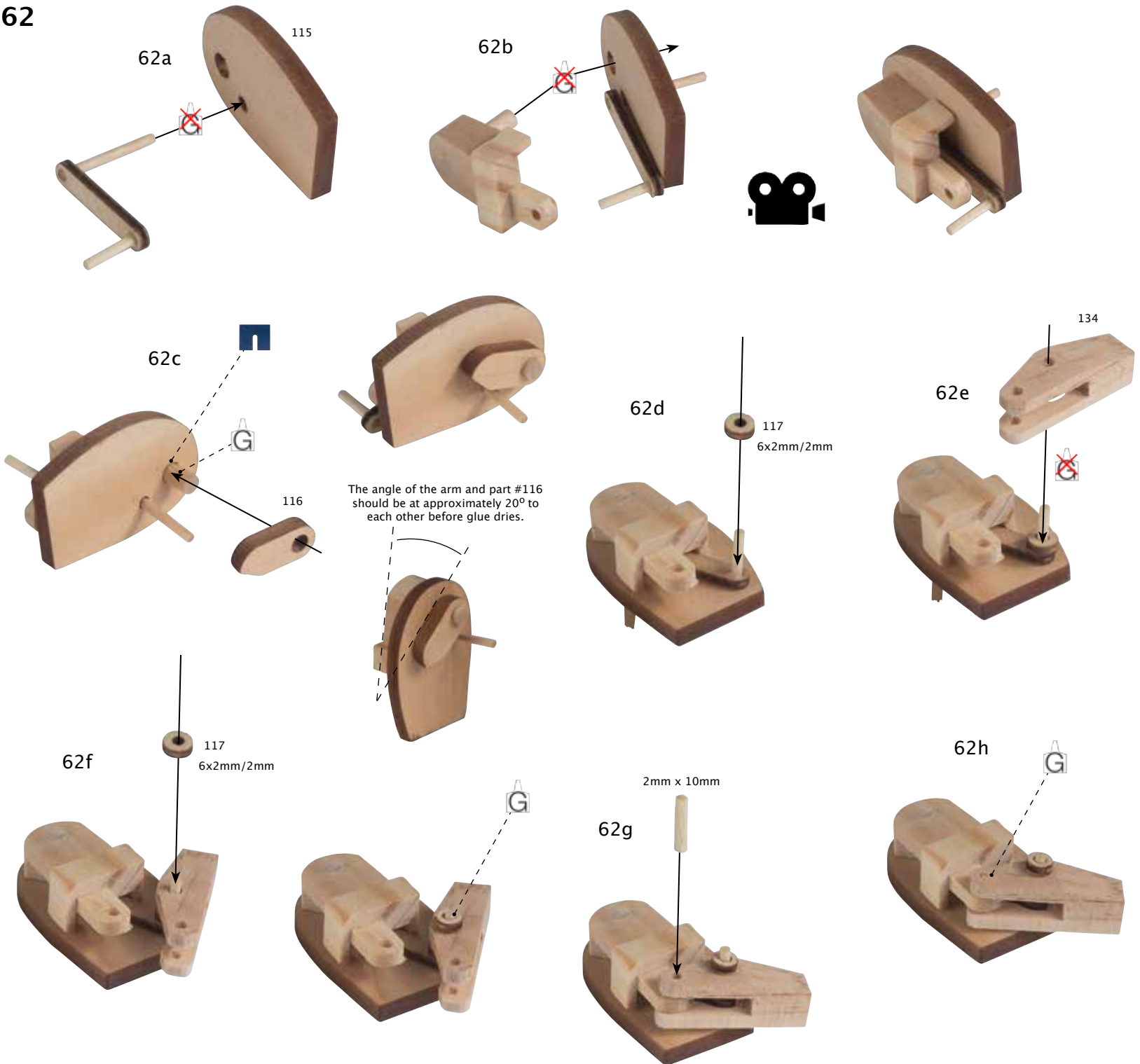
60



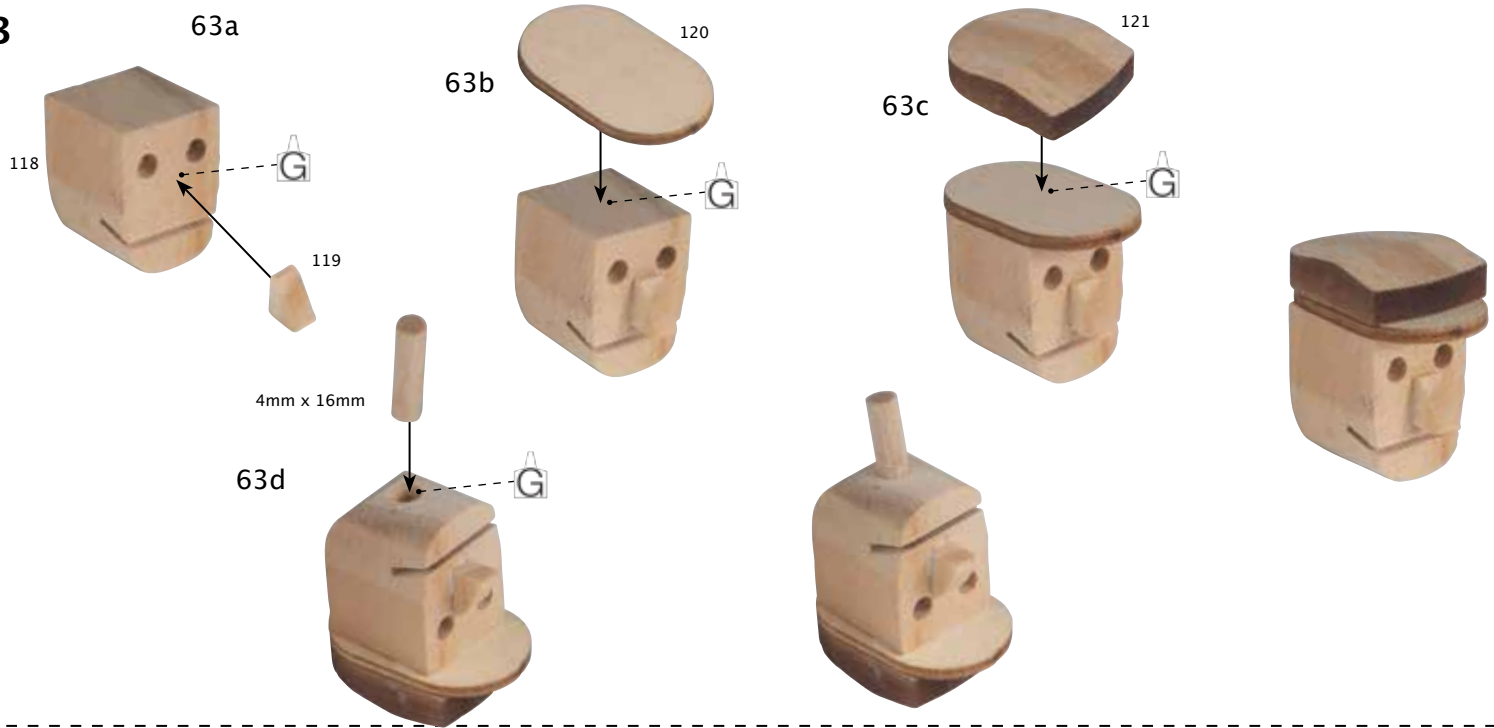
61



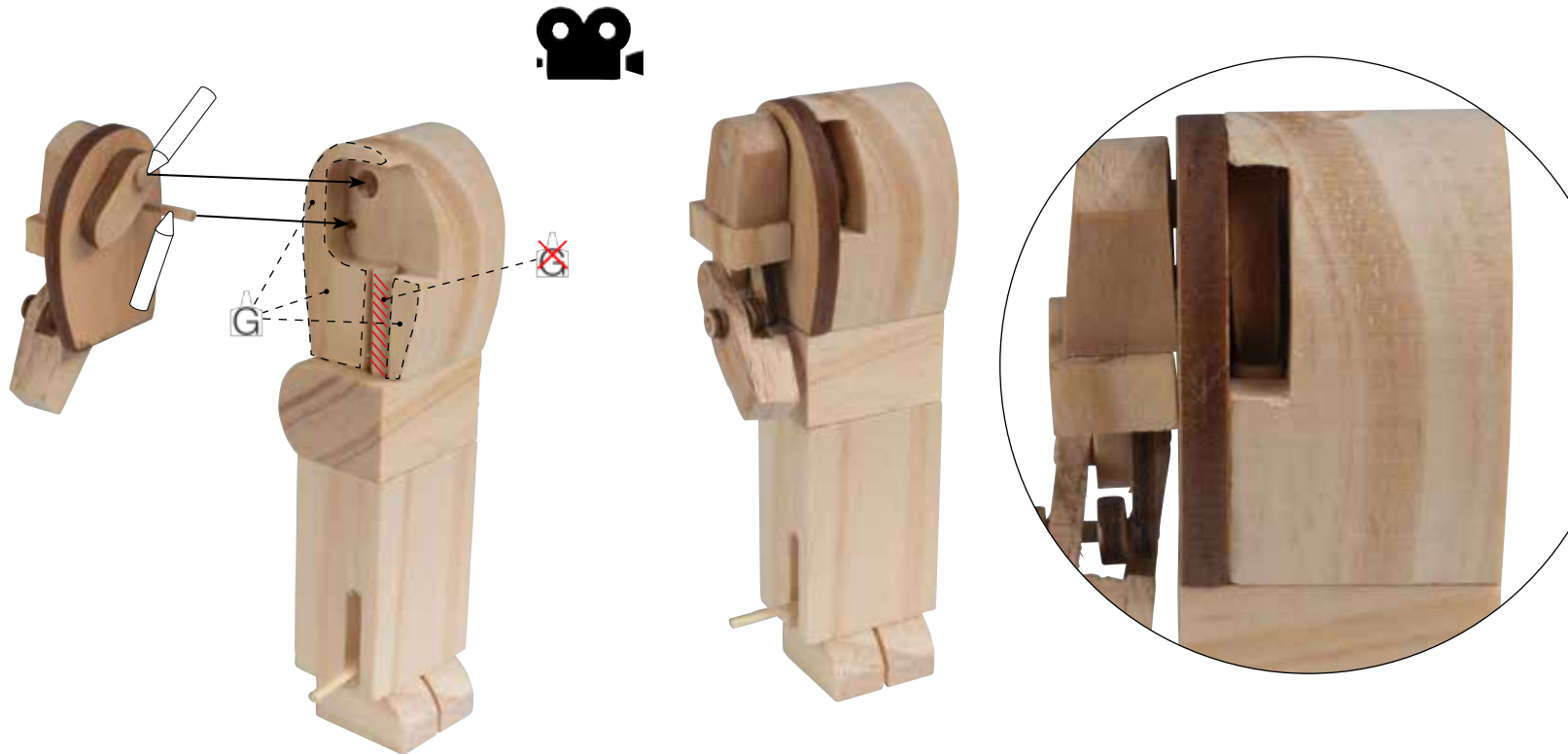
62



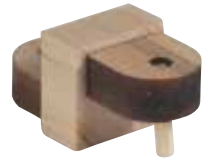
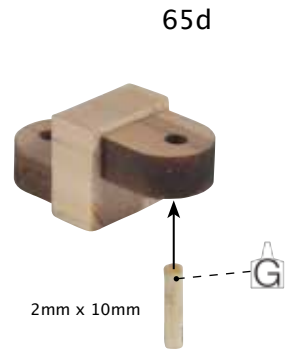
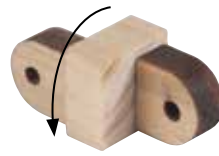
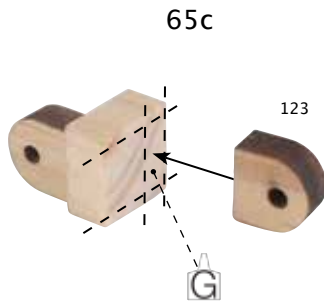
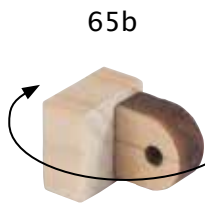
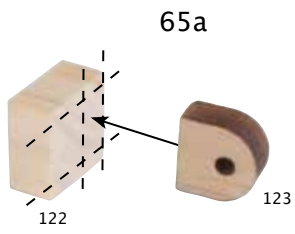
63



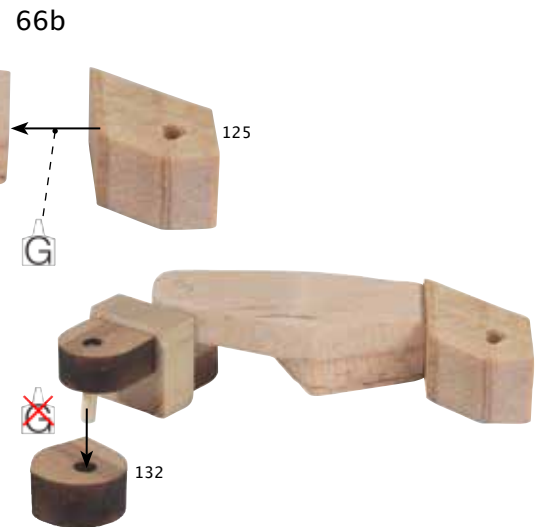
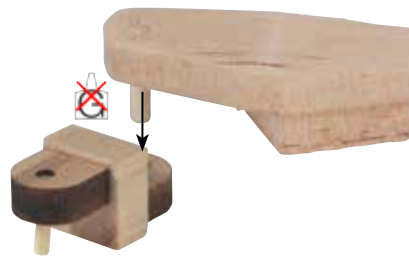
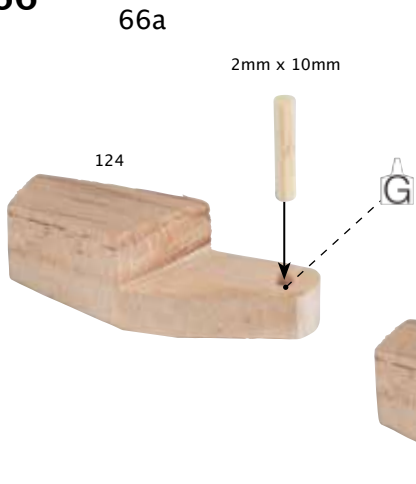
64



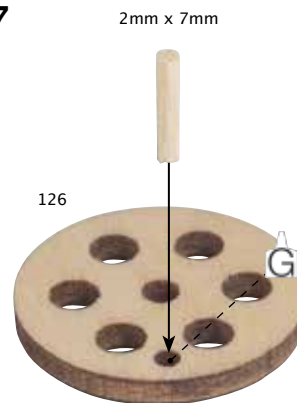
65



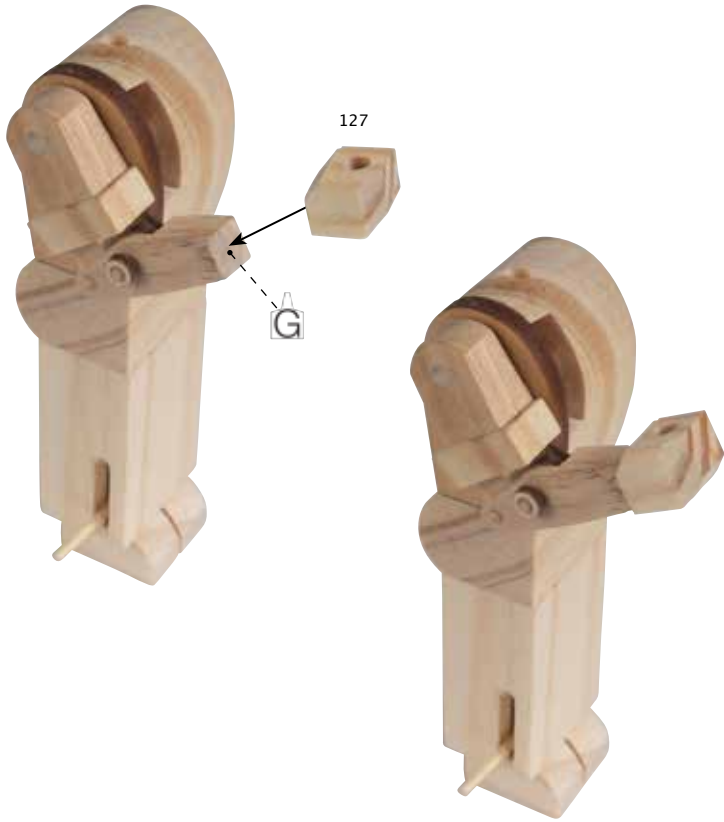
66



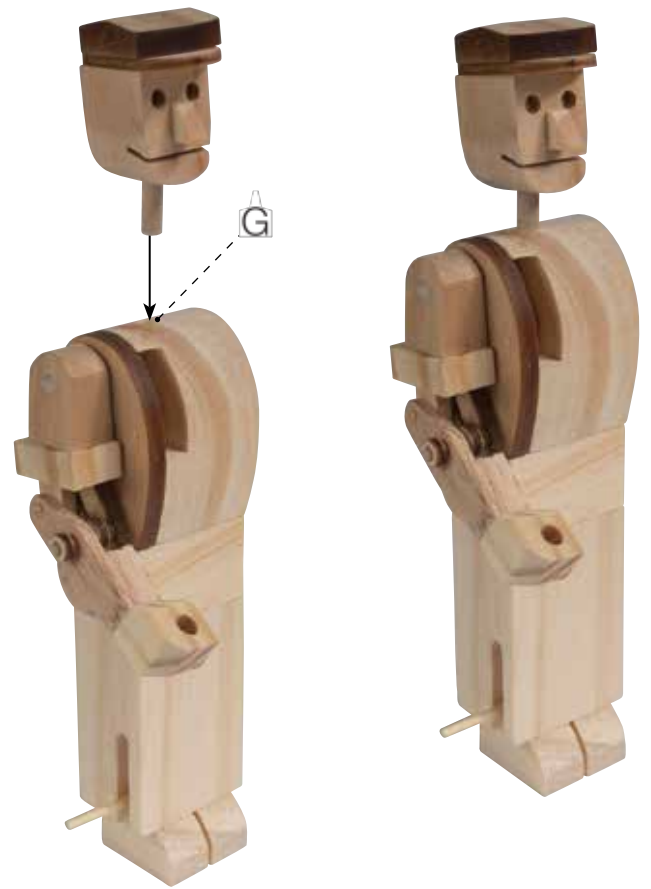
67



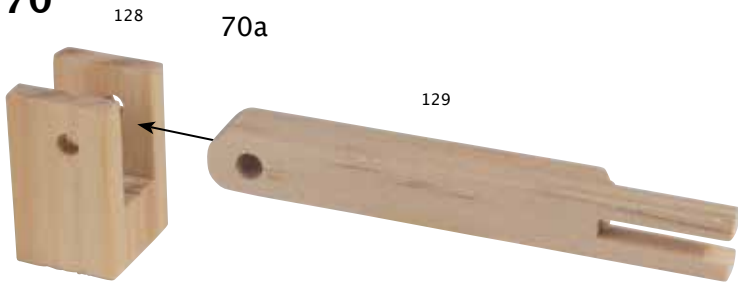
68



69

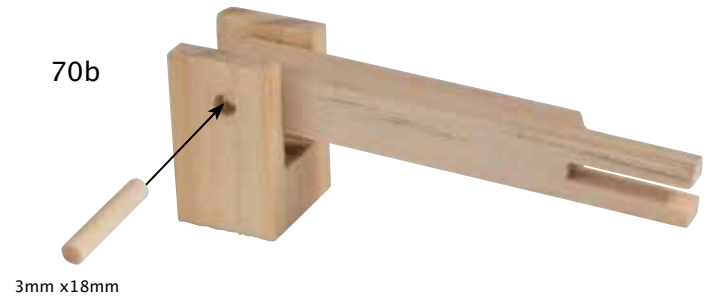


70



The hole in the side of part #128 is offset and should have the bias towards the part #129.

70b

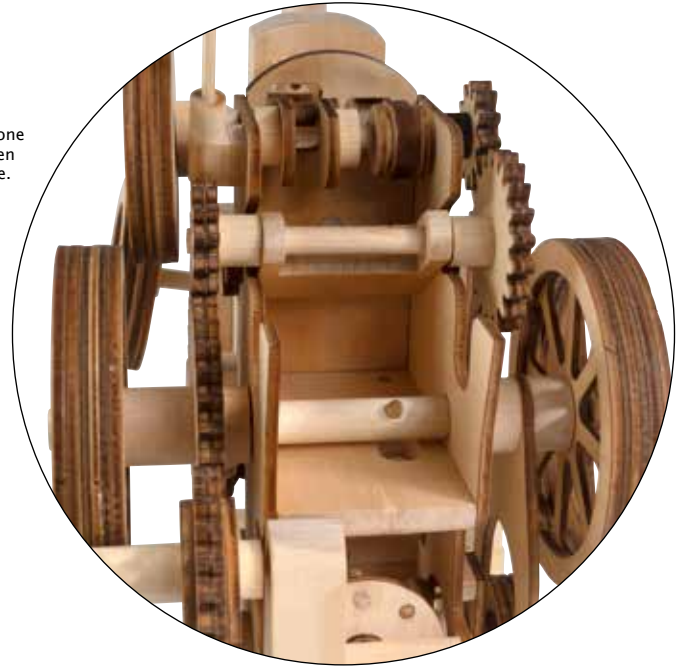
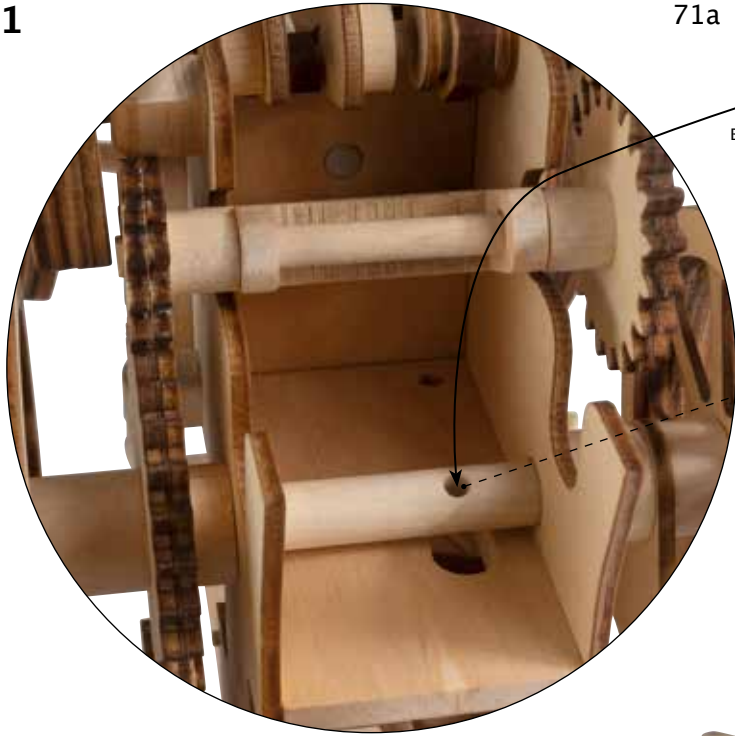


71

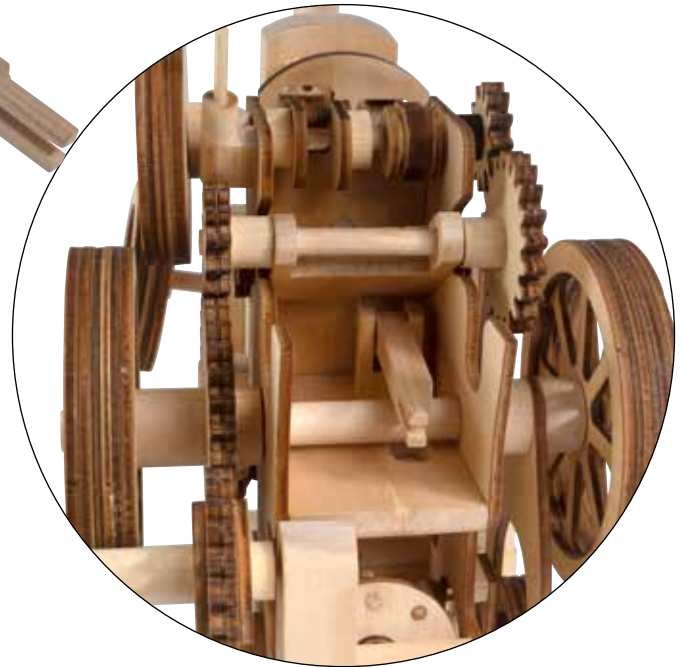
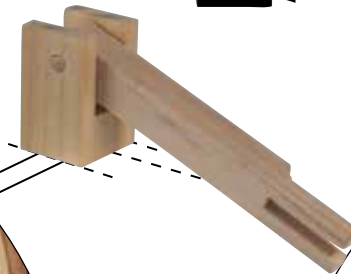
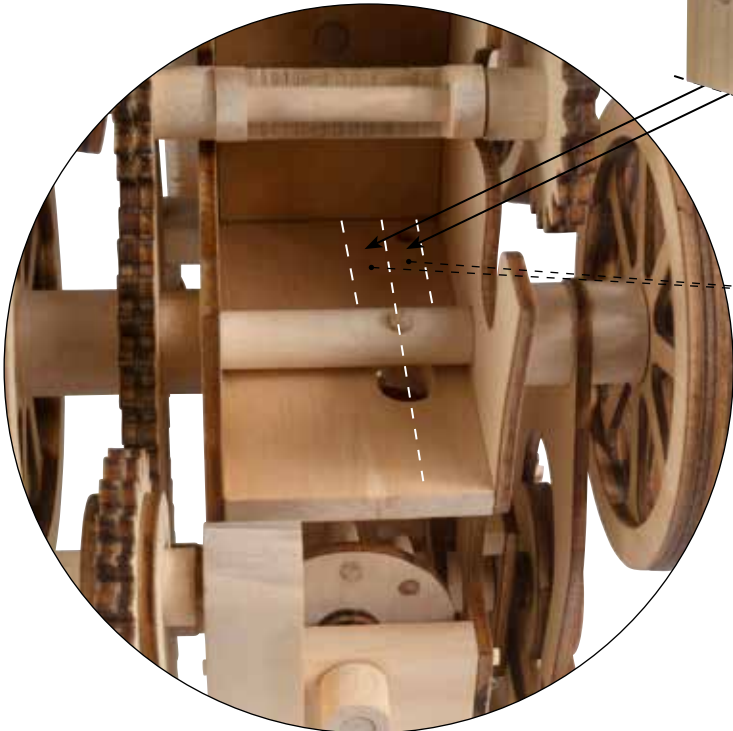
71a

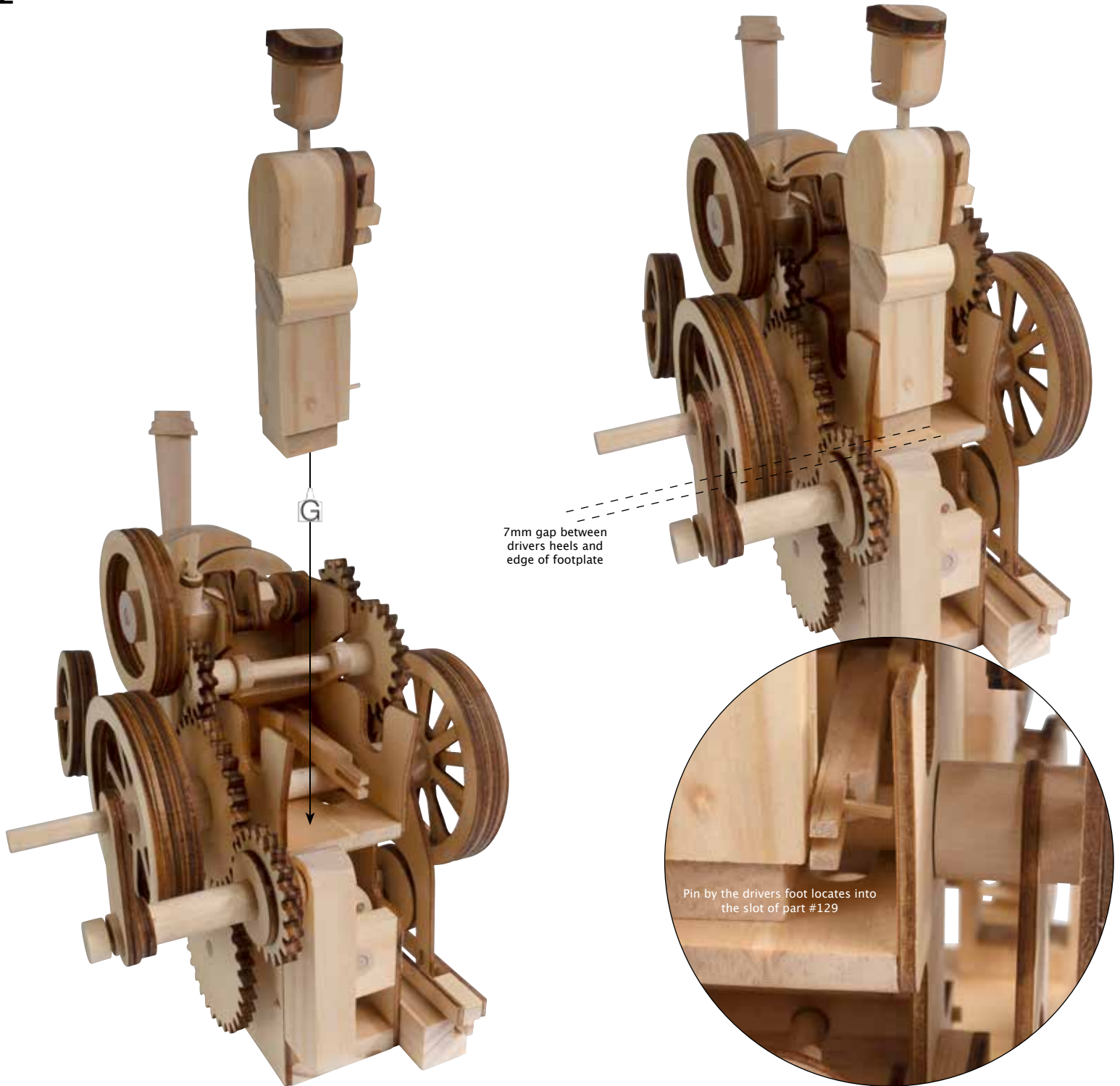
4mm x 11mm

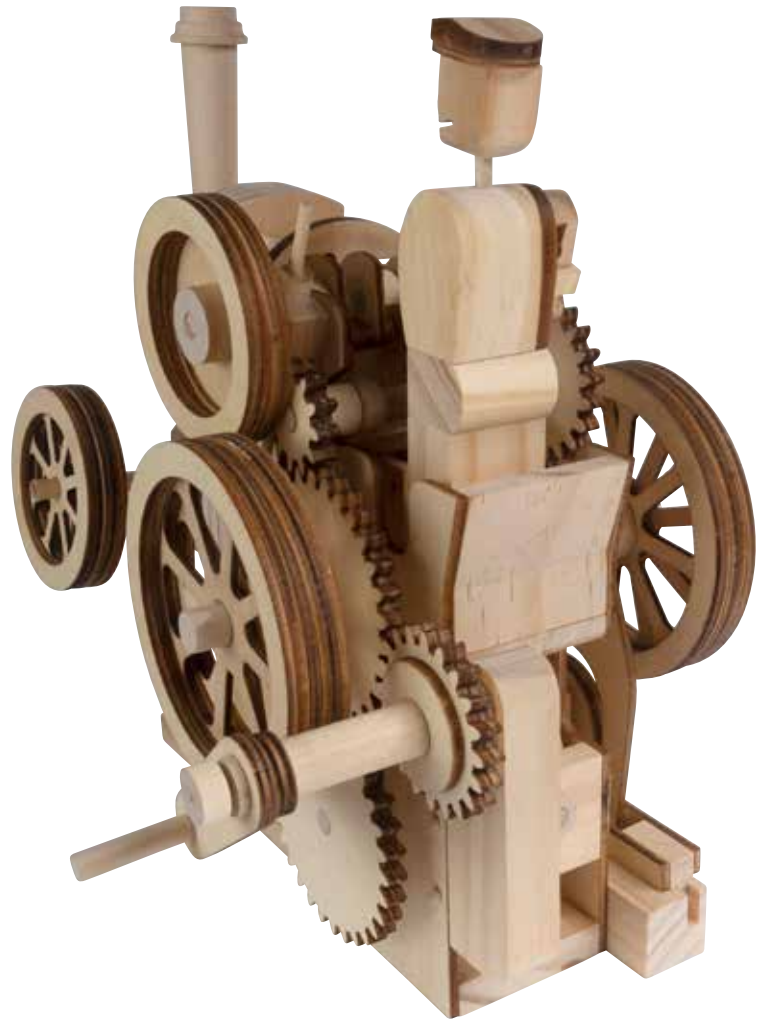
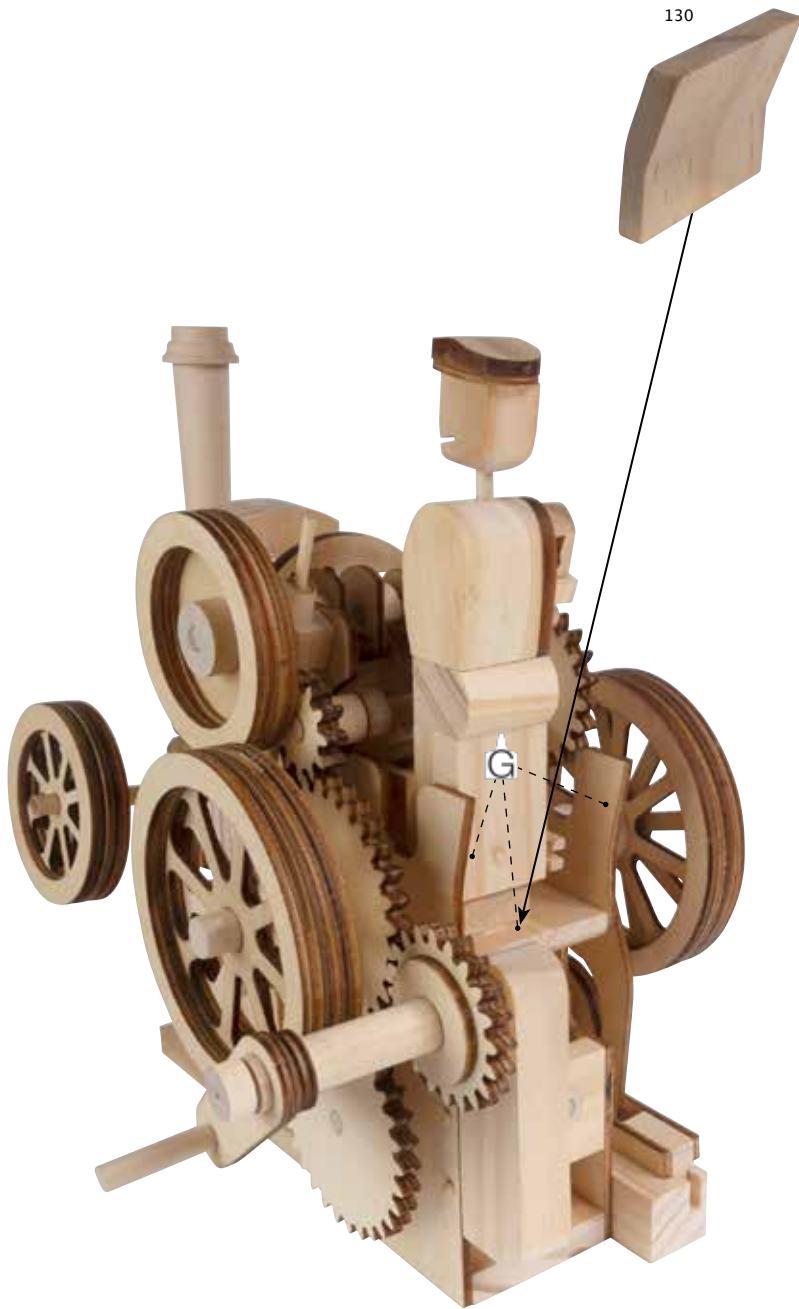
Before fitting round off one end with sandpaper then push fully into the hole.



71b

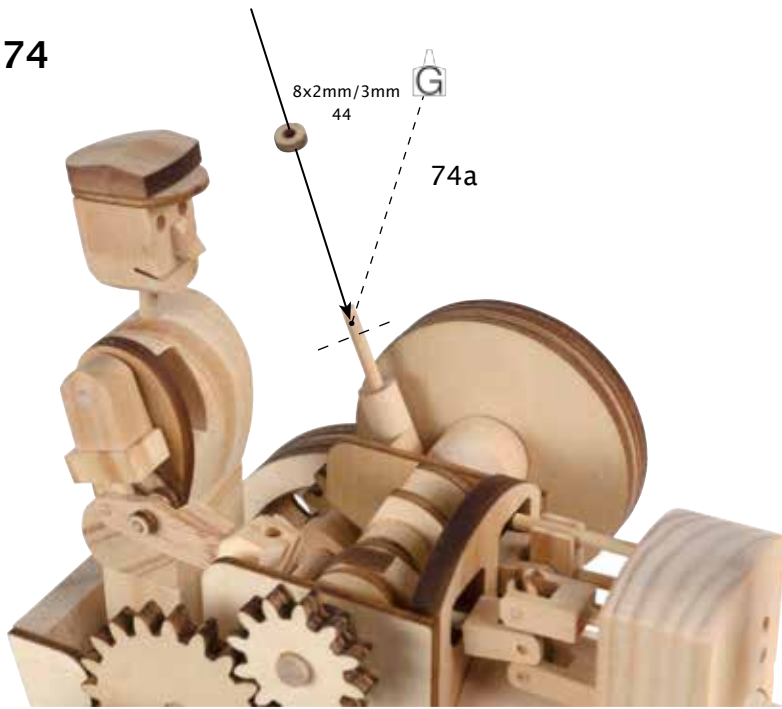




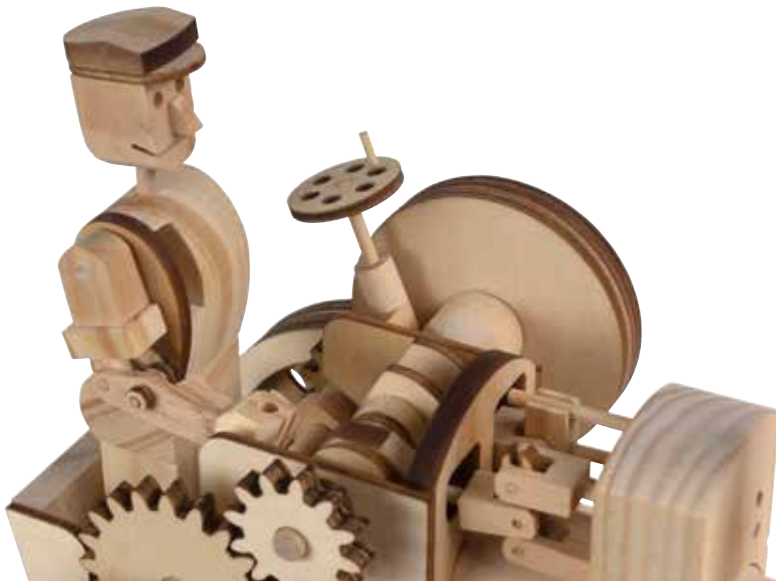
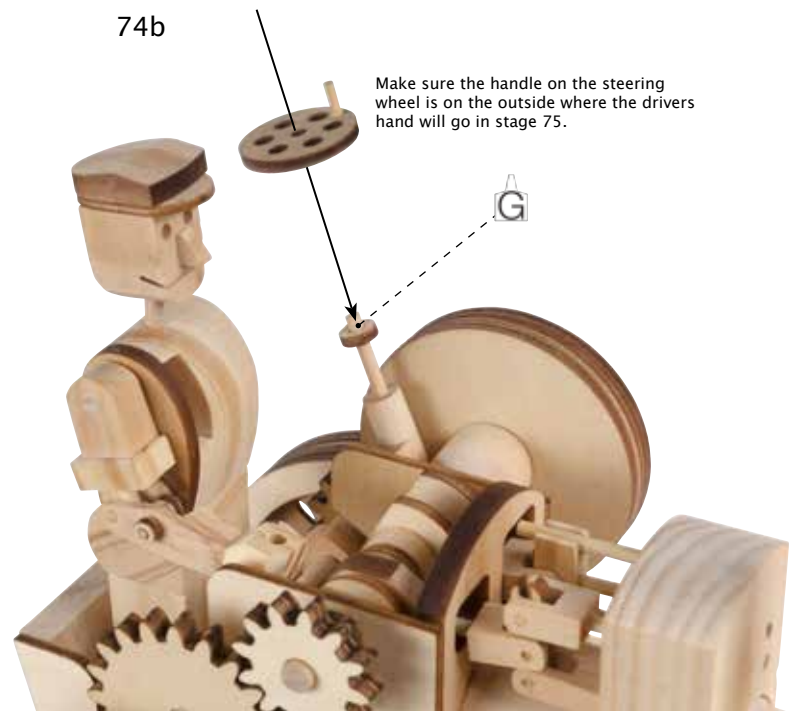




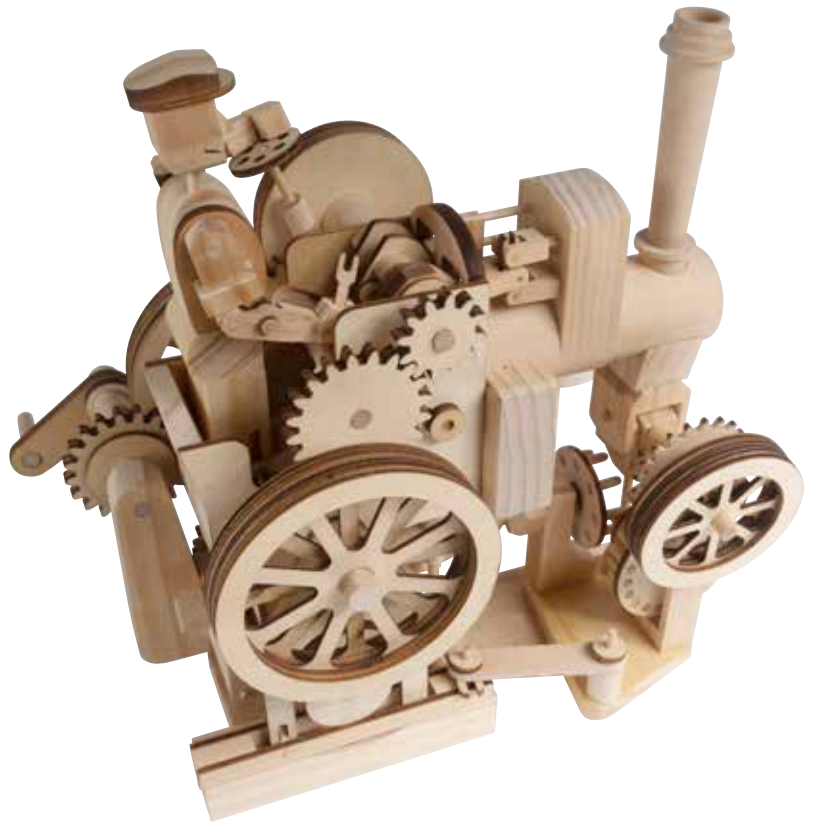
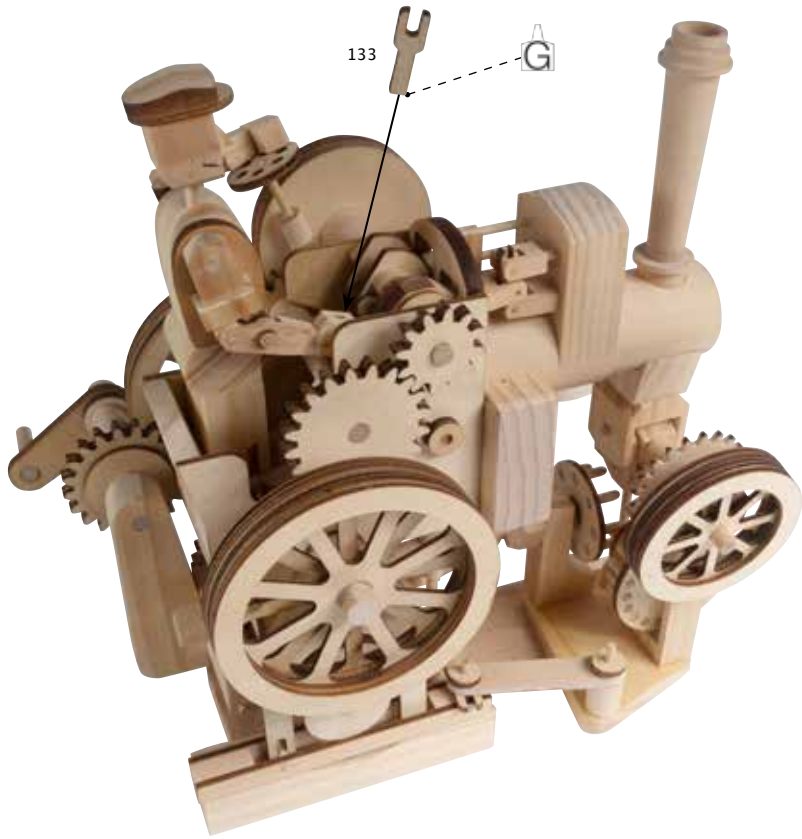
74



74b













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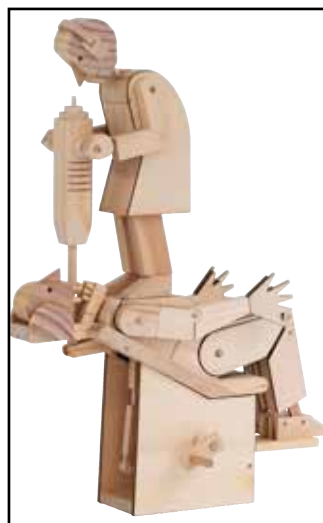
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