King Mould 17028 road rescue

Inhoud

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1 Modification rear wheel suspension

1.1 General

1.1.1 Goal

- Reduce chance for rear wheels coming loose (drive shaft coming loose from differential)

1.1.2 Pros

- Uses two parts from the rear fender suspension that can be missed (manual page 248, image number 715, right grey part 2x)
- Double bearing drive shafts (less force at the point where the end of the drive shaft is inserted into the differential gear)
- Less chance of the drive shaft becoming detached from the differential
- Suitable for retrofitting

1.1.3 Cons

- Drive shafts glued in place (the differential assembly can no longer be taken apart)
- Uses two parts from the rear fender that can't be missed (manual page 257, 2x part [13], need to be reordered, Lego design ID 41239, Lego element ID 4522935, Technic 13M Beam). Modification
- The gluing procedure must be carried out correctly in one go.

1.1.4 Glue

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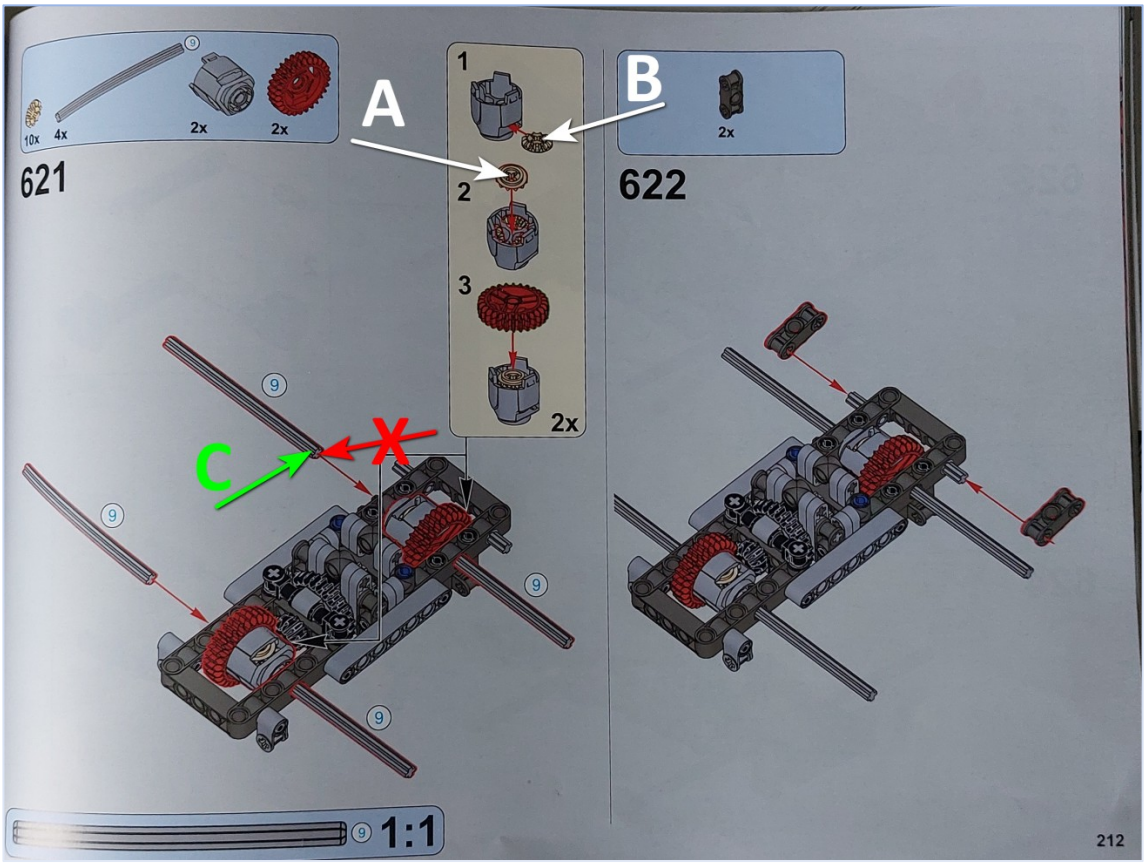
1.2 Gluing

1.2.1 General

- Several tests with ABS Lego parts where performed with different glues of which Bison Kombi Plastic performed best.
- Bison Kombi Plastic is a two-component adhesive. When mixing the adhesive, use equal amounts of each component.
- Ensure that the parts to be glued are dry, clean and free of grease.
- Parts A, B and C (drive shaft) must be glued.
- Do not use too much glue.
- Make sure that the glue does not get on other parts.
- Do one axle at a time. This is because the glue dries quickly. Prepare new glue for each axle (= two drive shafts).

1.2.2 Procedure

1. Apply a small amount of glue in the hole of gear A and B (see also gluing details).
2. Assemble the differential.
3. Apply a little glue to the end of C. Make sure that the glue only gets into the groove/recess of part C.
4. Place the differential in the frame and push the drive shafts (A and B) into the differential.
5. For the first 15 minutes, turn the drive shaft and the gears in the differential regularly. This is to prevent other parts from getting stuck due to any adhesive residue. Make sure you do not apply excessive force to the drive shafts (in any direction).
6. Leave the whole assembly to dry at room temperature for 24 hours.



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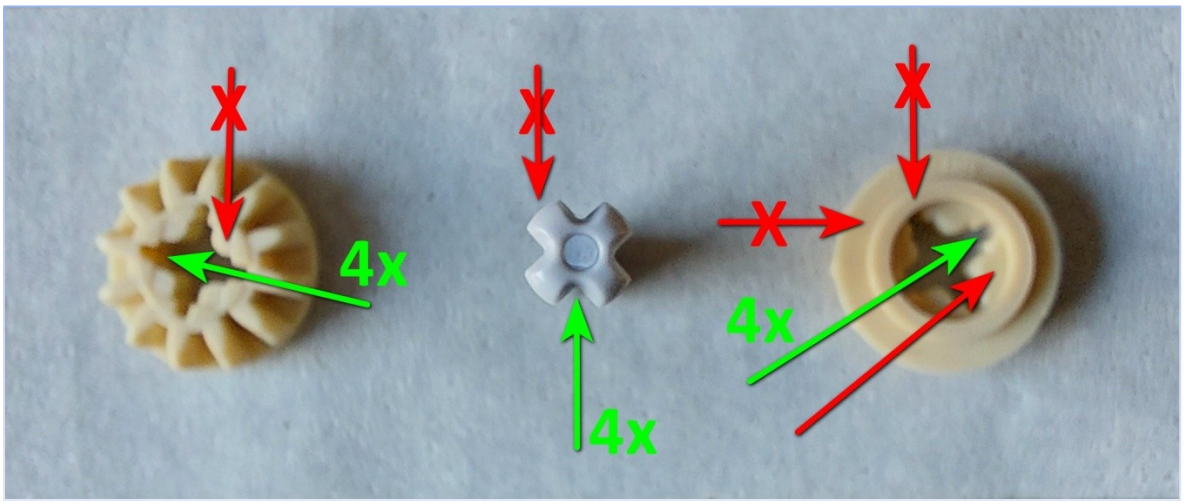
1.2.3 Gluing details

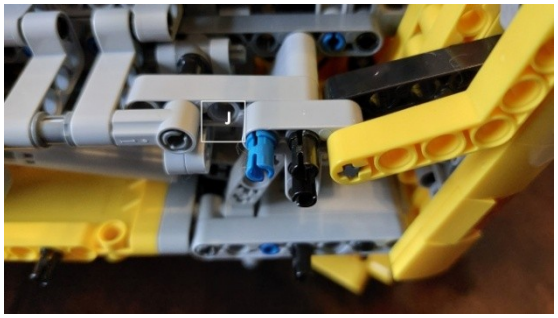
Red is no glue.

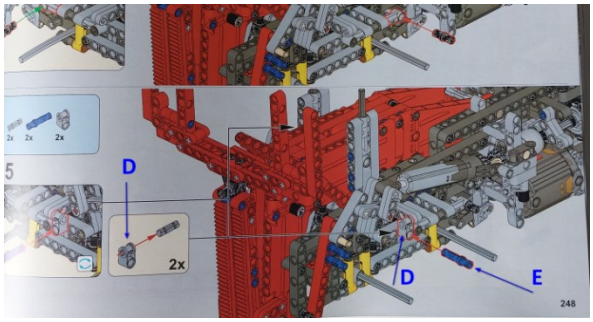


1.3 Modified support rear drive shafts

D=
borrowed
part from
rear fender
suspension

J=
former
location D





F=
blue pin

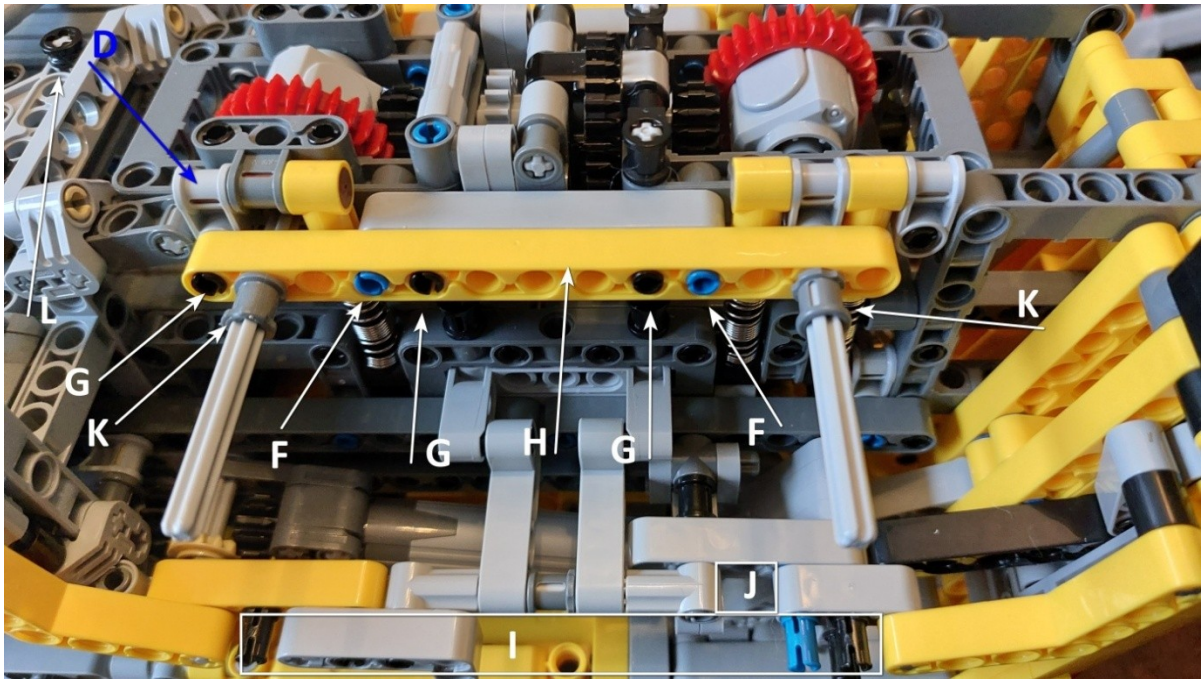
G=
black pin

H=
borrowed
part from
fender

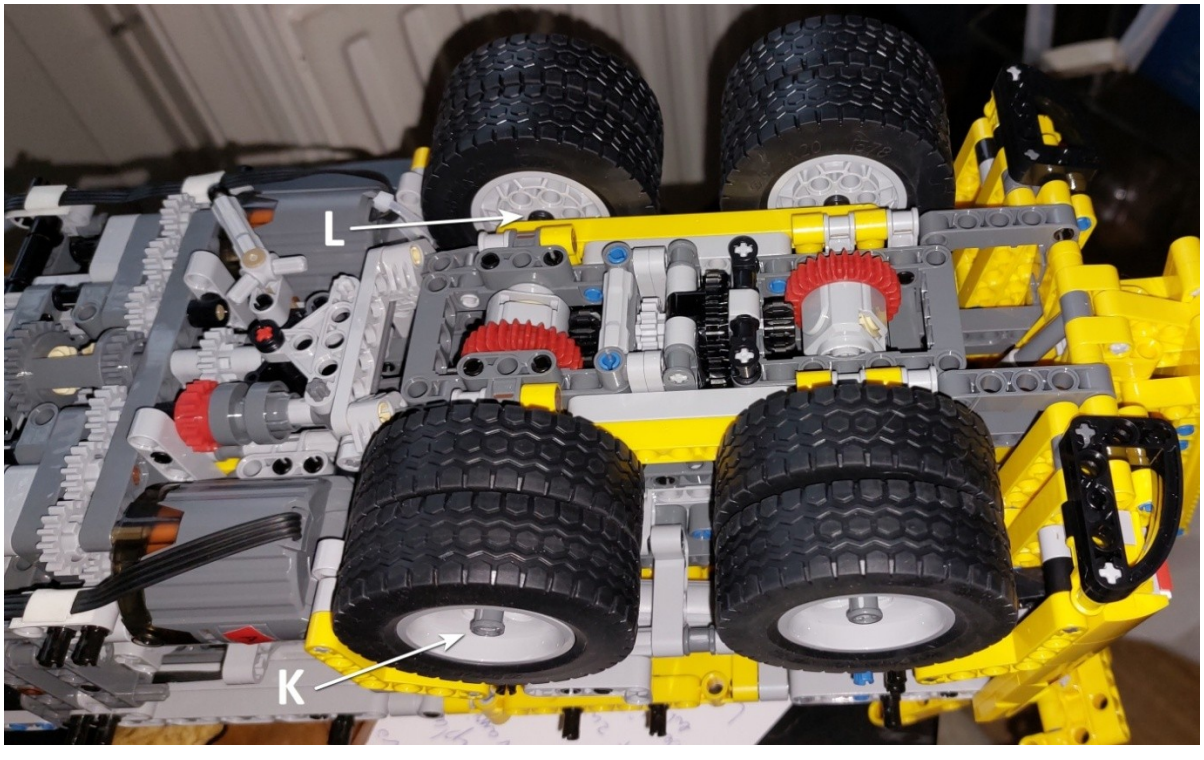
I=
former
location H

J=
former
location D

If possible use L instead of K



End result



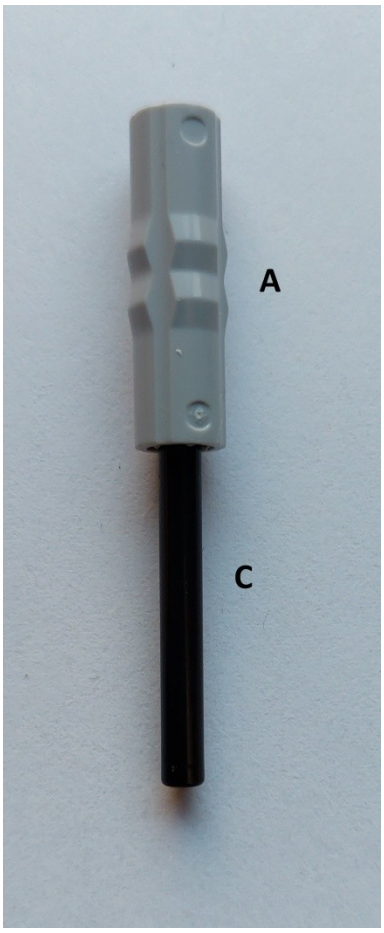
2 Modification drive selector

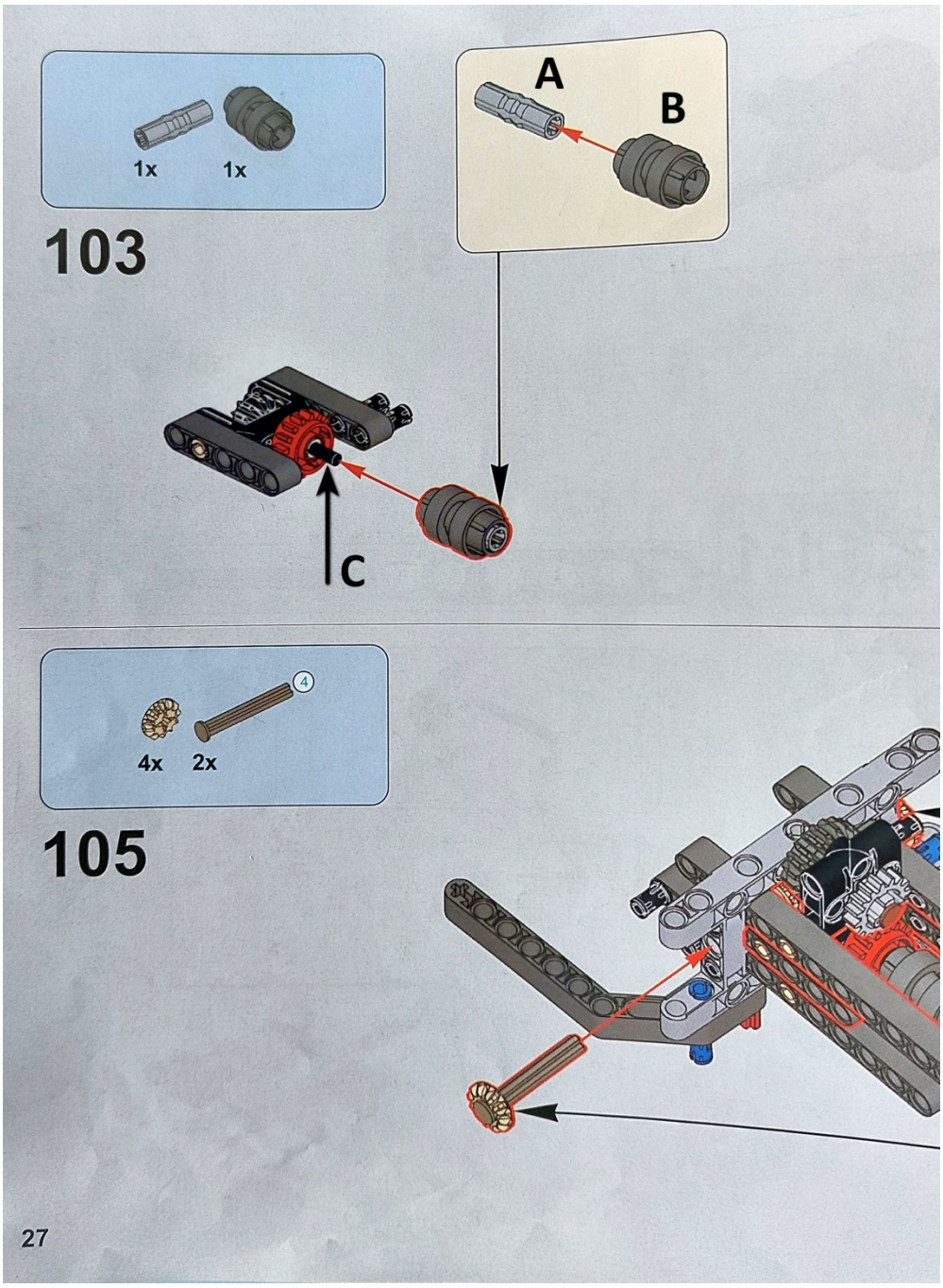
The following is applicable to the inner part (A) of the coupling sleeve (B)

The black axle (C) must be able to run freely in the inner part (A) of the coupling sleeve (B).

Please note: this only applies to one side of the inner part (A). This construction appears several times in the construction kit. However, this modification is only needed here.

If it is necessary to enlarge the hole, do so using a Torx hand screwdriver (size T15).





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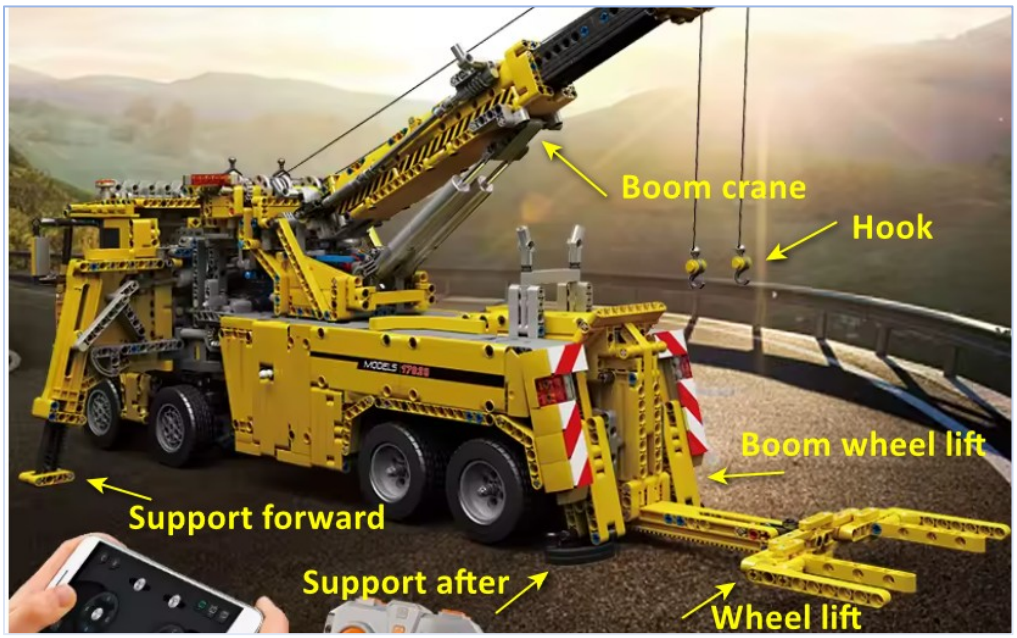
3 Operation

3.1 Synonyms

In the text and images to come ‘front and forward’ and ‘rear and after’ are synonyms of each other.

3.2 Identification



3.3 Functions

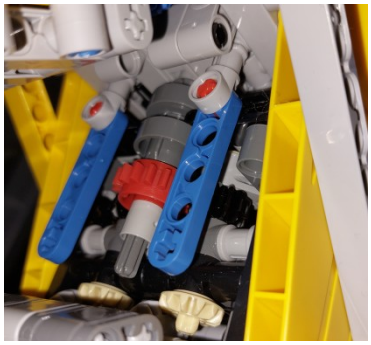
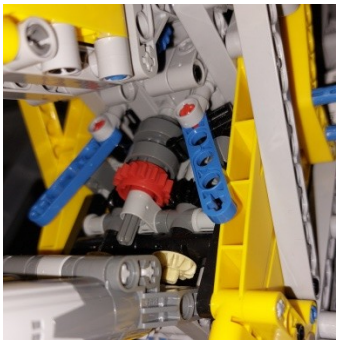
From the table below it can be derived that channel ‘B’ is used for rotational- and channel ‘C’ for vertical motion.

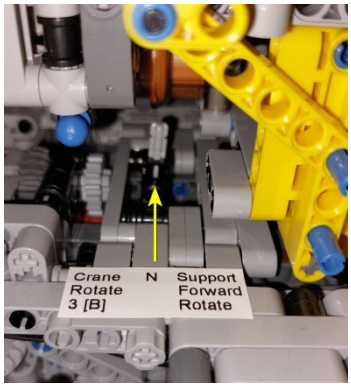
Function	Remote			
	Joy-stick	Button	Channel	Sticker
Drive Forward/backward	Left vertical		A	
All wheel drive/ front wheel drive			A	2
Crane rotate	Left horizontal		B	3
Support front rotate			B	3
Support front vertical	Right vertical		C	4
Support rear vertical			C	1
Wheel lift boom			C	4
Left/right (steering)	Right horizontal		D	
Wheel lift forks		Top left	E	
Crane hook vertical		Top right	F	5
Crane boom vertical				
Crane boom extend				

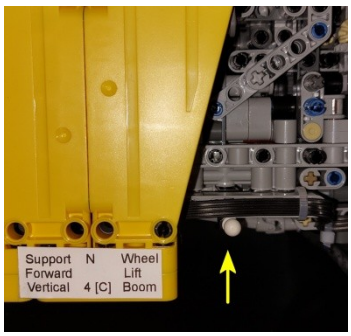
3.4 Stickers

The figures refers to the sticker numbers and the letters [x] to the servo channel. Note, ‘N’ refers to neutral.

<table>
<tr>
<td>Vertical motion

Boom crane
<u>or</u>
hook</td>
<td> 
</td>
<td> 
Hook</td>
<td> 
Boom crane</td>
</tr>
<tr>
<td>Rotate

Crane
<u>or</u>
forward
support</td>
<td> 
</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical motion

Selection between wheel lift <u>or</u> forward support</td>
<td> 
</td>
<td colspan="2"></td>
</tr>
<tr>
<td>Vertical motion rear support on/off

Wheel drive selection</td>
<td colspan="2"> 
</td>
<td></td>
</tr>
</table>

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3.5 Remote

Joy sticks		DRV = drive ROT = Rotate L/R = Left/right
Buttons crane and wheel lift