

SNCF Dijon Kirow crane

The large brick model

5,753 elements · 107 steps

Crane and base track: 4822 · Transport additions: 931



Digital model guide

This guide describes a digital model. It does not certify connections, strength or movements in a physical build. Model images are renders of the 3D scene, not photographs of an assembled prototype.

Created by Nicolas Pieper · NicolasPieper.com

[Open the 3D model and current files](#)

Independent, unofficial concept. LEGO, SNCF and Kirow remain trademarks of their respective owners; no endorsement is claimed.

Before you begin

Each image shows the model at the end of the step. Its table lists only the parts added during that step. Colors are also named in the table. Use the website's 3D model to inspect other viewpoints.

This guide describes a digital model. It does not certify connections, strength or movements in a physical build. Model images are renders of the 3D scene, not photographs of an assembled prototype.

Digital study based on public photographs. Approximate 1:20 scale based on an 88-stud chassis. Parts retain their real dimensions; connections, slides, actuators, cable and stability have not been tested with a physical prototype. The black window panels are opaque, matching the catalogue variant used. Markings are custom graphics. The display track and both accompanying wagons are included in the complete inventory. The visible cable is an unlisted simulation guide.

The display track is included in the inventory. The simulation cable and custom graphics do not represent additional part references.

Quantities are calculated from this version's pieces and include the track. Catalogue references do not guarantee stock, price or mechanical compatibility. This inventory is not a validated shopping list.

References and colors checked on 2026-09-12.

Independent, unofficial concept. LEGO, SNCF and Kirow remain trademarks of their respective owners; no endorsement is claimed.

Two modes, one inventory

Crane and base track : 4822 elements

Two wagons and track extensions : 931 elements

Complete inventory : 5753 elements

Working mode shows the crane on its base track, with lifting movements. Transport mode shows the folded boom resting on its support wagon and both accompanying wagons. Transport assembly starts at step 78.

The crane's counterweight moves onto the rear wagon in transport mode. Its pieces are counted only once, in the crane section. The wagon's load beds, frame and chocks are separate additional elements.

The dark cab panels use black 1 × 2 tiles (3069). These parts are opaque. Their appearance does not represent a transparent glazing color variant.

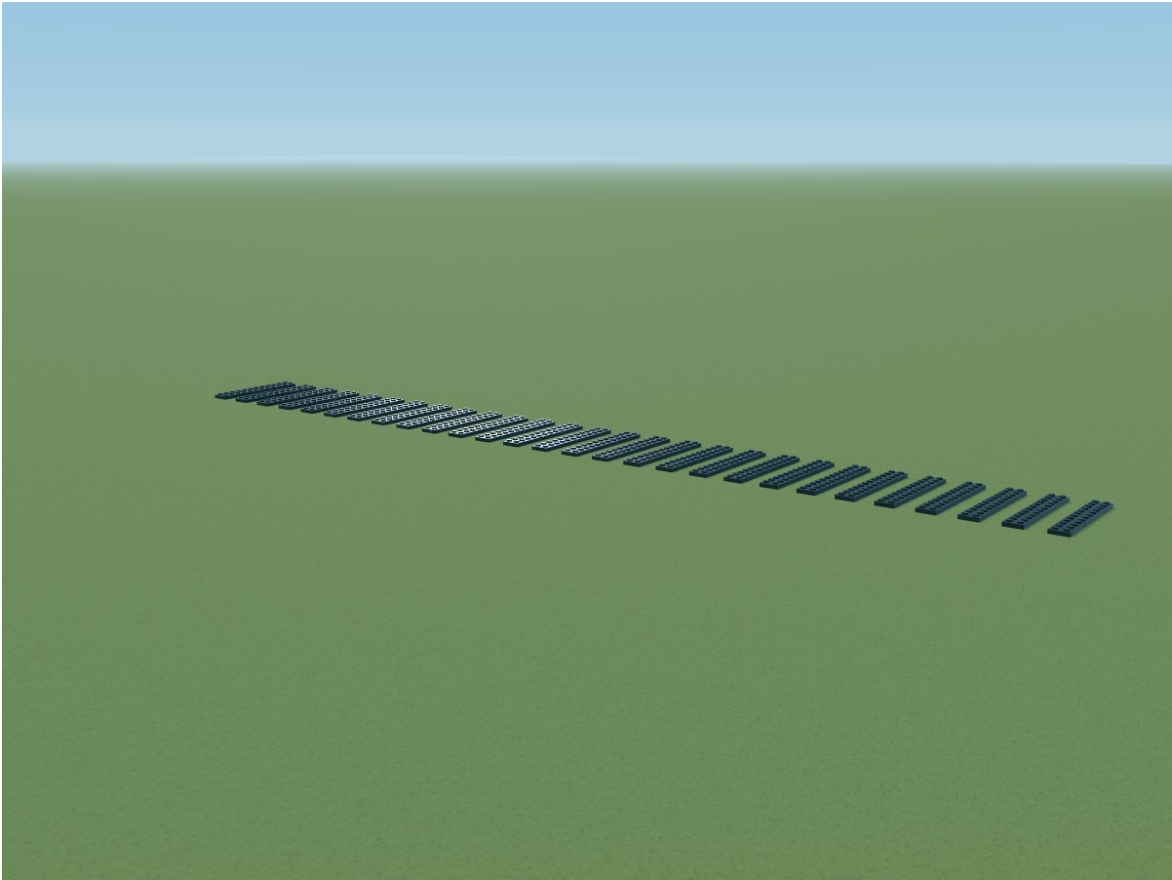
Quantities are calculated from this version's pieces and include the track. Catalogue references do not guarantee stock, price or mechanical compatibility. This inventory is not a validated shopping list.

[Open the 3D model and current files](#)

Step 01 / 107 · Track sleepers

Arrange black sleepers across 112 studs. This display track is built from plates.

84 elements · 84 cumulative elements



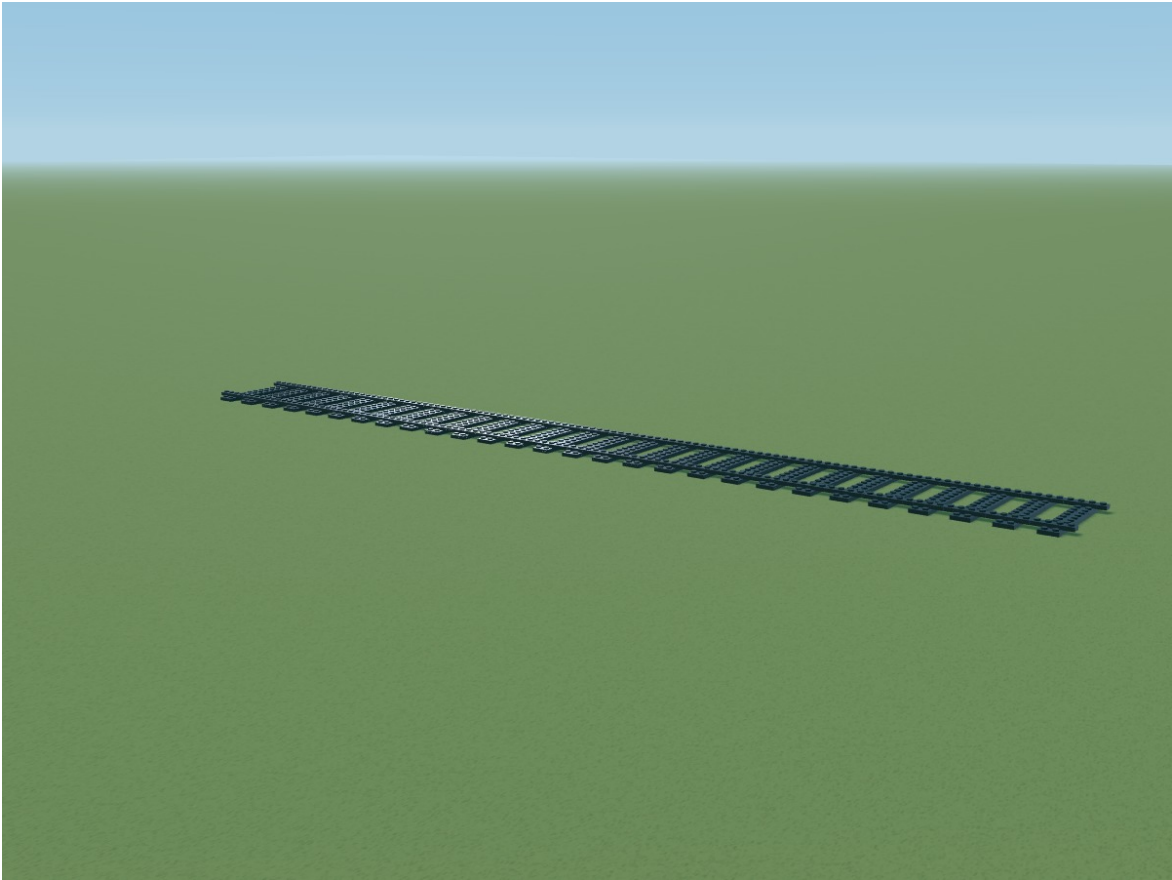
Added parts

Exact reference	Part and color · Step 1	Qty
3020	Plate 2 × 4 Black	84

Step 02 / 107 · Rail beds

Positions belong to the digital model. Connections still require a physical prototype.

56 elements · 140 cumulative elements



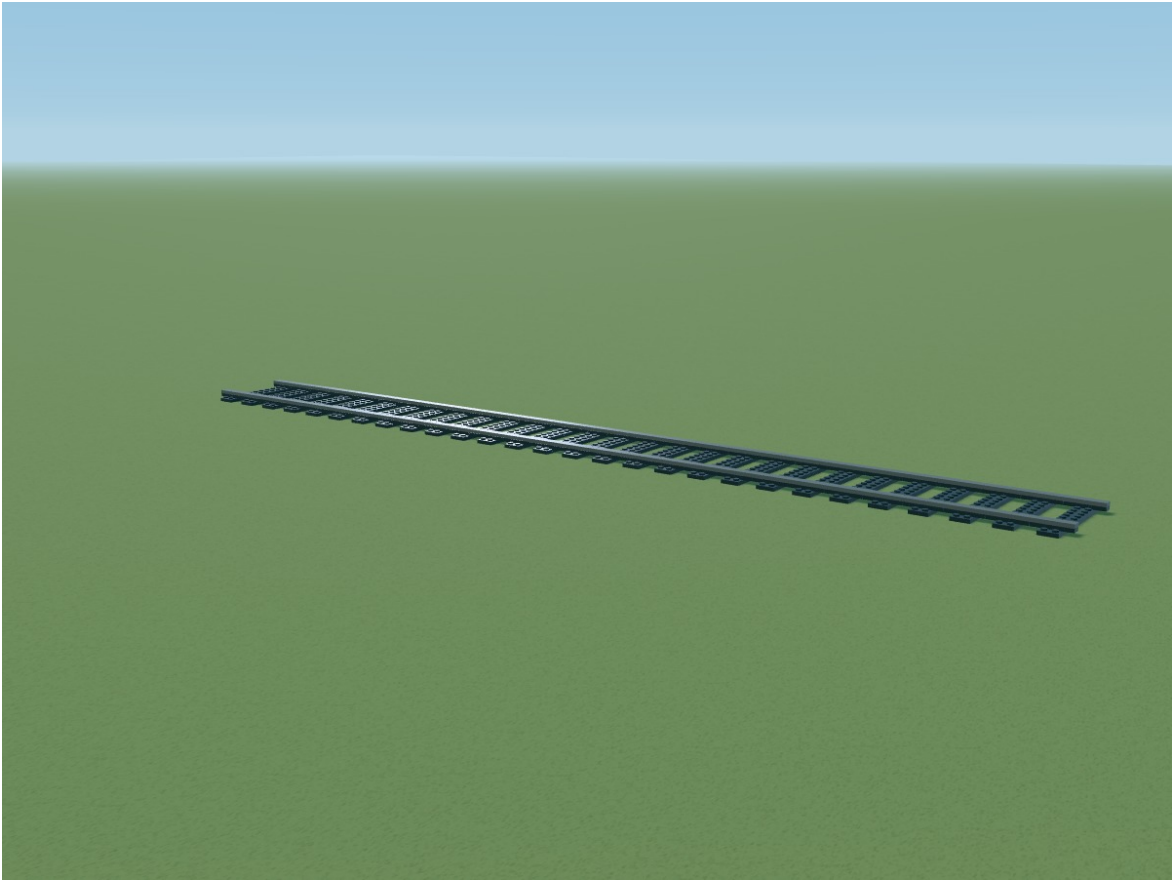
Added parts

Exact reference	Part and color · Step 2	Qty
3710	Plate 1 × 4 Black	56

Step 03 / 107 · Rail surfaces

Positions belong to the digital model. Connections still require a physical prototype.

56 elements · 196 cumulative elements



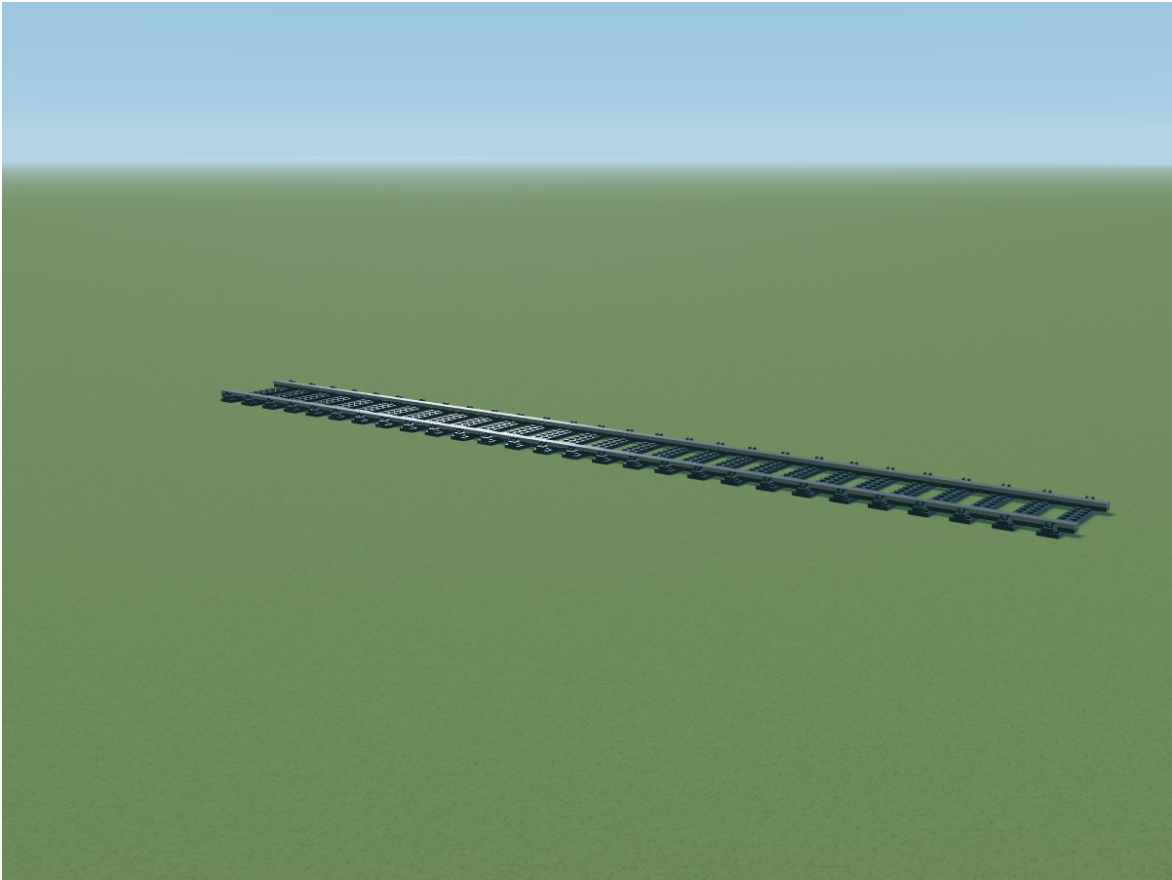
Added parts

Exact reference	Part and color · Step 3	Qty
2431	Tile 1 × 4 Dark Bluish Gray	56

Step 04 / 107 · Track fastenings

Positions belong to the digital model. Connections still require a physical prototype.

56 elements · 252 cumulative elements



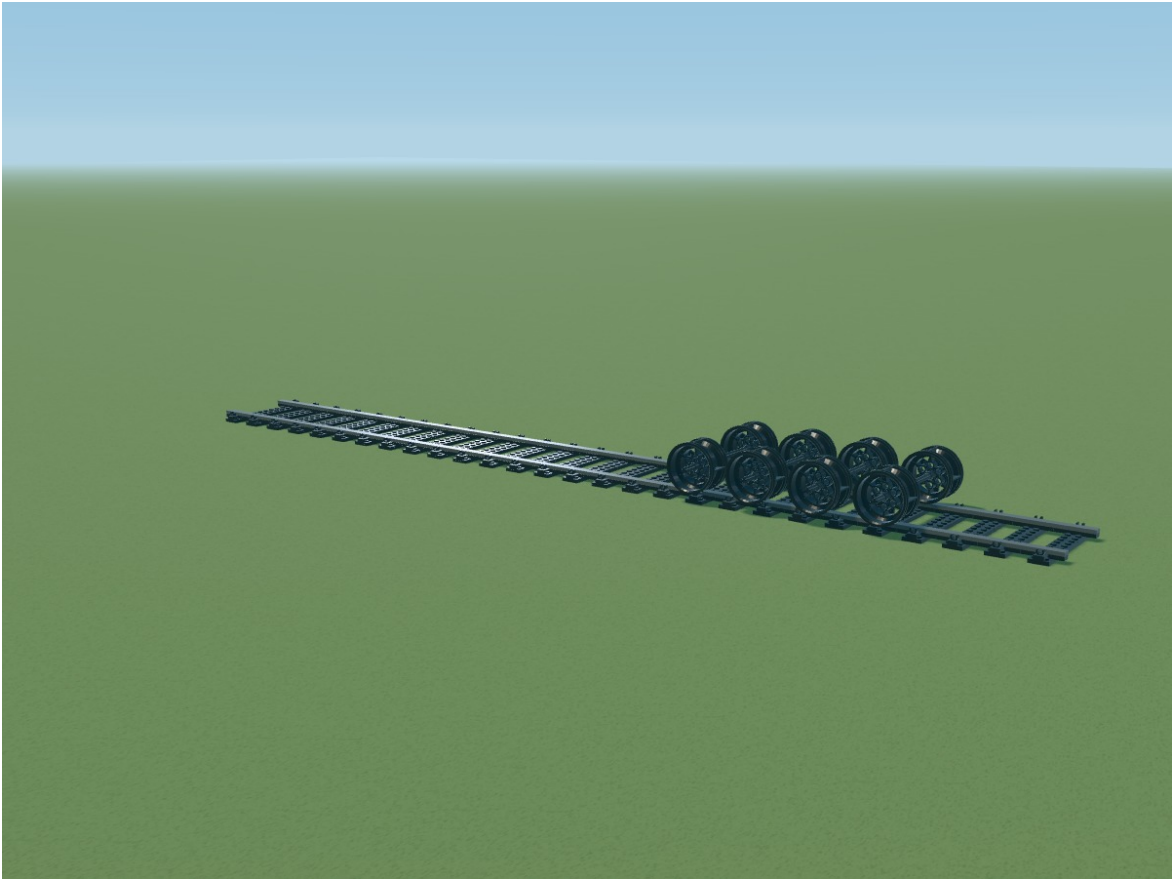
Added parts

Exact reference	Part and color · Step 4	Qty
15712	Modified tile 1 × 1 with open clip Black	56

Step 05 / 107 · Front axles

Four axles per bogie. Wheels 56908 and flanges 11213 are referenced parts; their combination remains experimental.

12 elements · 264 cumulative elements



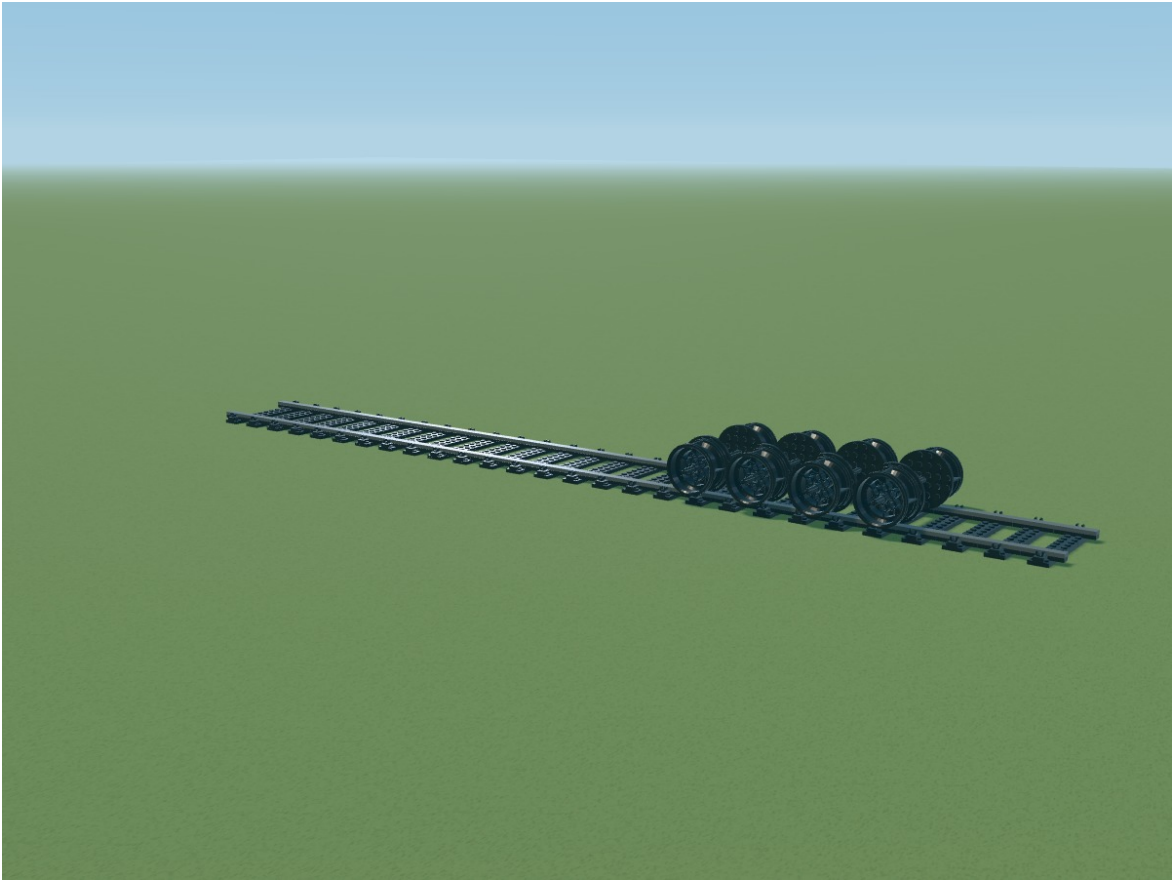
Added parts

Exact reference	Part and color · Step 5	Qty
50451	Technic axle 16L Black	4
56908	Technic wheel 43.2 mm × 26 mm Black	8

Step 06 / 107 · Front wheel flanges

Positions belong to the digital model. Connections still require a physical prototype.

8 elements · 272 cumulative elements



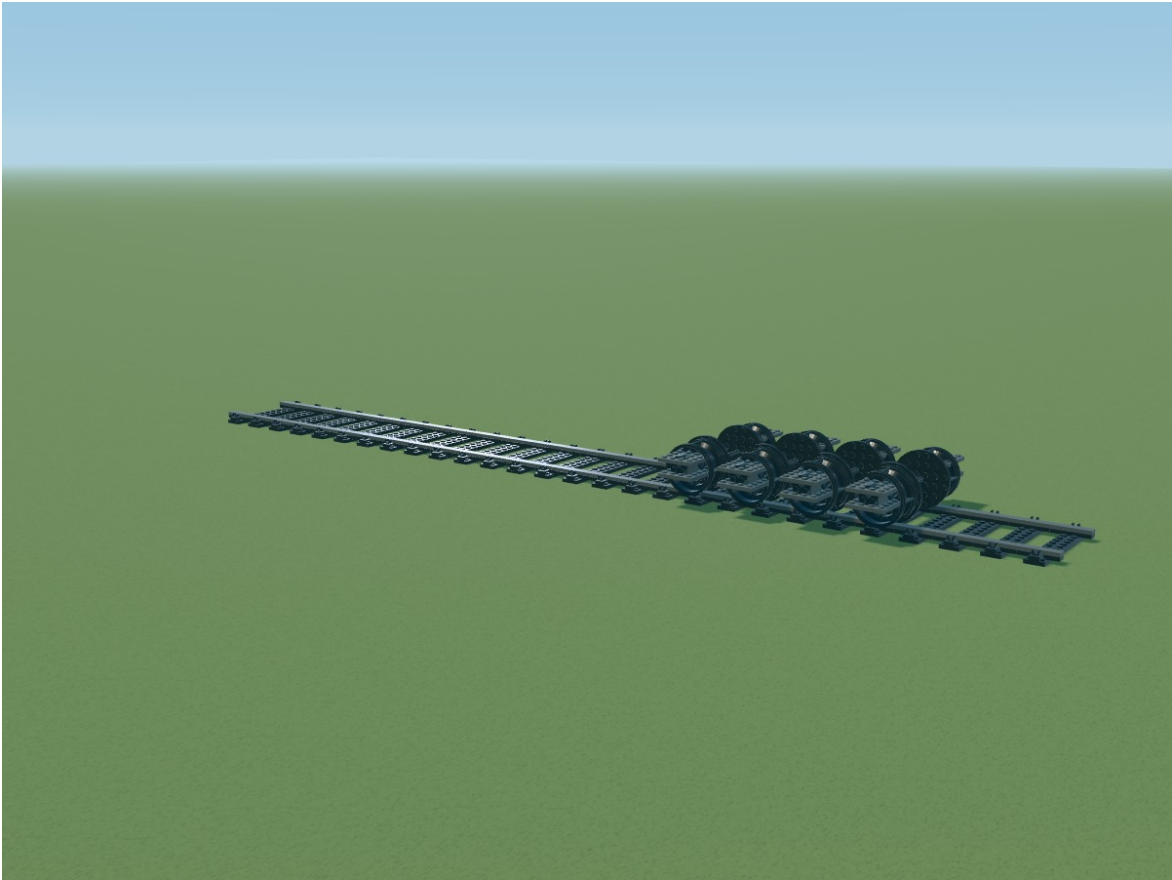
Added parts

Exact reference	Part and color · Step 6	Qty
11213	Round plate 6 × 6 with hole and snap stud Black	8

Step 07 / 107 · Front axle boxes

Positions belong to the digital model. Connections still require a physical prototype.

32 elements · 304 cumulative elements



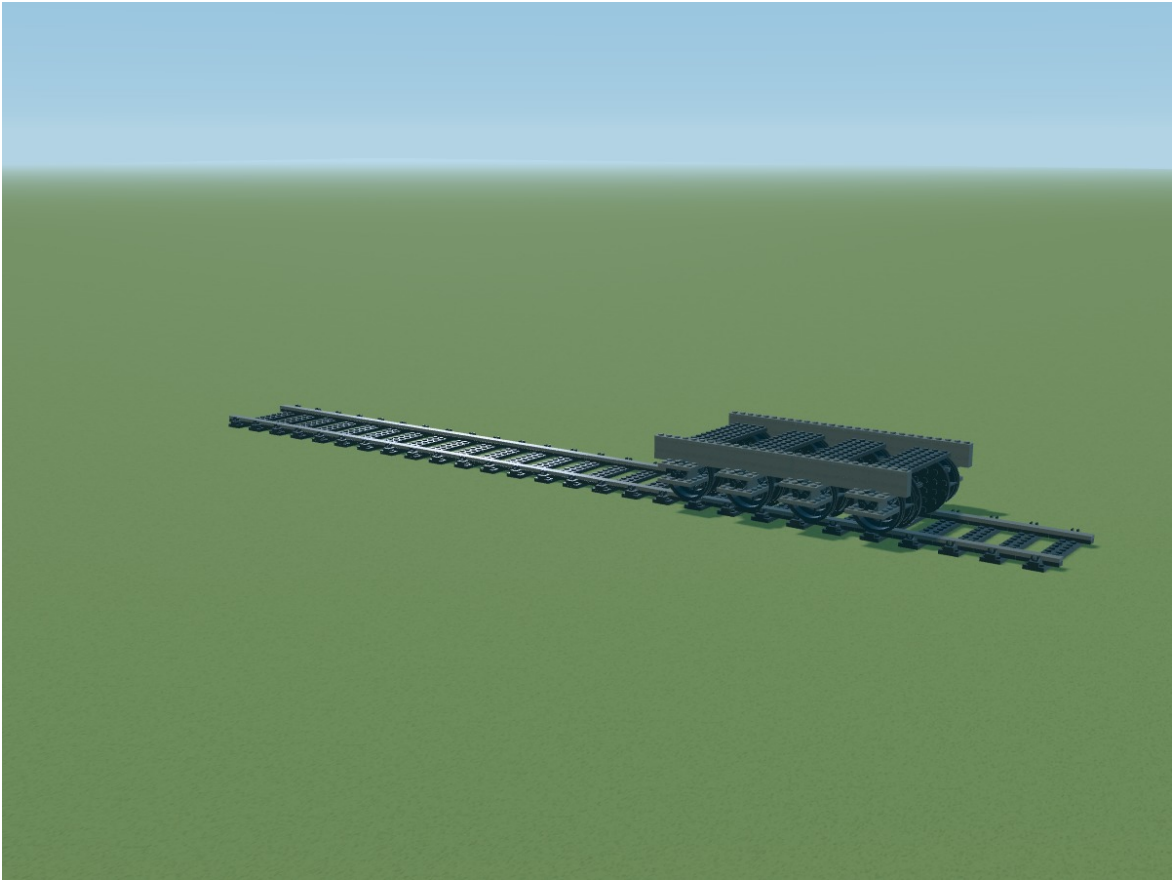
Added parts

Exact reference	Part and color · Step 7	Qty
3031	Plate 4 × 4 Dark Bluish Gray	16
3003	Brick 2 × 2 Dark Bluish Gray	8
3941	Round brick 2 × 2 with axle hole Black	8

Step 08 / 107 · Front bogie frame

Positions belong to the digital model. Connections still require a physical prototype.

40 elements · 344 cumulative elements



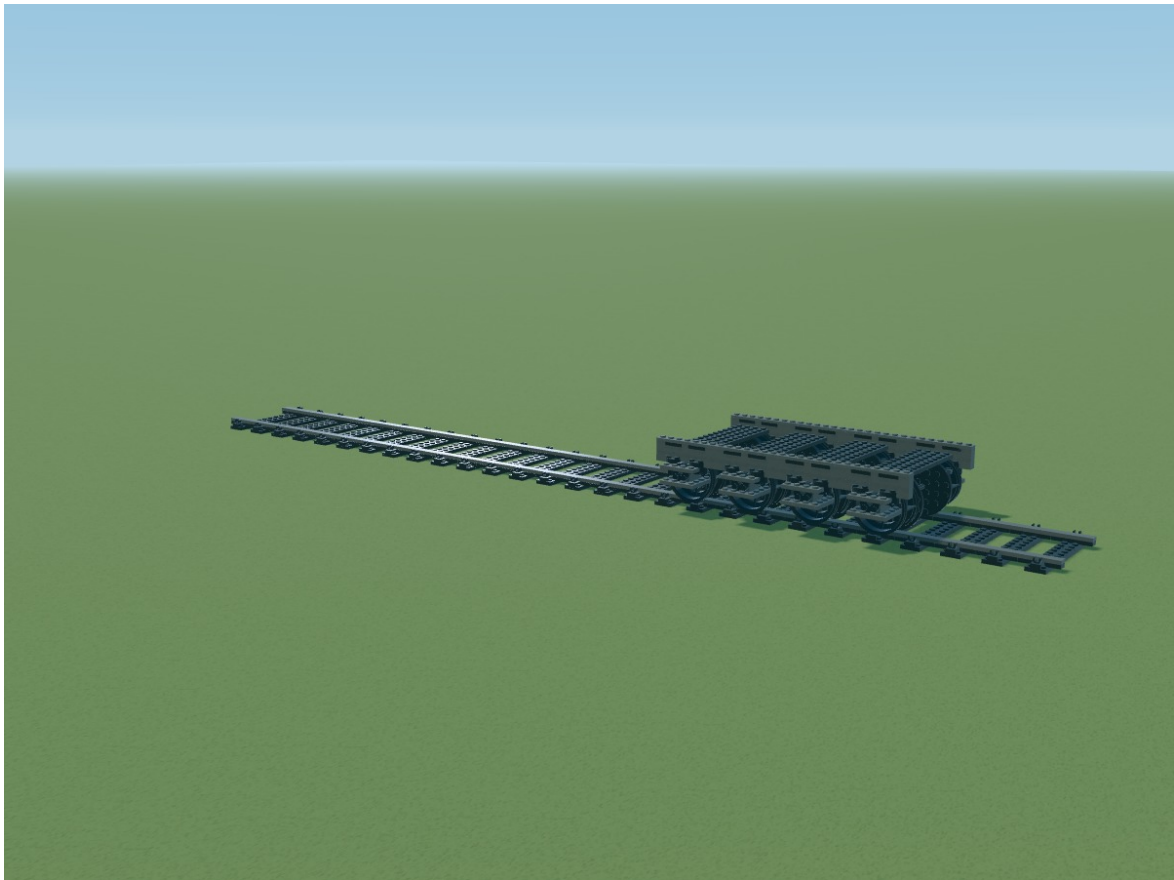
Added parts

Exact reference	Part and color · Step 8	Qty
3010	Brick 1 × 4 Dark Bluish Gray	28
3031	Plate 4 × 4 Black	12

Step 09 / 107 · Front suspension

Positions belong to the digital model. Connections still require a physical prototype.

32 elements · 376 cumulative elements



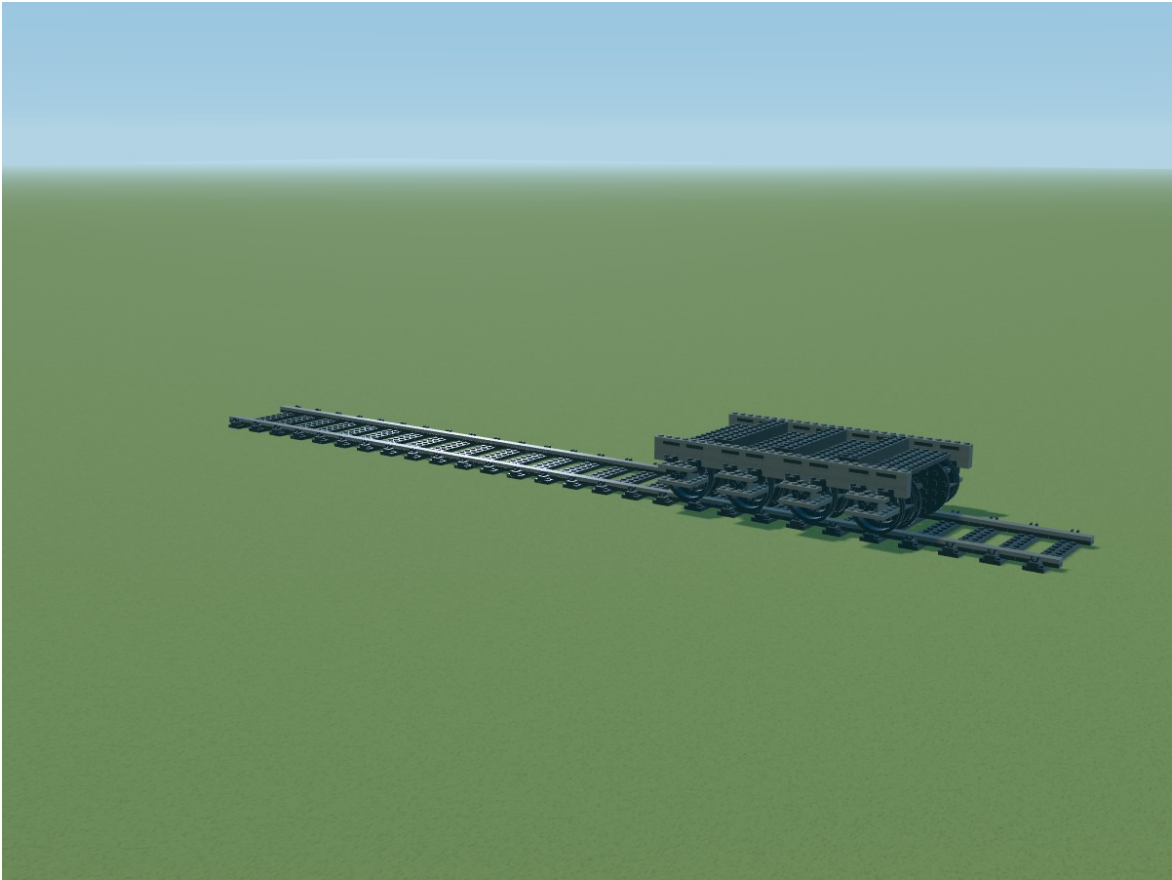
Added parts

Exact reference	Part and color · Step 9	Qty
3941	Round brick 2 × 2 with axle hole Black	16
2412b Catalogue ID	Grille tile 1 × 2 with bottom groove Black	16

Step 10 / 107 · Front bogie cross-members

Positions belong to the digital model. Connections still require a physical prototype.

9 elements · 385 cumulative elements



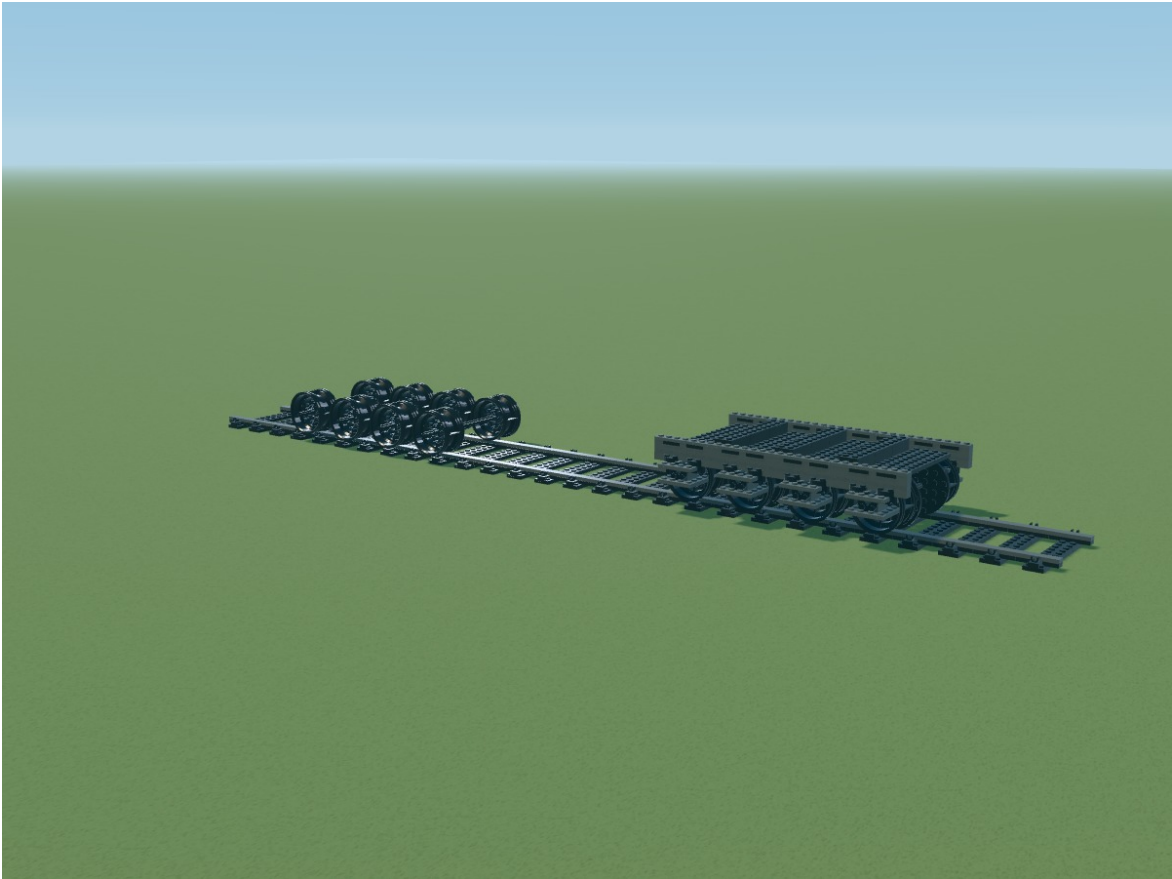
Added parts

Exact reference	Part and color · Step 10	Qty
3001	Brick 2 × 4 Black	9

Step 11 / 107 · Rear axles

Four axles per bogie. Wheels 56908 and flanges 11213 are referenced parts; their combination remains experimental.

12 elements · 397 cumulative elements



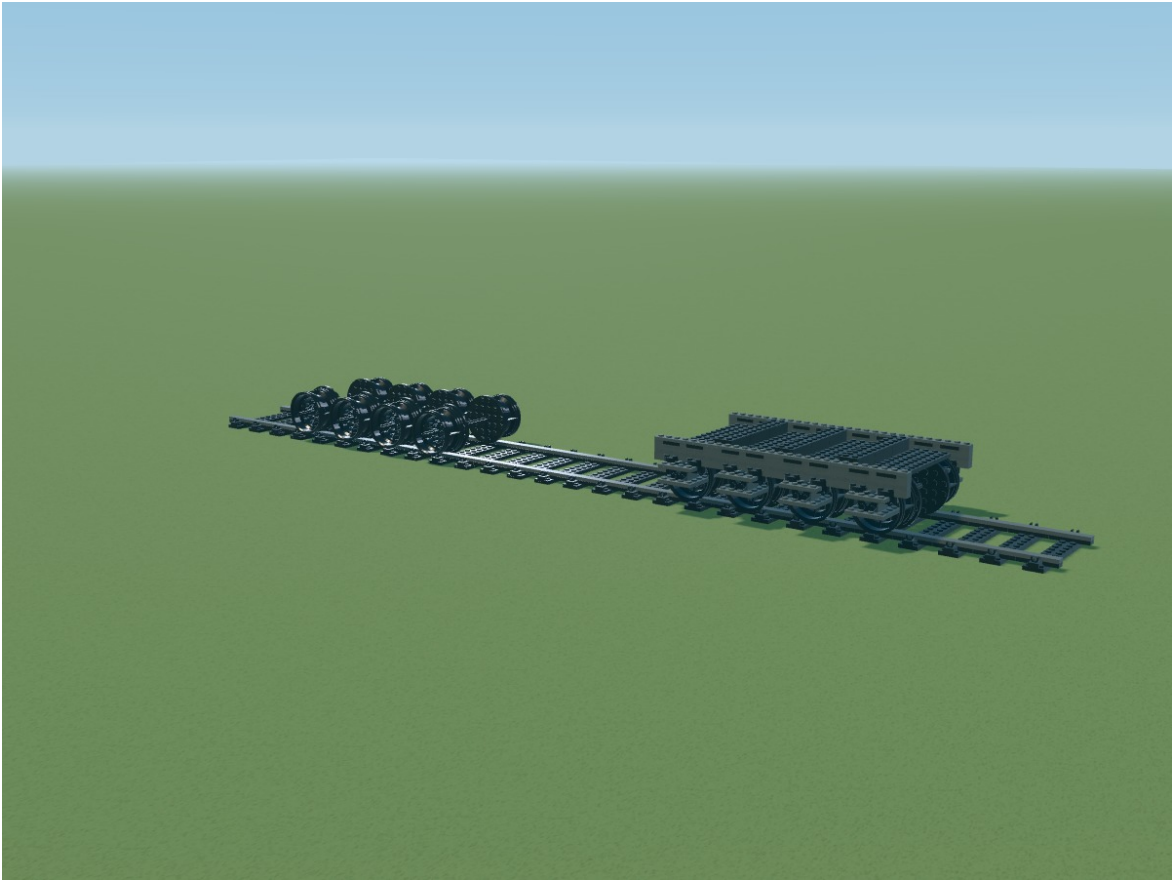
Added parts

Exact reference	Part and color · Step 11	Qty
50451	Technic axle 16L Black	4
56908	Technic wheel 43.2 mm × 26 mm Black	8

Step 12 / 107 · Rear wheel flanges

Positions belong to the digital model. Connections still require a physical prototype.

8 elements · 405 cumulative elements



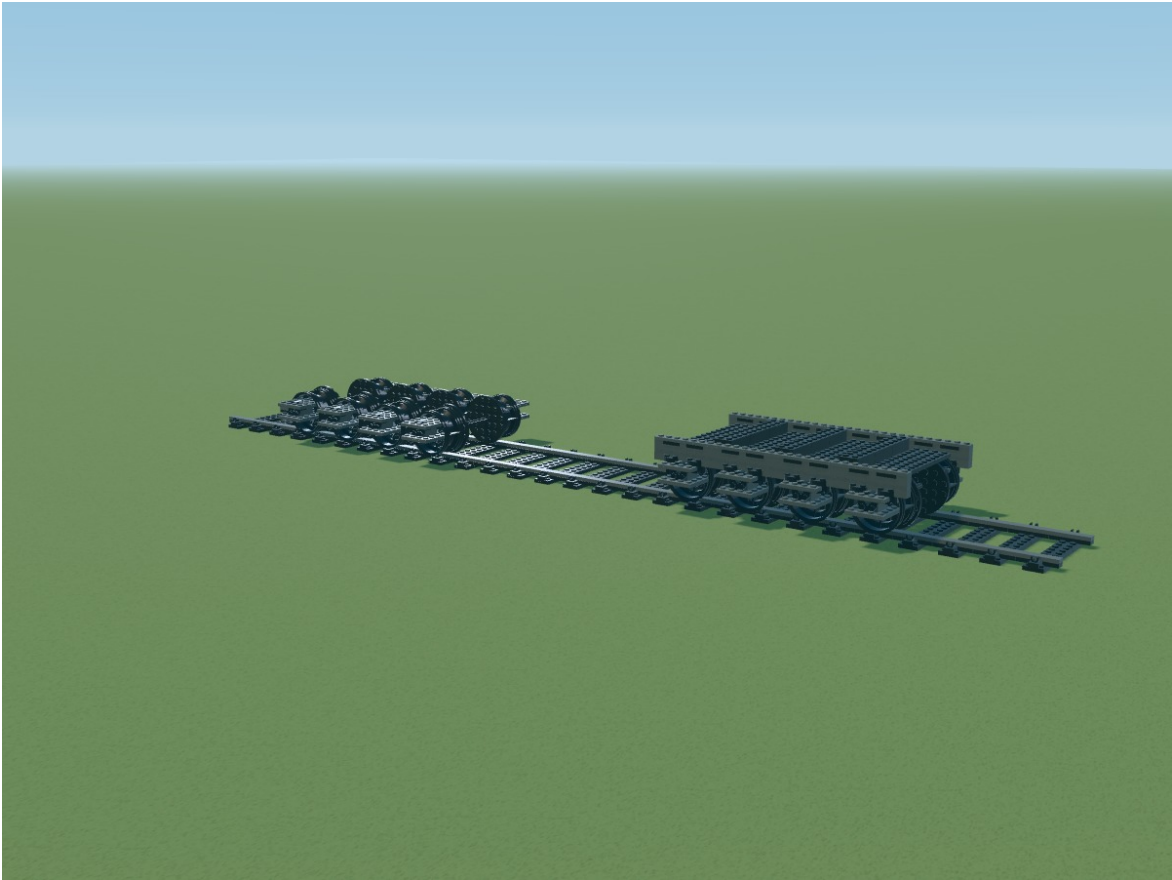
Added parts

Exact reference	Part and color · Step 12	Qty
11213	Round plate 6 × 6 with hole and snap stud Black	8

Step 13 / 107 · Rear axle boxes

Positions belong to the digital model. Connections still require a physical prototype.

32 elements · 437 cumulative elements



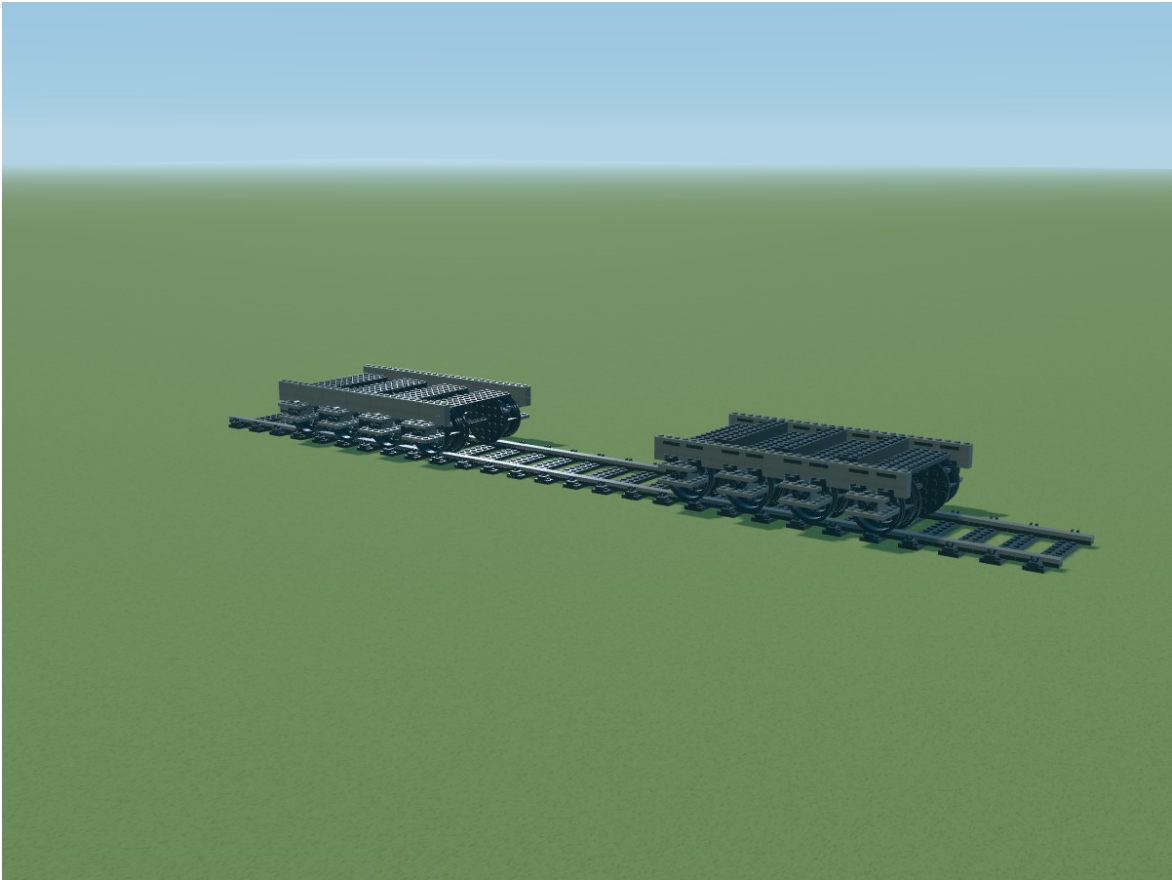
Added parts

Exact reference	Part and color · Step 13	Qty
3031	Plate 4 × 4 Dark Bluish Gray	16
3003	Brick 2 × 2 Dark Bluish Gray	8
3941	Round brick 2 × 2 with axle hole Black	8

Step 14 / 107 · Rear bogie frame

Positions belong to the digital model. Connections still require a physical prototype.

40 elements · 477 cumulative elements



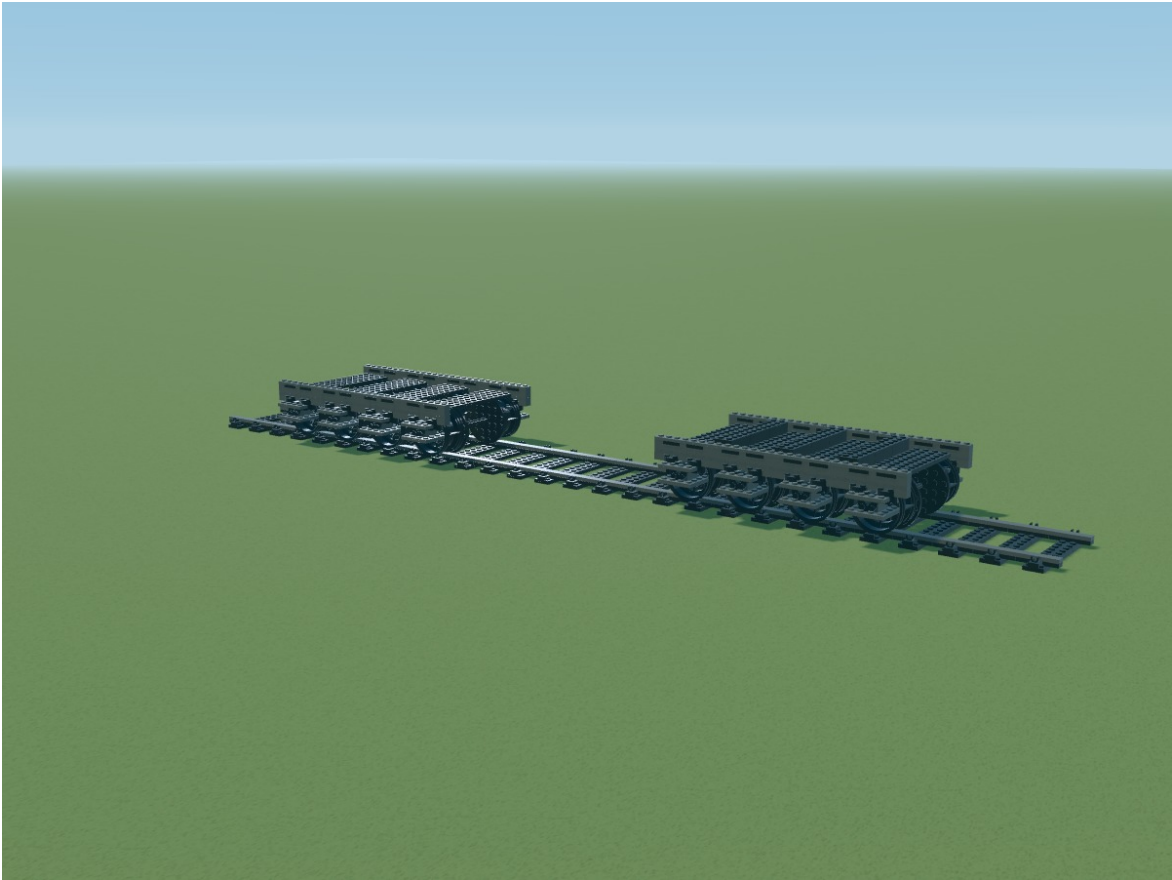
Added parts

Exact reference	Part and color · Step 14	Qty
3010	Brick 1 × 4 Dark Bluish Gray	28
3031	Plate 4 × 4 Black	12

Step 15 / 107 · Rear suspension

Positions belong to the digital model. Connections still require a physical prototype.

32 elements · 509 cumulative elements



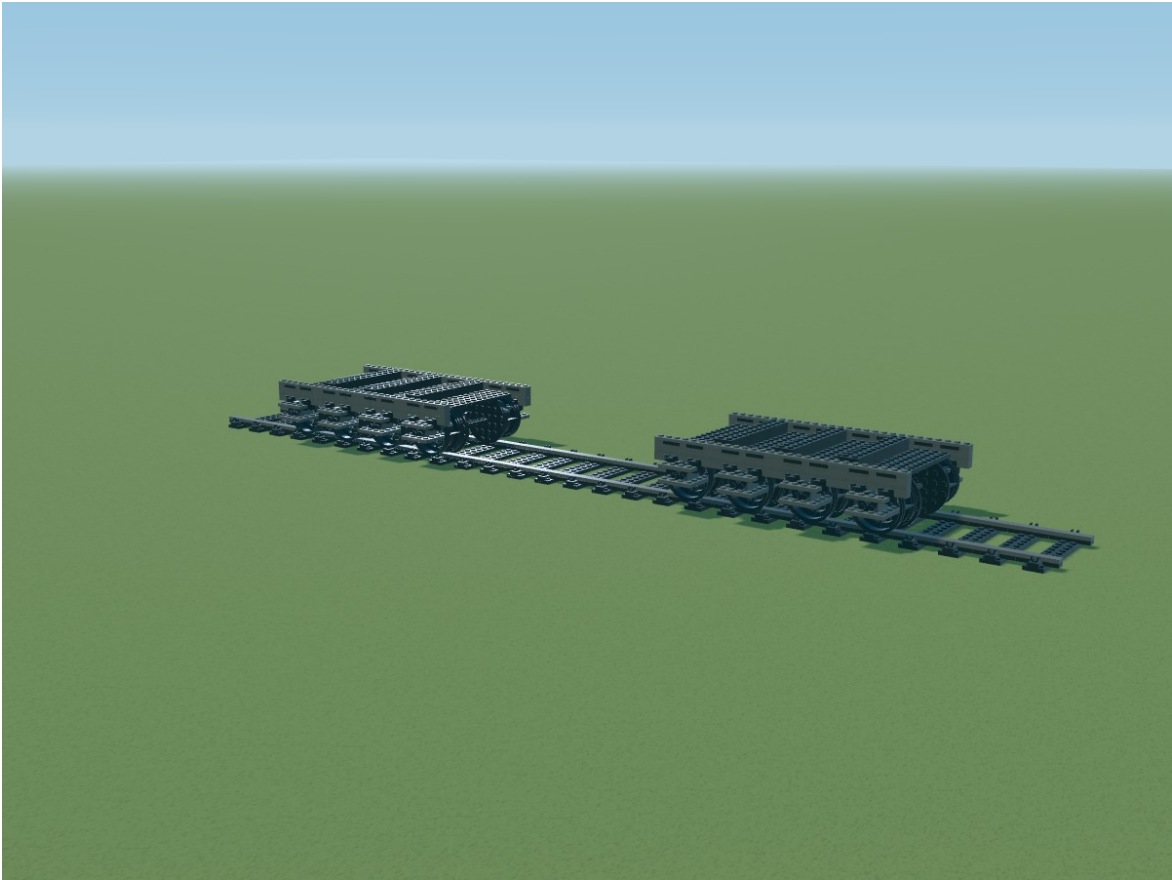
Added parts

Exact reference	Part and color · Step 15	Qty
3941	Round brick 2 × 2 with axle hole Black	16
2412b Catalogue ID	Grille tile 1 × 2 with bottom groove Black	16

Step 16 / 107 · Rear bogie cross-members

Positions belong to the digital model. Connections still require a physical prototype.

9 elements · 518 cumulative elements



Added parts

Exact reference	Part and color · Step 16	Qty
3001	Brick 2 × 4 Black	9

Step 17 / 107 · Lower chassis floor

Positions belong to the digital model. Connections still require a physical prototype.

176 elements · 694 cumulative elements



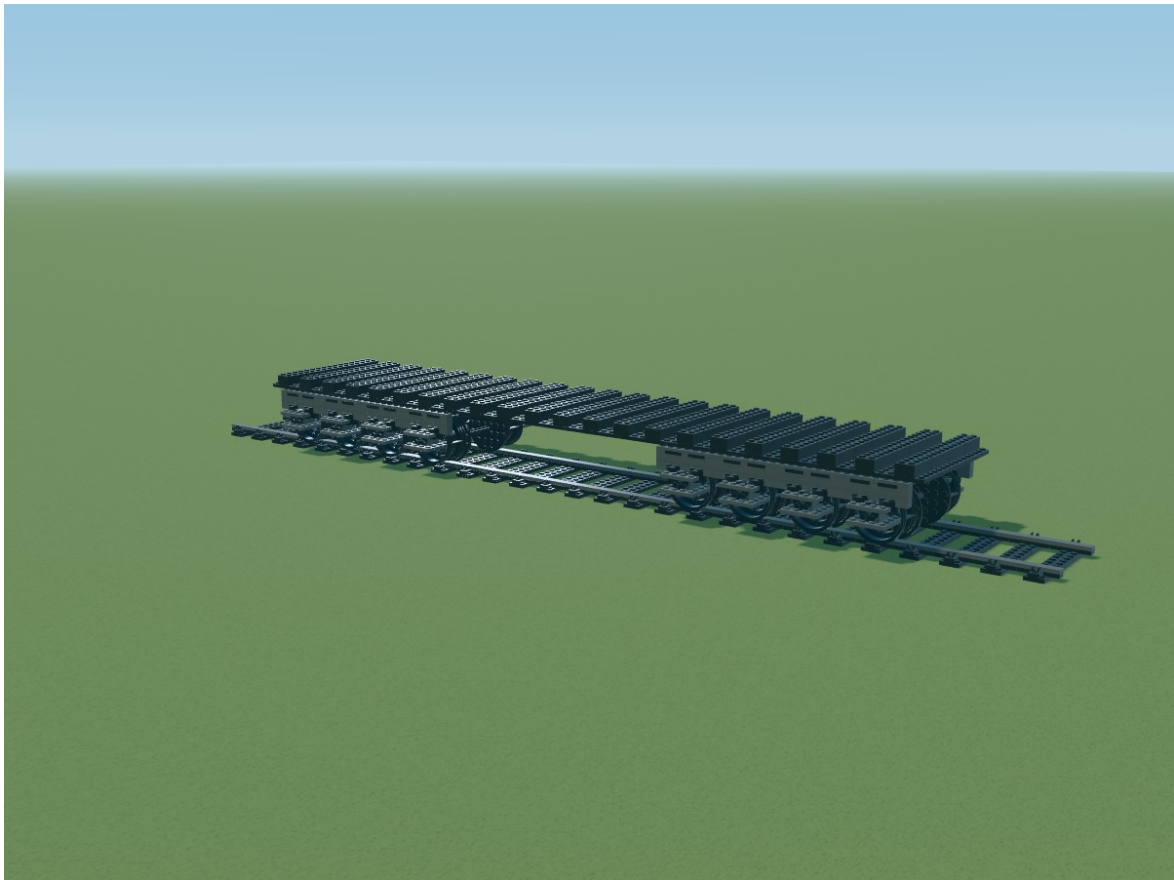
Added parts

Exact reference	Part and color · Step 17	Qty
3020	Plate 2 × 4 Black	176

Step 18 / 107 · Transverse reinforcement

Positions belong to the digital model. Connections still require a physical prototype.

88 elements · 782 cumulative elements



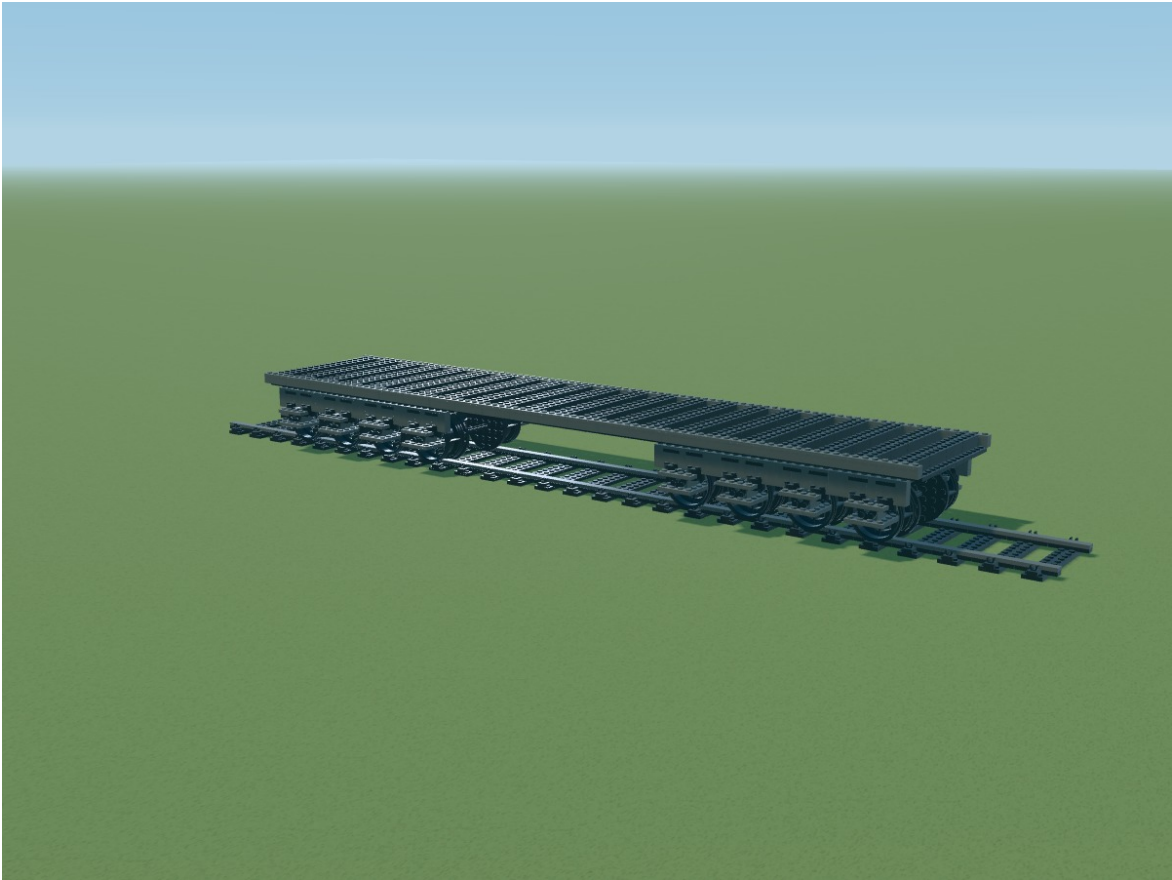
Added parts

Exact reference	Part and color · Step 18	Qty
3001	Brick 2 × 4 Black	88

Step 19 / 107 · Main longitudinal beams

Positions belong to the digital model. Connections still require a physical prototype.

44 elements · 826 cumulative elements



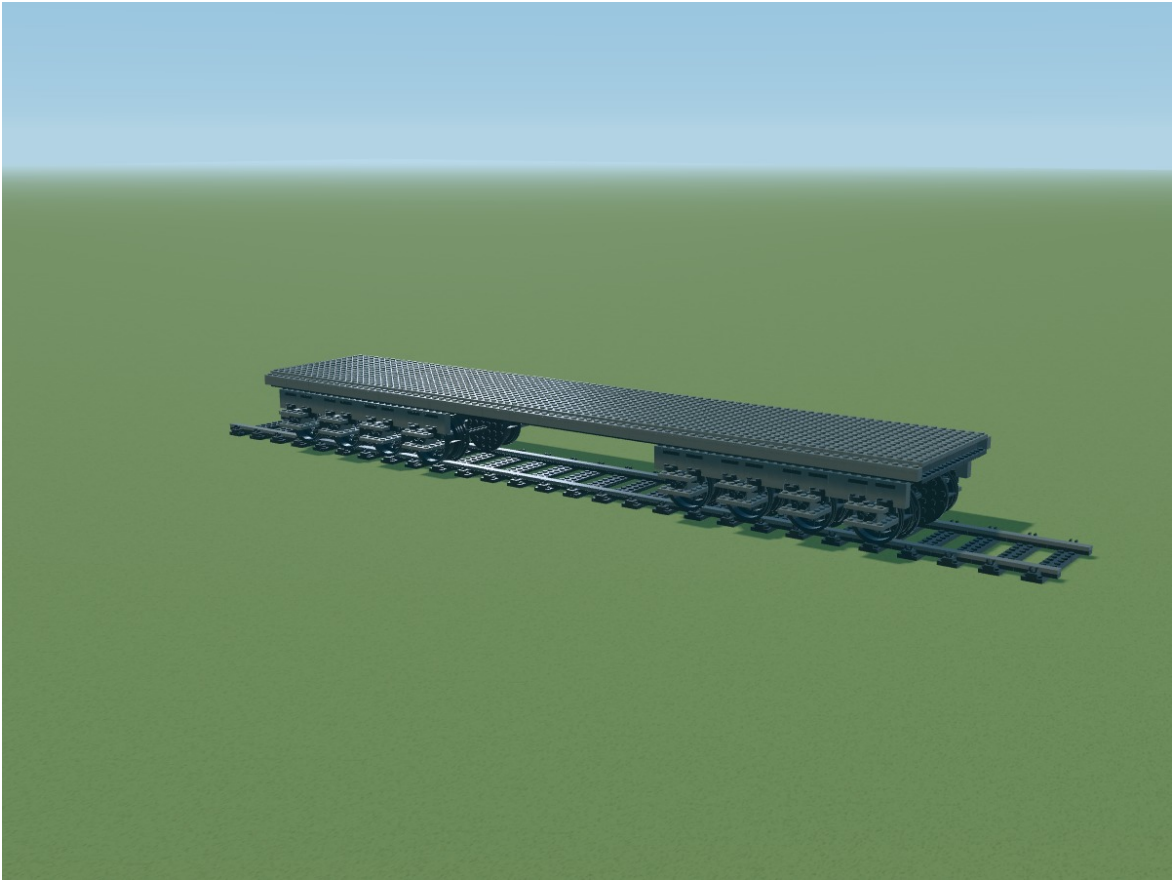
Added parts

Exact reference	Part and color · Step 19	Qty
3010	Brick 1 × 4 Dark Bluish Gray	44

Step 20 / 107 · Cross-bonded floor

Positions belong to the digital model. Connections still require a physical prototype.

176 elements · 1002 cumulative elements



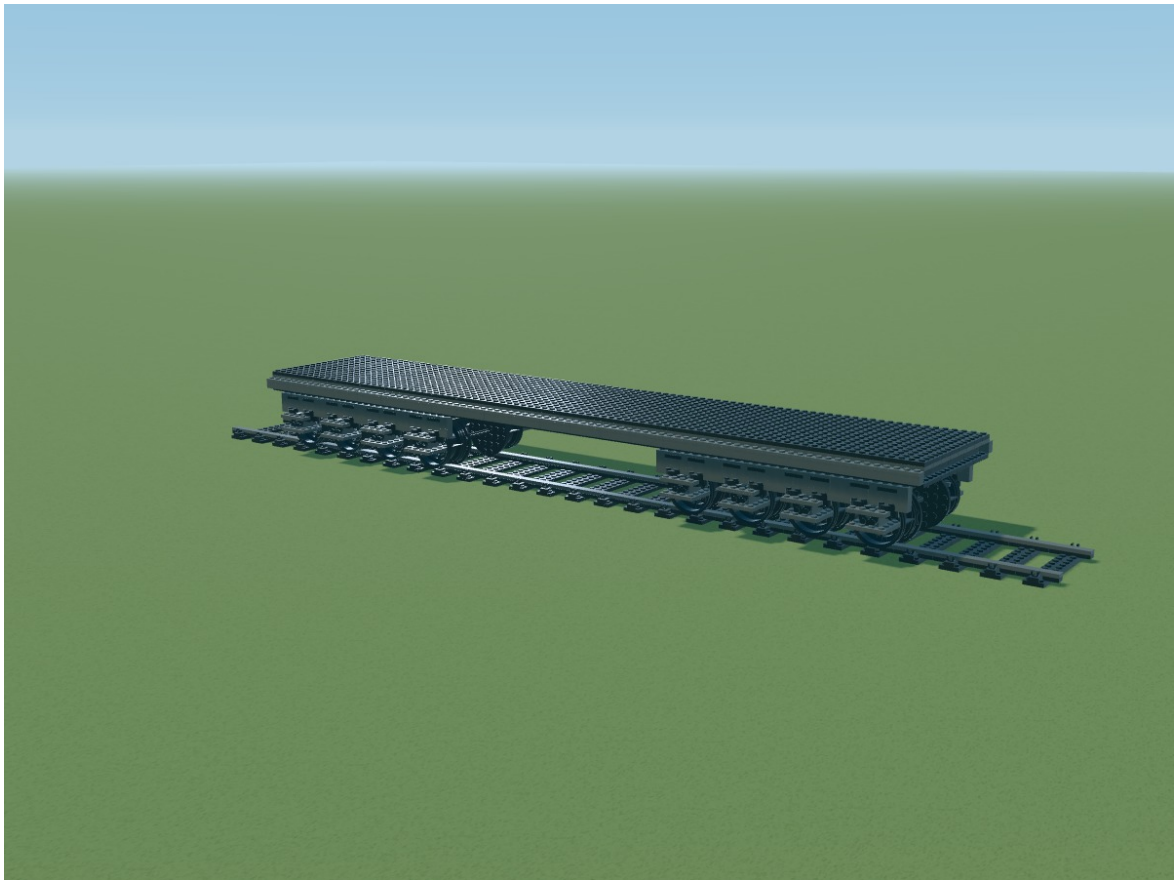
Added parts

Exact reference	Part and color · Step 20	Qty
3020	Plate 2 × 4 Dark Bluish Gray	176

Step 21 / 107 · Chassis walkways

Positions belong to the digital model. Connections still require a physical prototype.

176 elements · 1178 cumulative elements



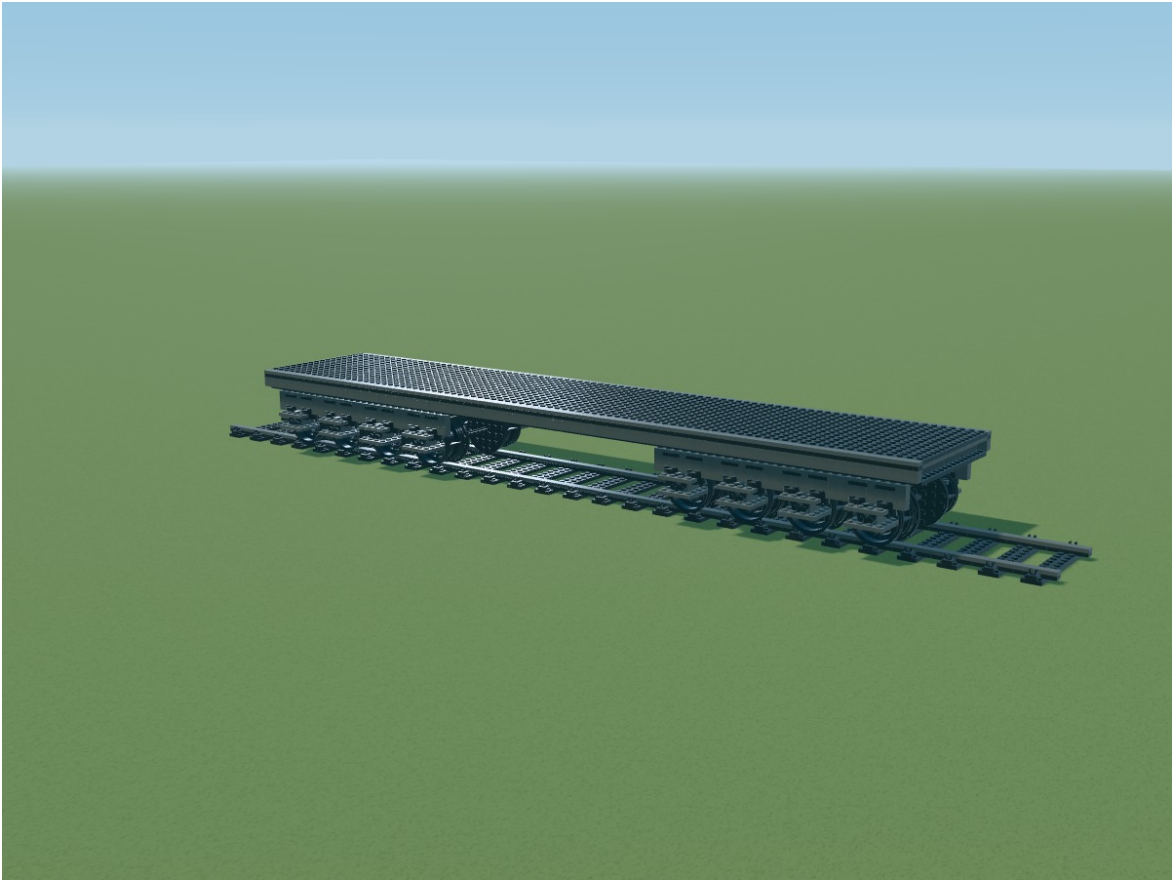
Added parts

Exact reference	Part and color · Step 21	Qty
3020	Plate 2 × 4 Black	176

Step 22 / 107 · Walkway edges

Positions belong to the digital model. Connections still require a physical prototype.

88 elements · 1266 cumulative elements



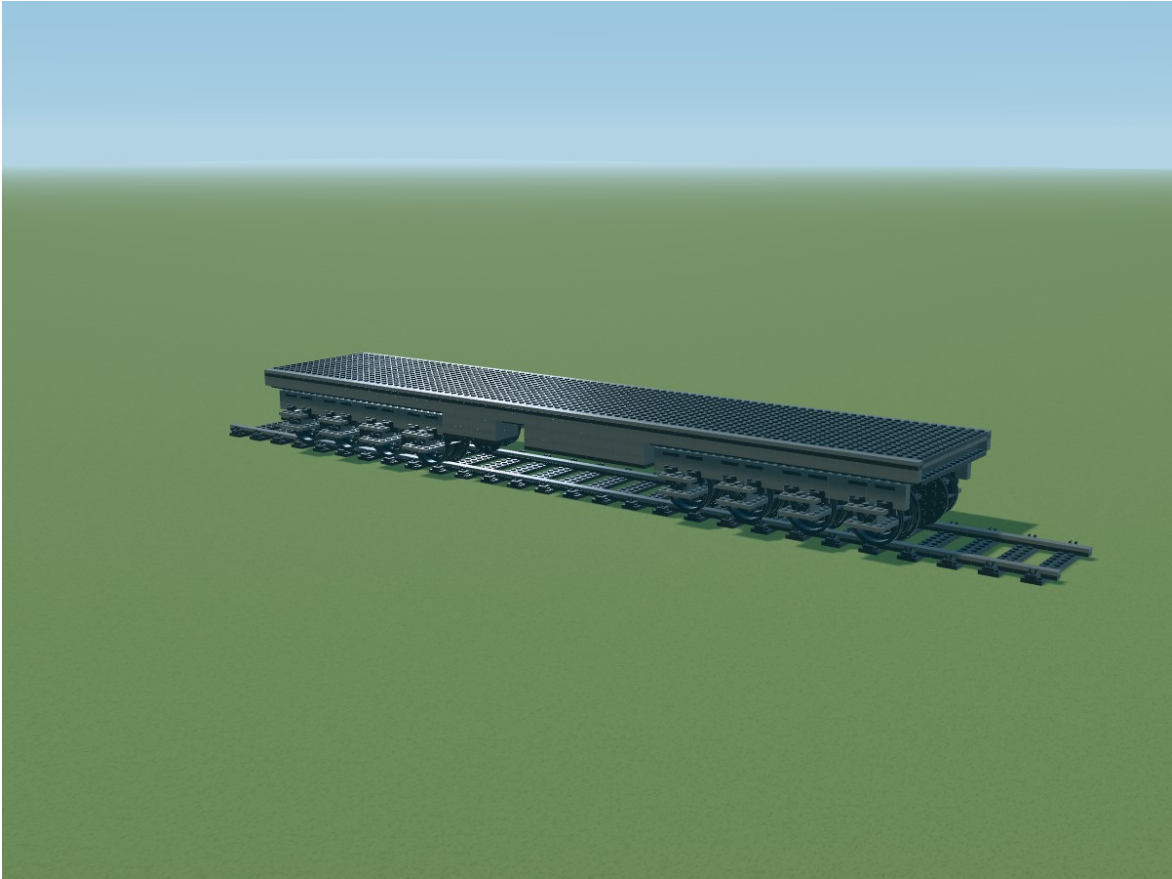
Added parts

Exact reference	Part and color · Step 22	Qty
3710	Plate 1 × 4 Black	44
2431	Tile 1 × 4 Dark Bluish Gray	44

Step 23 / 107 · Underframe equipment boxes

Positions belong to the digital model. Connections still require a physical prototype.

72 elements · 1338 cumulative elements



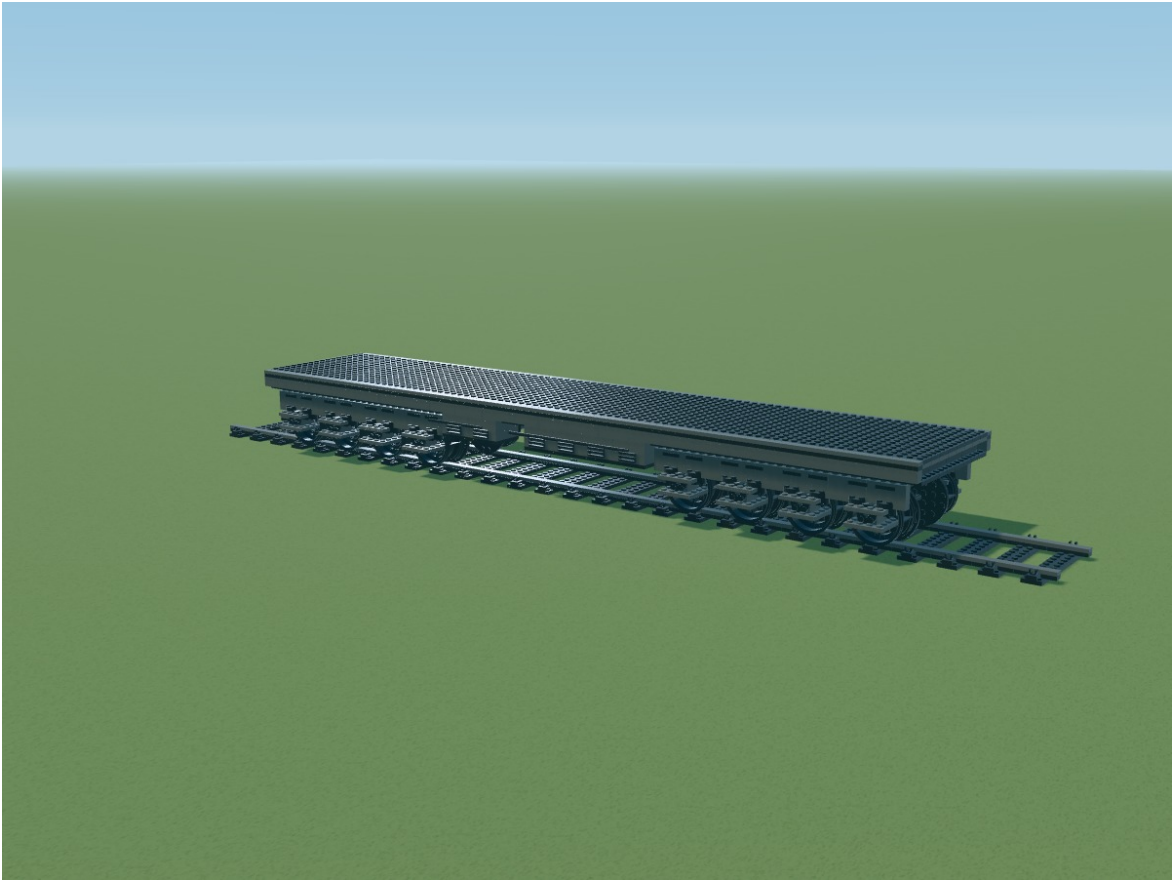
Added parts

Exact reference	Part and color · Step 23	Qty
3020	Plate 2 × 4 Black	24
3001	Brick 2 × 4 Dark Bluish Gray	48

Step 24 / 107 · Equipment box faces

Positions belong to the digital model. Connections still require a physical prototype.

24 elements · 1362 cumulative elements



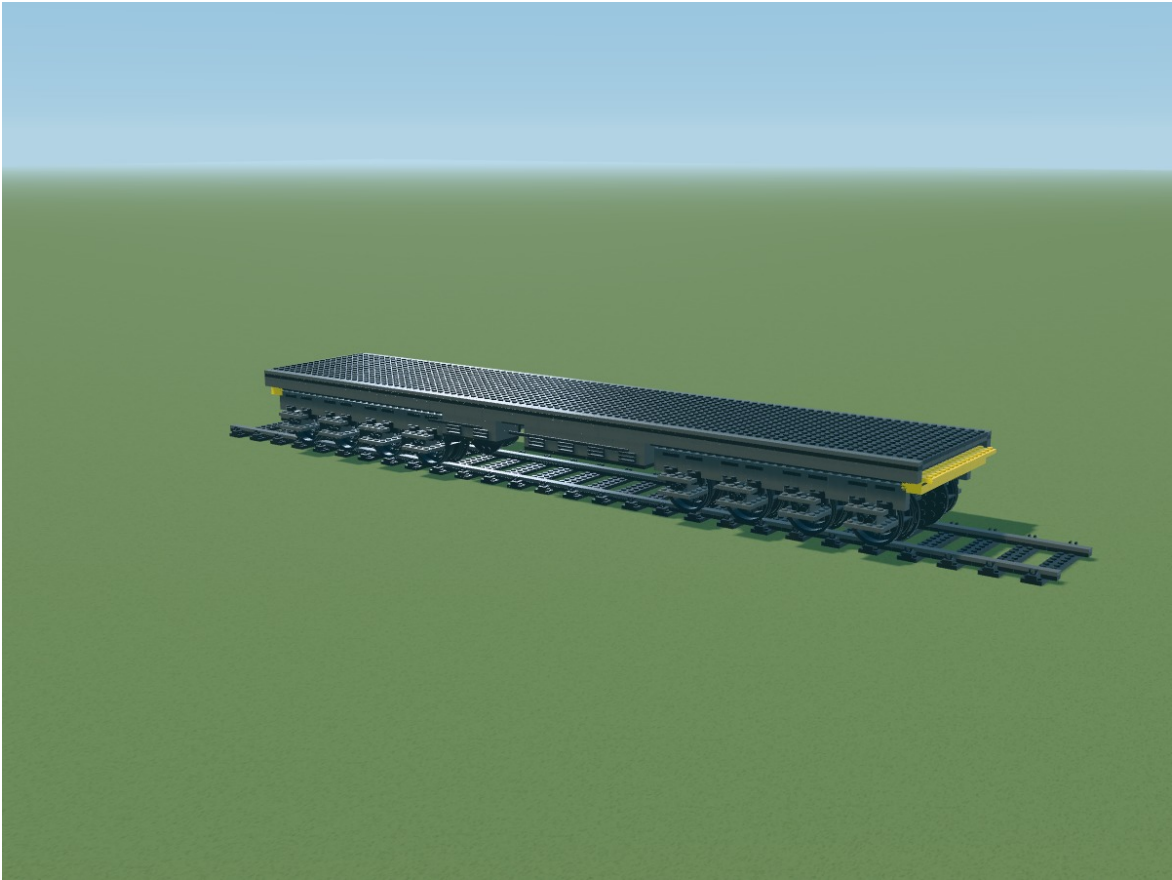
Added parts

Exact reference	Part and color · Step 24	Qty
2412b Catalogue ID	Grille tile 1 × 2 with bottom groove Black	12
30374	Bar 4L Black	12

Step 25 / 107 · End beams

Positions belong to the digital model. Connections still require a physical prototype.

32 elements · 1394 cumulative elements



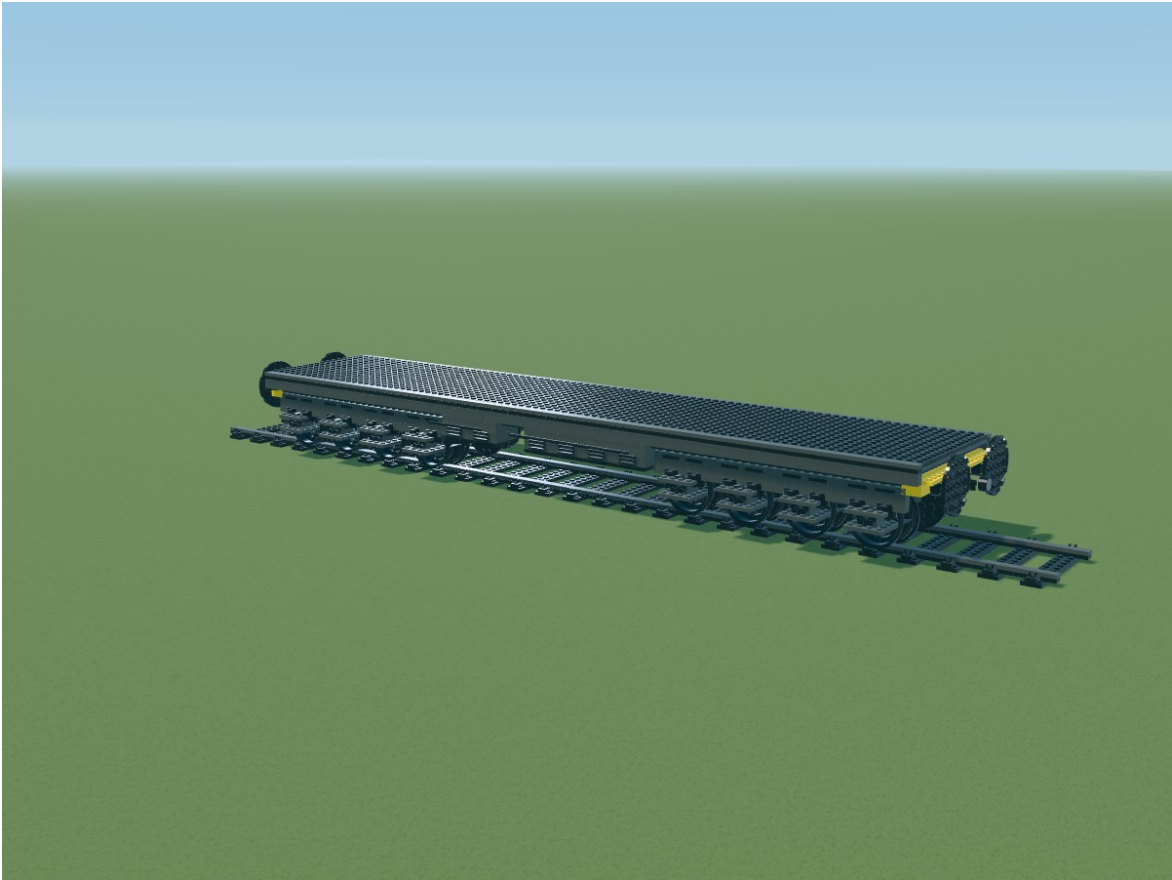
Added parts

Exact reference	Part and color · Step 25	Qty
3003	Brick 2 × 2 Yellow	16
3020	Plate 2 × 4 Yellow	16

Step 26 / 107 · Buffers and couplers

Positions belong to the digital model. Connections still require a physical prototype.

12 elements · 1406 cumulative elements



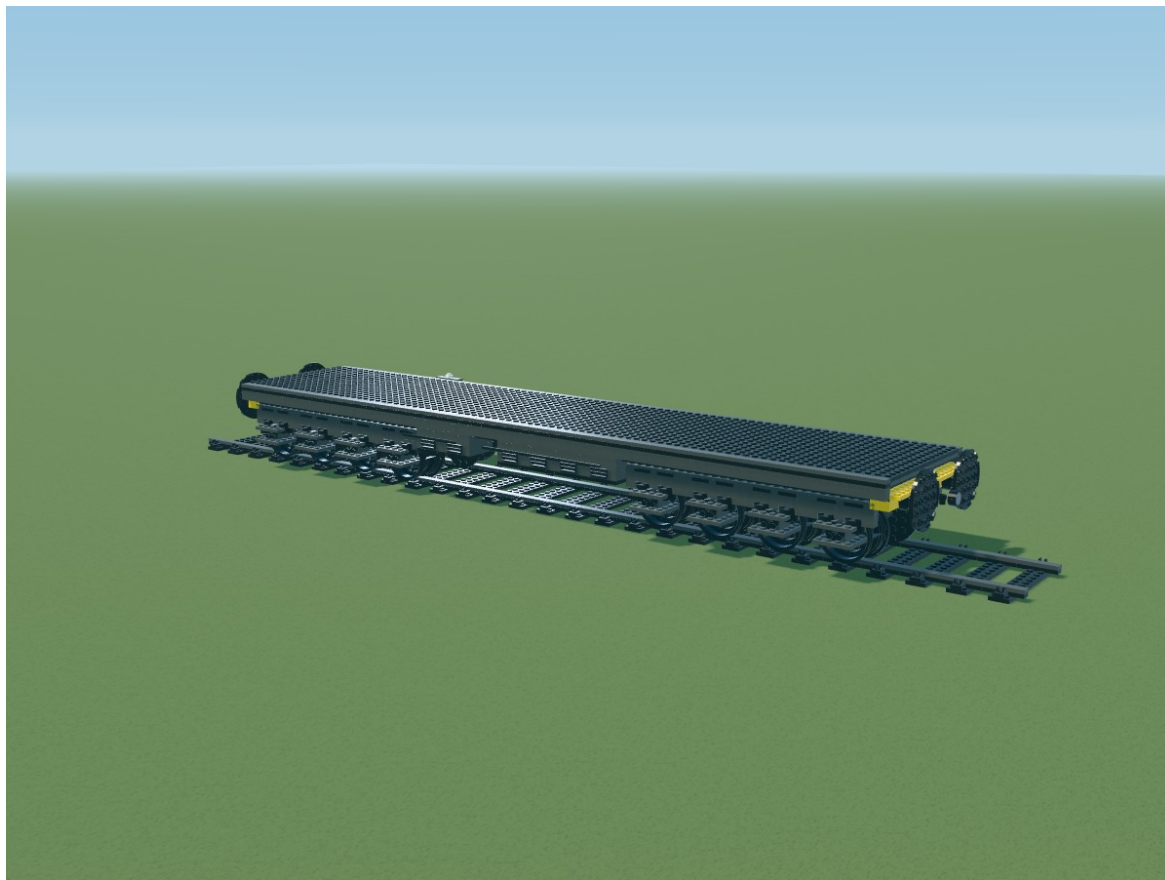
Added parts

Exact reference	Part and color · Step 26	Qty
3941	Round brick 2 × 2 with axle hole Black	4
11213	Round plate 6 × 6 with hole and snap stud Black	4
2920	Train coupling magnet holder Black	2
73092	Cylindrical train coupling magnet Black	2

Step 27 / 107 · Rear left stabilizer

Arm, leg and pad stay together during digital motion. Stability and locking must be tested.

35 elements · 1441 cumulative elements



Added parts

Exact reference	Part and color · Step 27	Qty
3020	Plate 2 × 4 Yellow	15
3941	Round brick 2 × 2 with axle hole Dark Bluish Gray	3
3941	Round brick 2 × 2 with axle hole Black	2
3031	Plate 4 × 4 Black	2
3031	Plate 4 × 4 Yellow	1
2431	Tile 1 × 4 Black	1
4073	Round plate 1 × 1 White	1

Step 27 / 107 · Rear left stabilizer (continued)

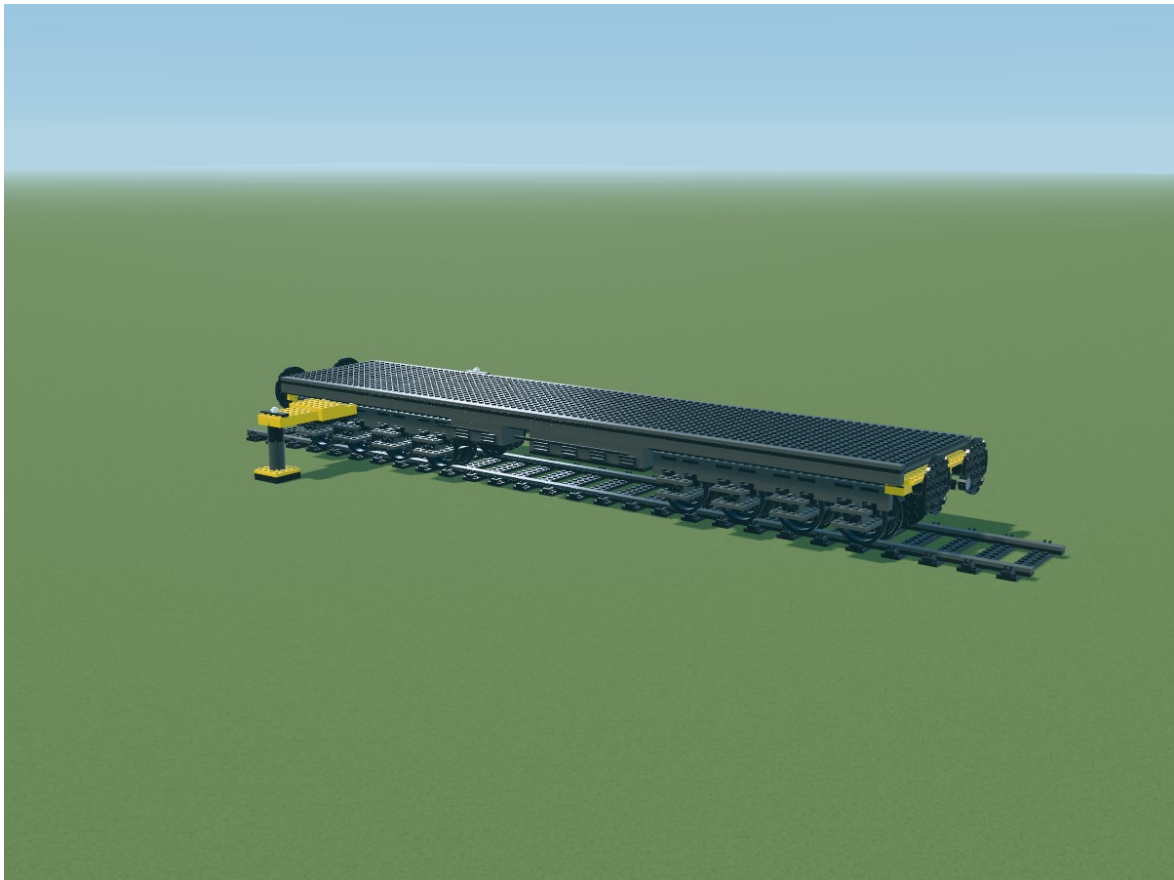
Added parts

Exact reference	Part and color · Step 27	Qty
3020	Plate 2 × 4 Black	6
3010	Brick 1 × 4 Yellow	4

Step 28 / 107 · Rear right stabilizer

Arm, leg and pad stay together during digital motion. Stability and locking must be tested.

35 elements · 1476 cumulative elements



Added parts

Exact reference	Part and color · Step 28	Qty
3020	Plate 2 × 4 Yellow	15
3941	Round brick 2 × 2 with axle hole Dark Bluish Gray	3
3941	Round brick 2 × 2 with axle hole Black	2
3031	Plate 4 × 4 Black	2
3031	Plate 4 × 4 Yellow	1
2431	Tile 1 × 4 Black	1
4073	Round plate 1 × 1 White	1

Step 28 / 107 · Rear right stabilizer (continued)

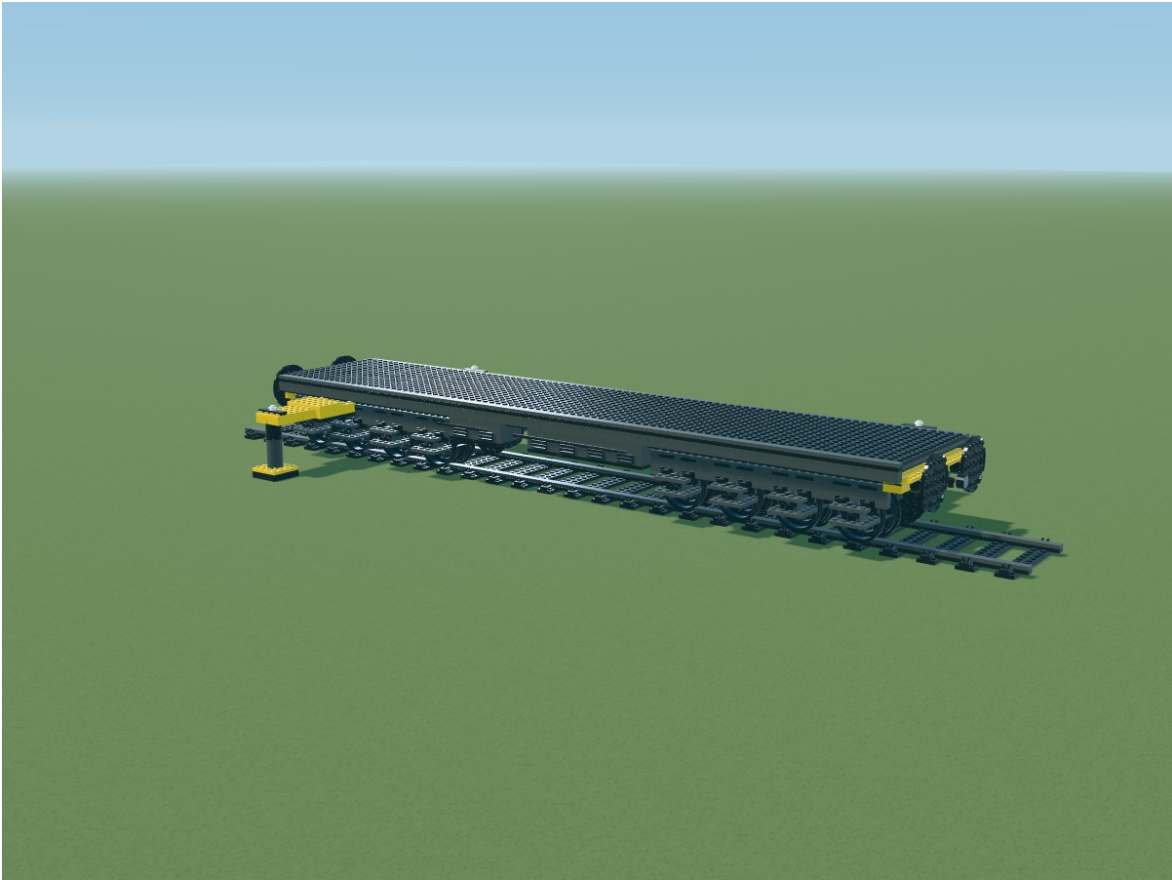
Added parts

Exact reference	Part and color · Step 28	Qty
3020	Plate 2 × 4 Black	6
3010	Brick 1 × 4 Yellow	4

Step 29 / 107 · Front left stabilizer

Arm, leg and pad stay together during digital motion. Stability and locking must be tested.

35 elements · 1511 cumulative elements



Added parts

Exact reference	Part and color · Step 29	Qty
3020	Plate 2 × 4 Yellow	15
3941	Round brick 2 × 2 with axle hole Dark Bluish Gray	3
3941	Round brick 2 × 2 with axle hole Black	2
3031	Plate 4 × 4 Black	2
3031	Plate 4 × 4 Yellow	1
2431	Tile 1 × 4 Black	1
4073	Round plate 1 × 1 White	1

Step 29 / 107 · Front left stabilizer (continued)

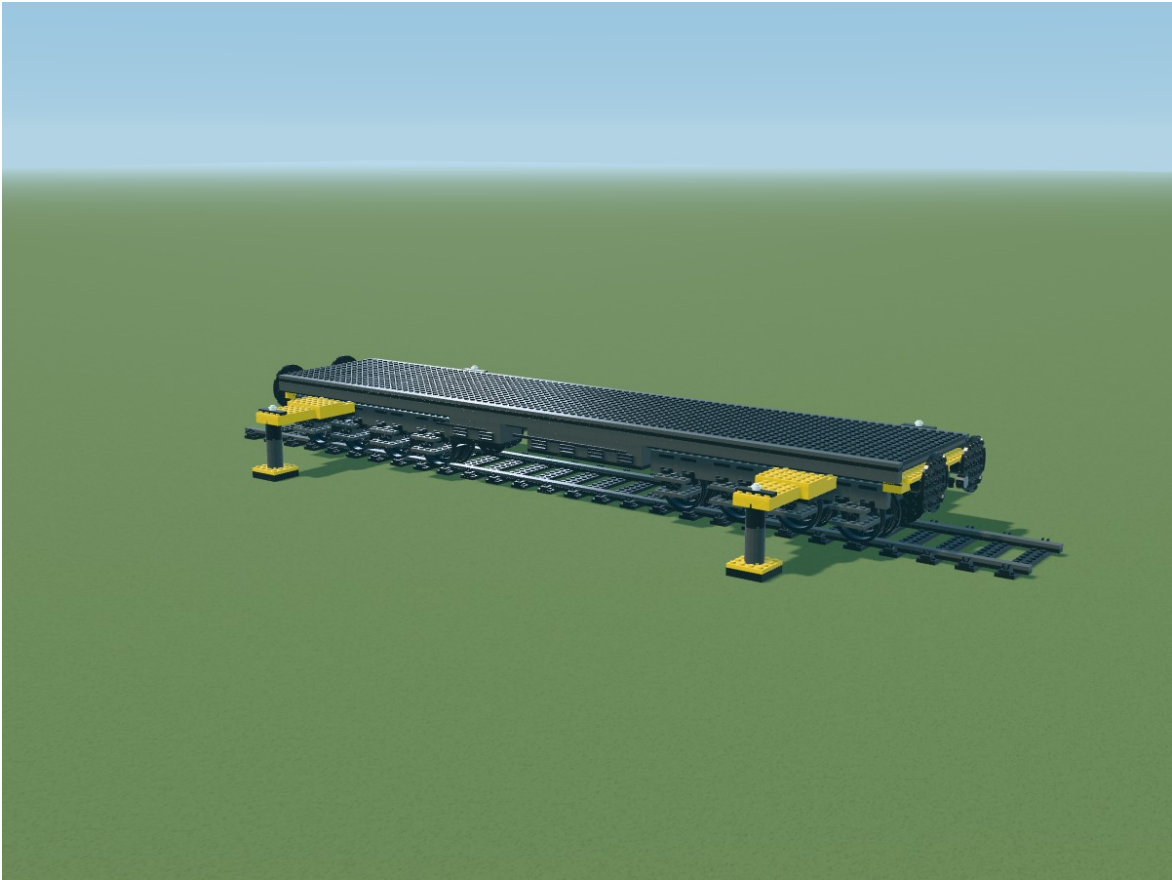
Added parts

Exact reference	Part and color · Step 29	Qty
3020	Plate 2 × 4 Black	6
3010	Brick 1 × 4 Yellow	4

Step 30 / 107 · Front right stabilizer

Arm, leg and pad stay together during digital motion. Stability and locking must be tested.

35 elements · 1546 cumulative elements



Added parts

Exact reference	Part and color · Step 30	Qty
3020	Plate 2 × 4 Yellow	15
3941	Round brick 2 × 2 with axle hole Dark Bluish Gray	3
3941	Round brick 2 × 2 with axle hole Black	2
3031	Plate 4 × 4 Black	2
3031	Plate 4 × 4 Yellow	1
2431	Tile 1 × 4 Black	1
4073	Round plate 1 × 1 White	1

Step 30 / 107 · Front right stabilizer (continued)

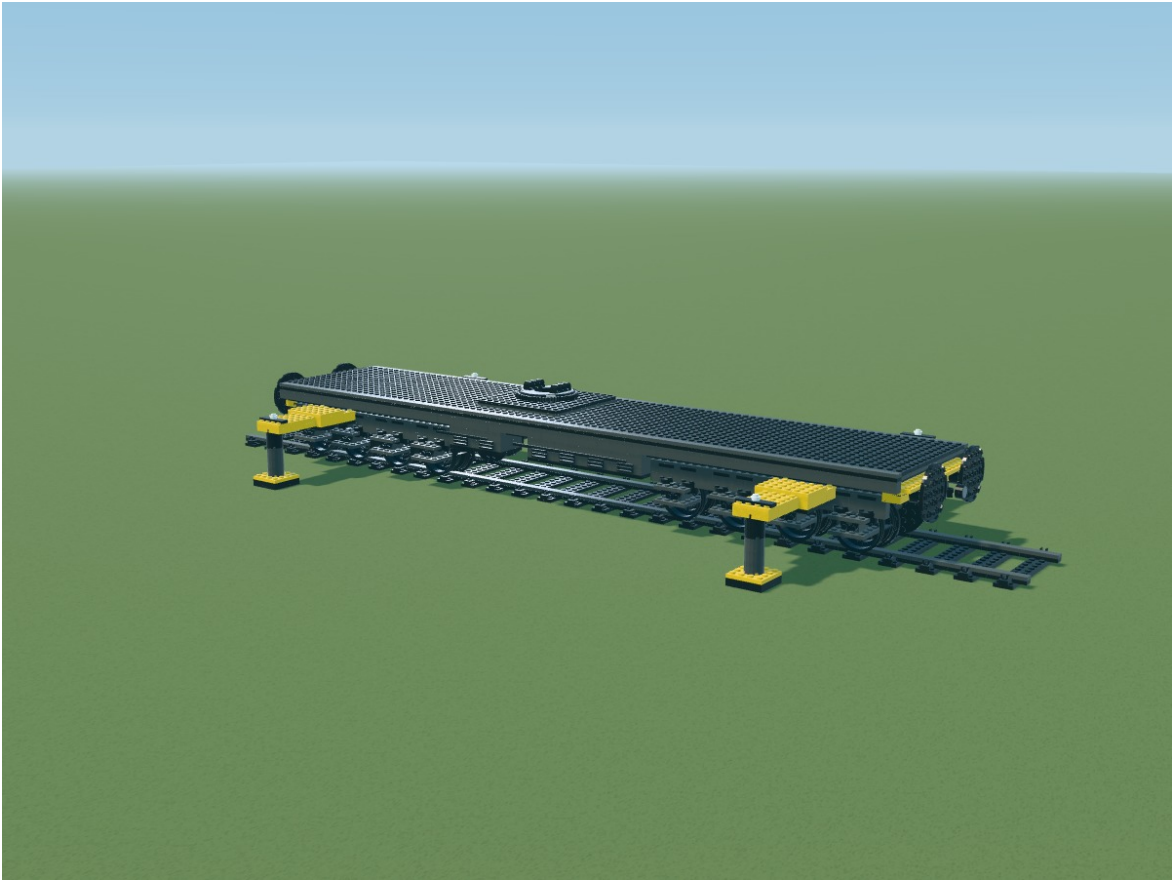
Added parts

Exact reference	Part and color · Step 30	Qty
3020	Plate 2 × 4 Black	6
3010	Brick 1 × 4 Yellow	4

Step 31 / 107 · Slewing ring

Positions belong to the digital model. Connections still require a physical prototype.

20 elements · 1566 cumulative elements



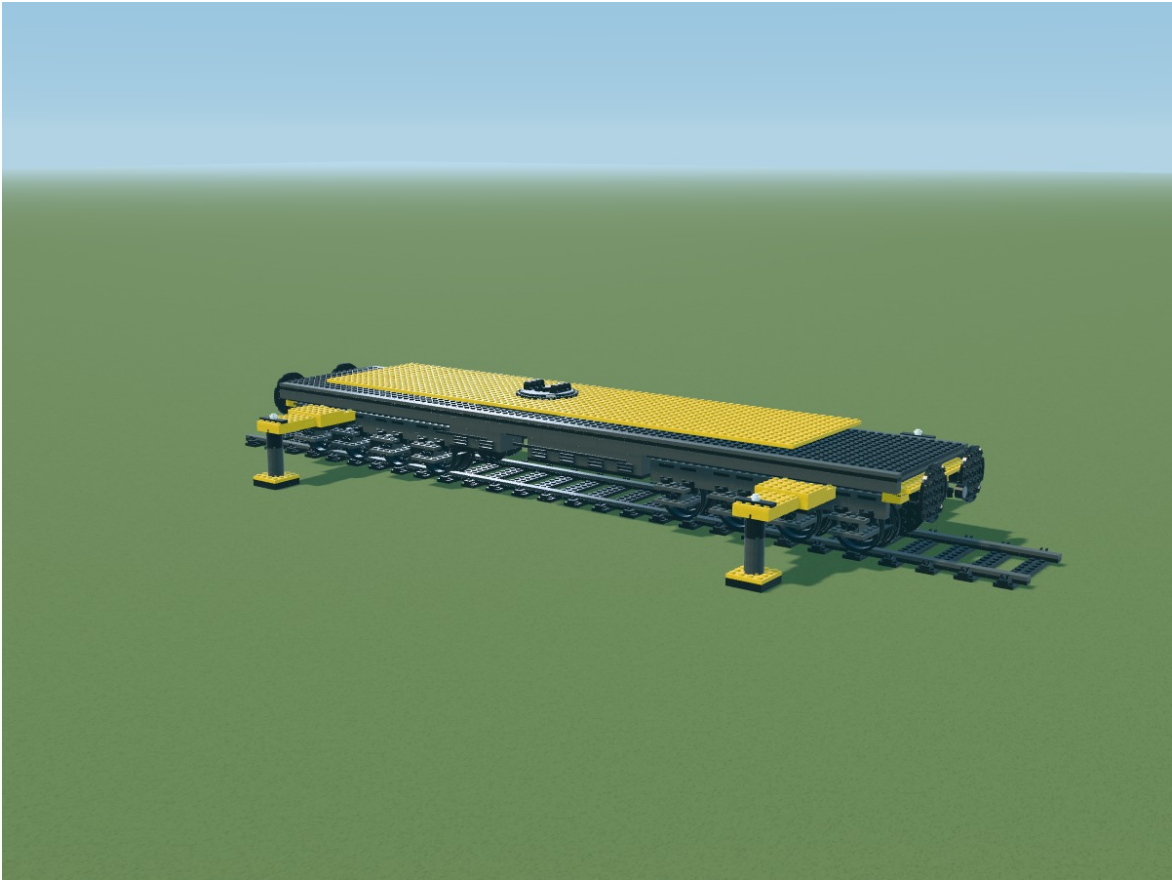
Added parts

Exact reference	Part and color · Step 31	Qty
3031	Plate 4 × 4 Dark Bluish Gray	9
3031	Plate 4 × 4 Black	9
18939	Technic 60-tooth turntable, base Light Bluish Gray	1
18938	Technic 60-tooth bevel turntable, top Black	1

Step 32 / 107 · Rotating platform

Positions belong to the digital model. Connections still require a physical prototype.

136 elements · 1702 cumulative elements



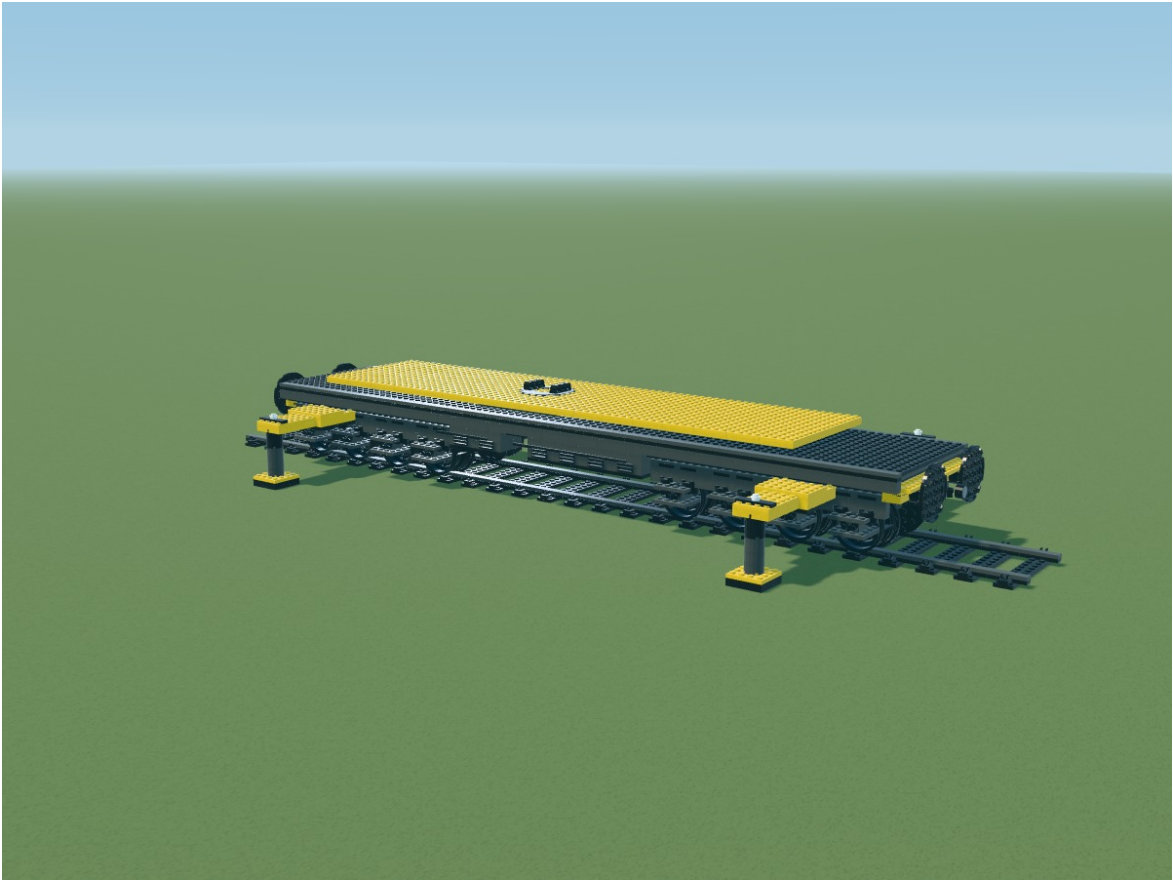
Added parts

Exact reference	Part and color · Step 32	Qty
3020	Plate 2 × 4 Yellow	136

Step 33 / 107 · Platform bracing

Positions belong to the digital model. Connections still require a physical prototype.

136 elements · 1838 cumulative elements



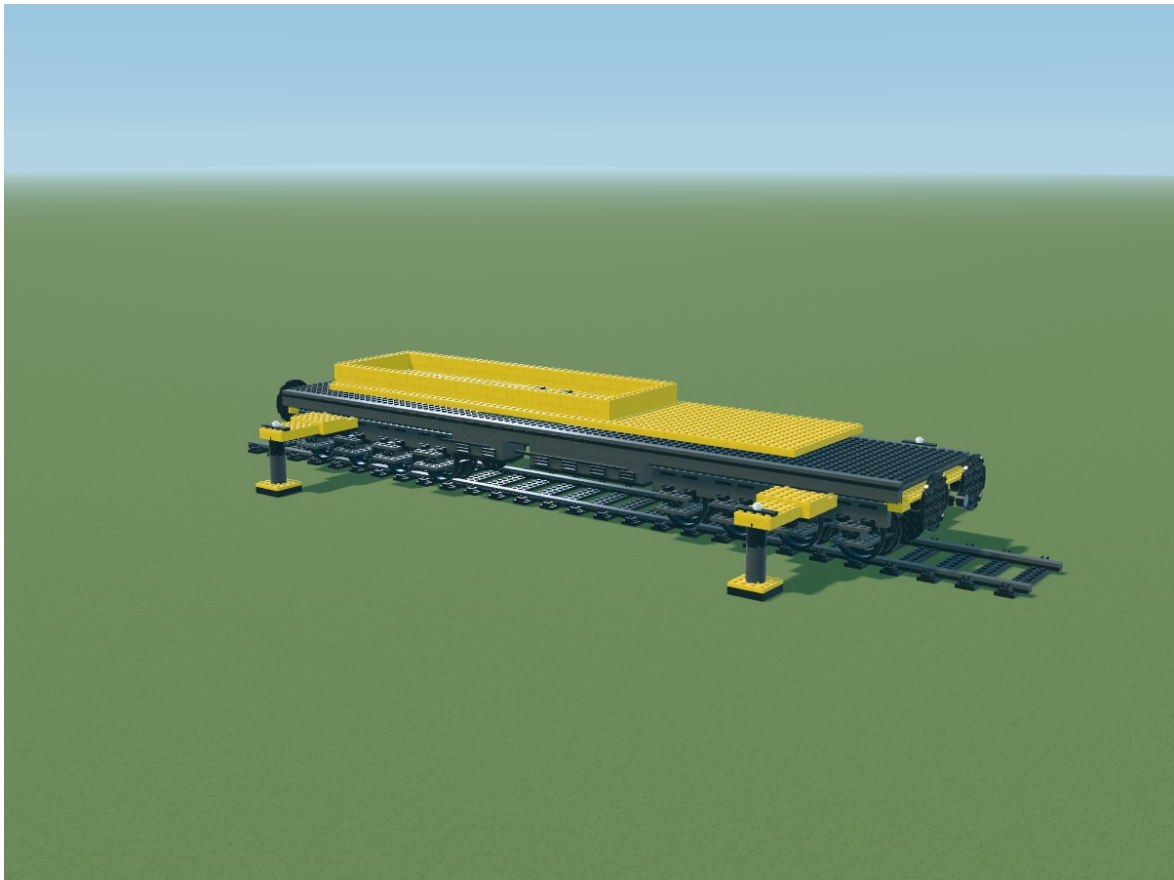
Added parts

Exact reference	Part and color · Step 33	Qty
3020	Plate 2 × 4 Yellow	136

Step 34 / 107 · Engine housing: level 1

Positions belong to the digital model. Connections still require a physical prototype.

138 elements · 1976 cumulative elements



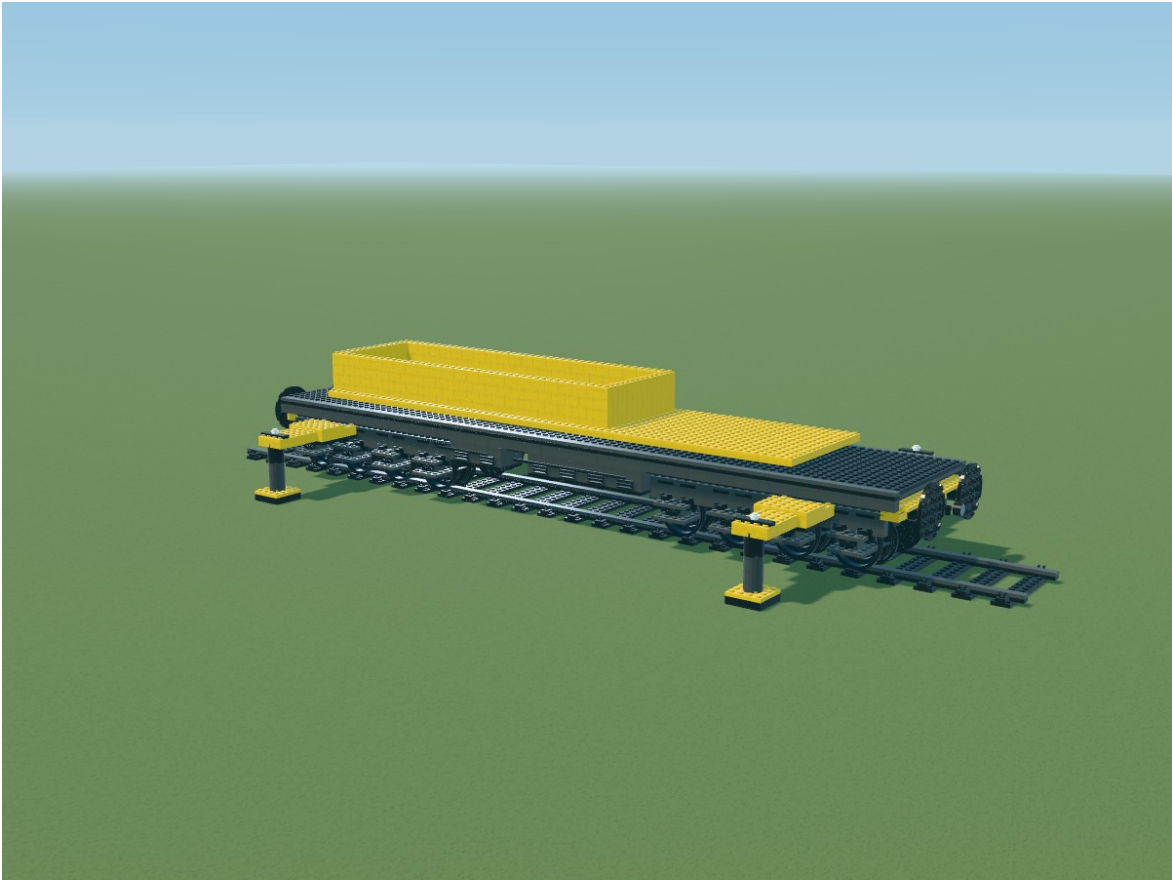
Added parts

Exact reference	Part and color · Step 34	Qty
3004	Brick 1 × 2 Yellow	86
3005	Brick 1 × 1 Yellow	52

Step 35 / 107 · Engine housing: level 2

Positions belong to the digital model. Connections still require a physical prototype.

138 elements · 2114 cumulative elements



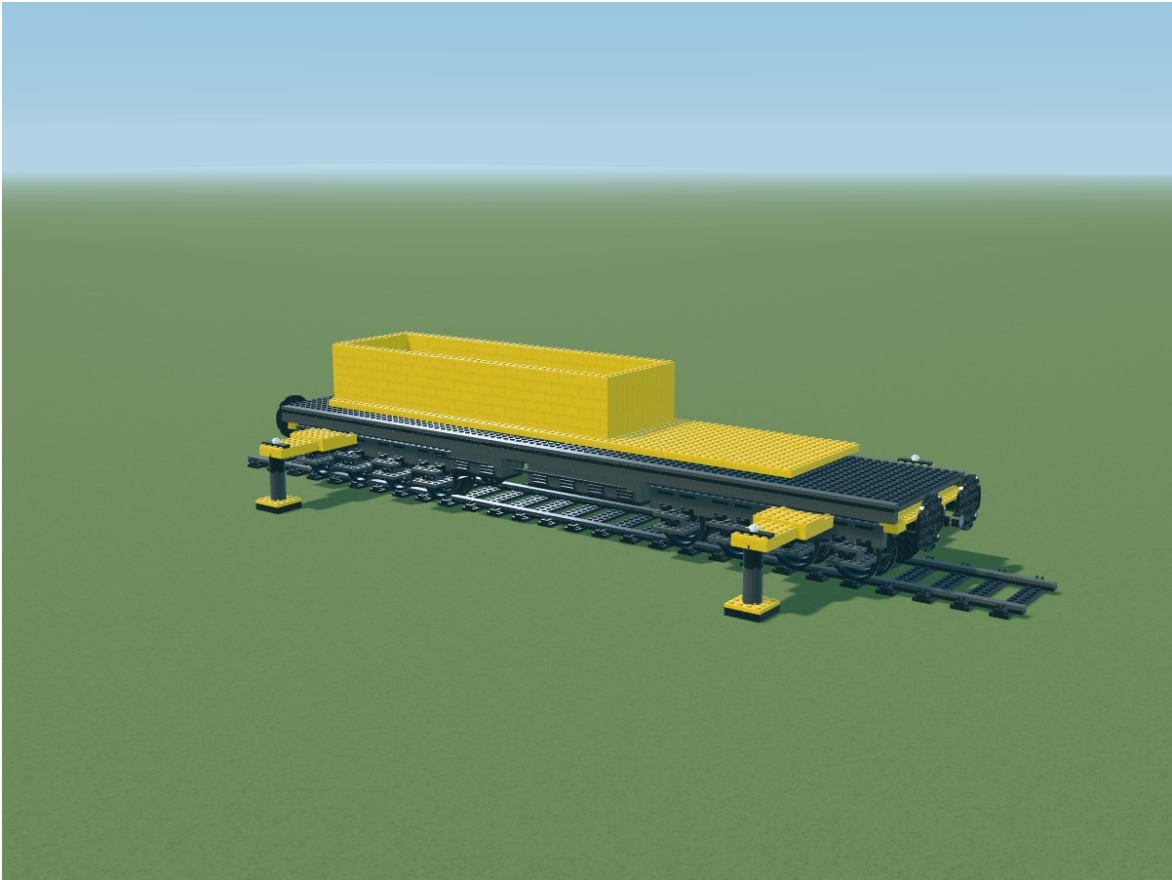
Added parts

Exact reference	Part and color · Step 35	Qty
3004	Brick 1 × 2 Yellow	86
3005	Brick 1 × 1 Yellow	52

Step 36 / 107 · Engine housing: level 3

Positions belong to the digital model. Connections still require a physical prototype.

138 elements · 2252 cumulative elements



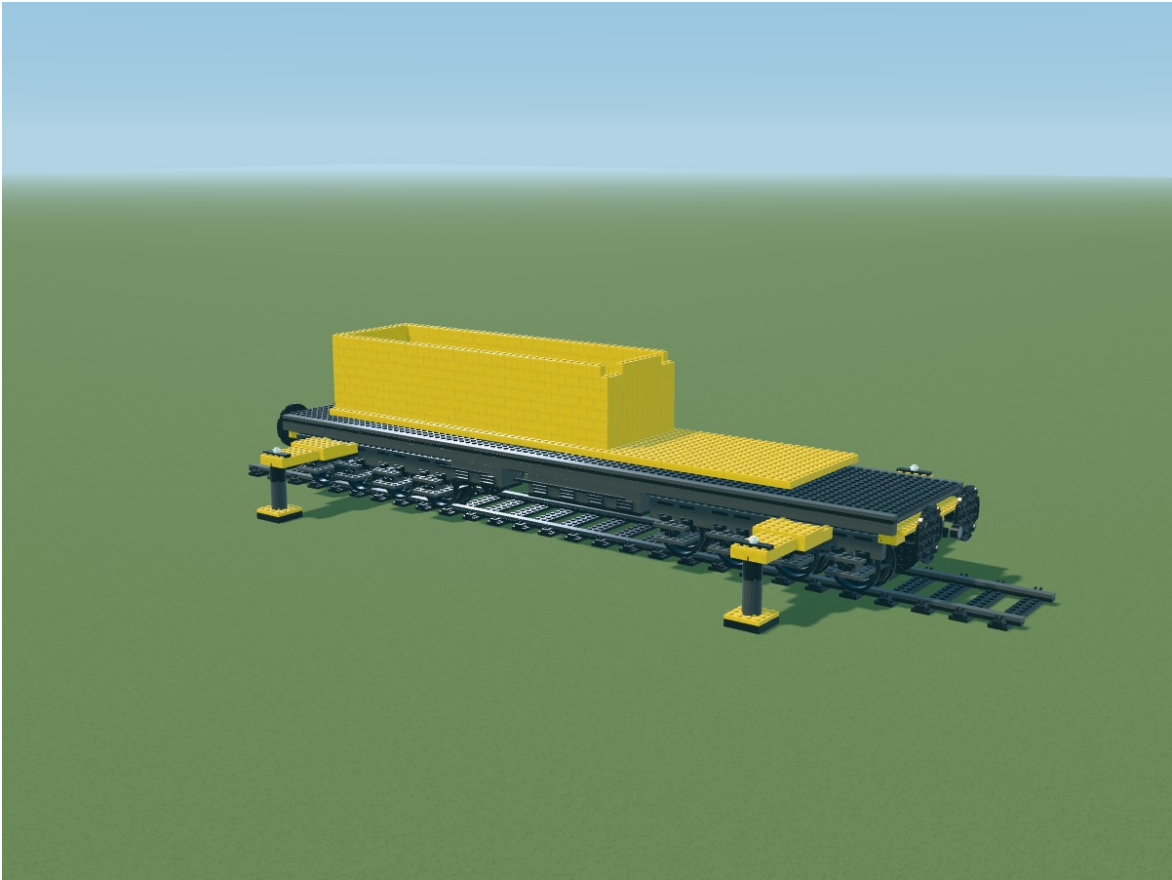
Added parts

Exact reference	Part and color · Step 36	Qty
3004	Brick 1 × 2 Yellow	86
3005	Brick 1 × 1 Yellow	52

Step 37 / 107 · Engine housing: level 4

Positions belong to the digital model. Connections still require a physical prototype.

132 elements · 2384 cumulative elements



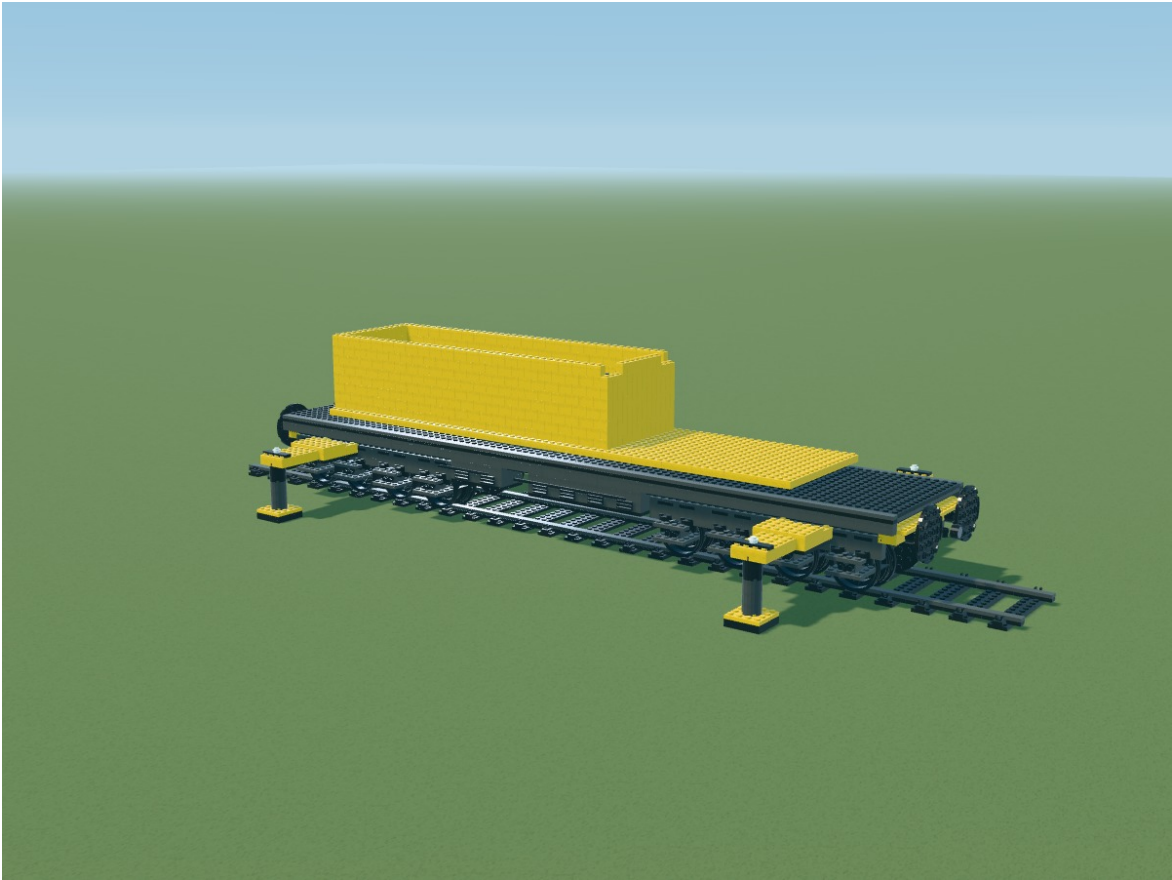
Added parts

Exact reference	Part and color · Step 37	Qty
3004	Brick 1 × 2 Yellow	86
3005	Brick 1 × 1 Yellow	46

Step 38 / 107 · Equipment compartments

Positions belong to the digital model. Connections still require a physical prototype.

72 elements · 2456 cumulative elements



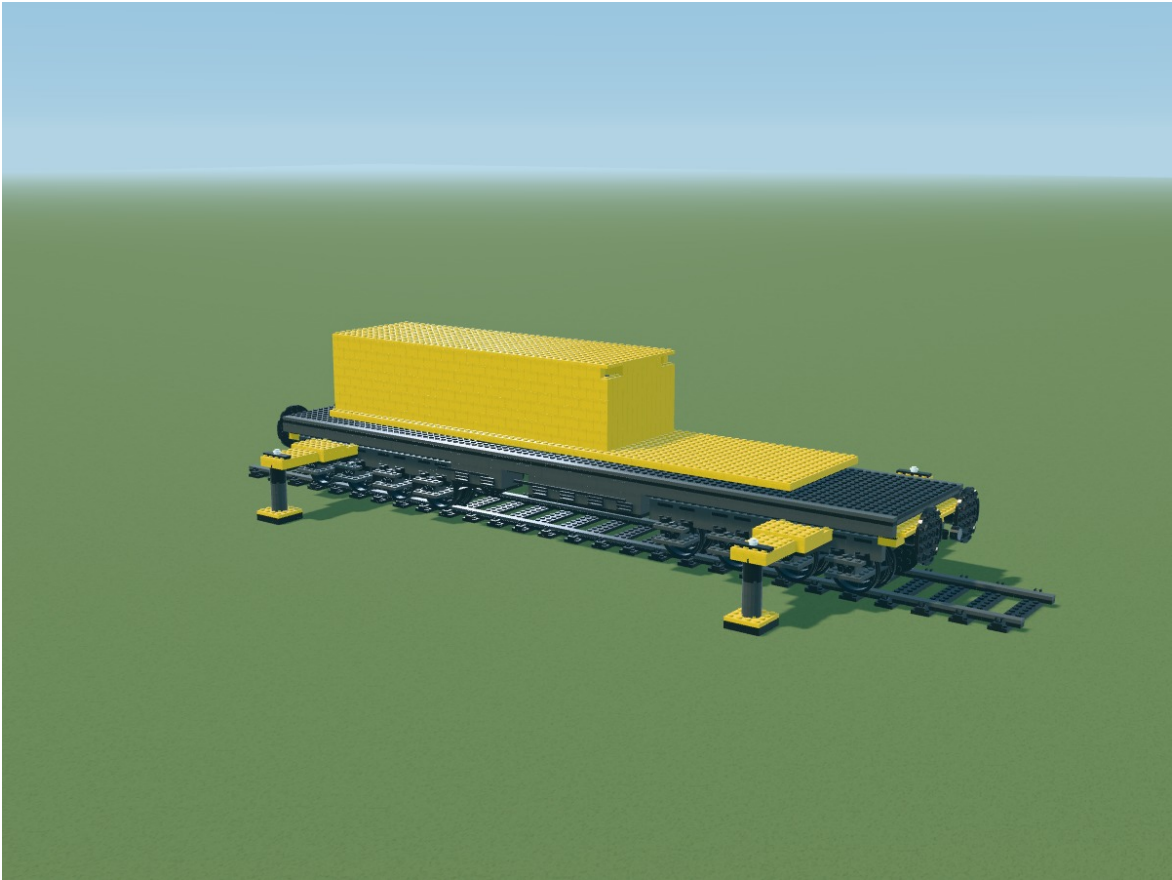
Added parts

Exact reference	Part and color · Step 38	Qty
3001	Brick 2 × 4 Dark Bluish Gray	72

Step 39 / 107 · Engine housing roof

Positions belong to the digital model. Connections still require a physical prototype.

77 elements · 2533 cumulative elements



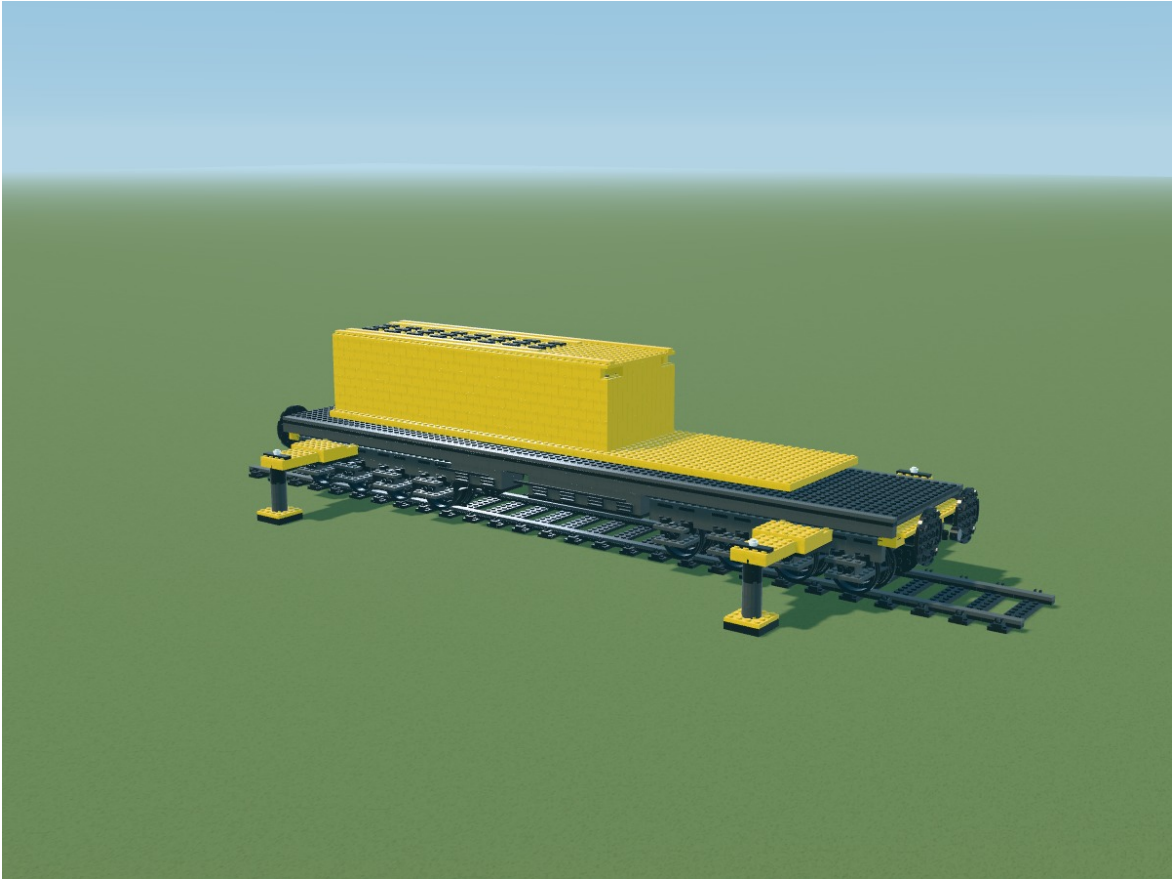
Added parts

Exact reference	Part and color · Step 39	Qty
3020	Plate 2 × 4 Yellow	77

Step 40 / 107 · Roof tiles and ventilation grilles

Positions belong to the digital model. Connections still require a physical prototype.

100 elements · 2633 cumulative elements



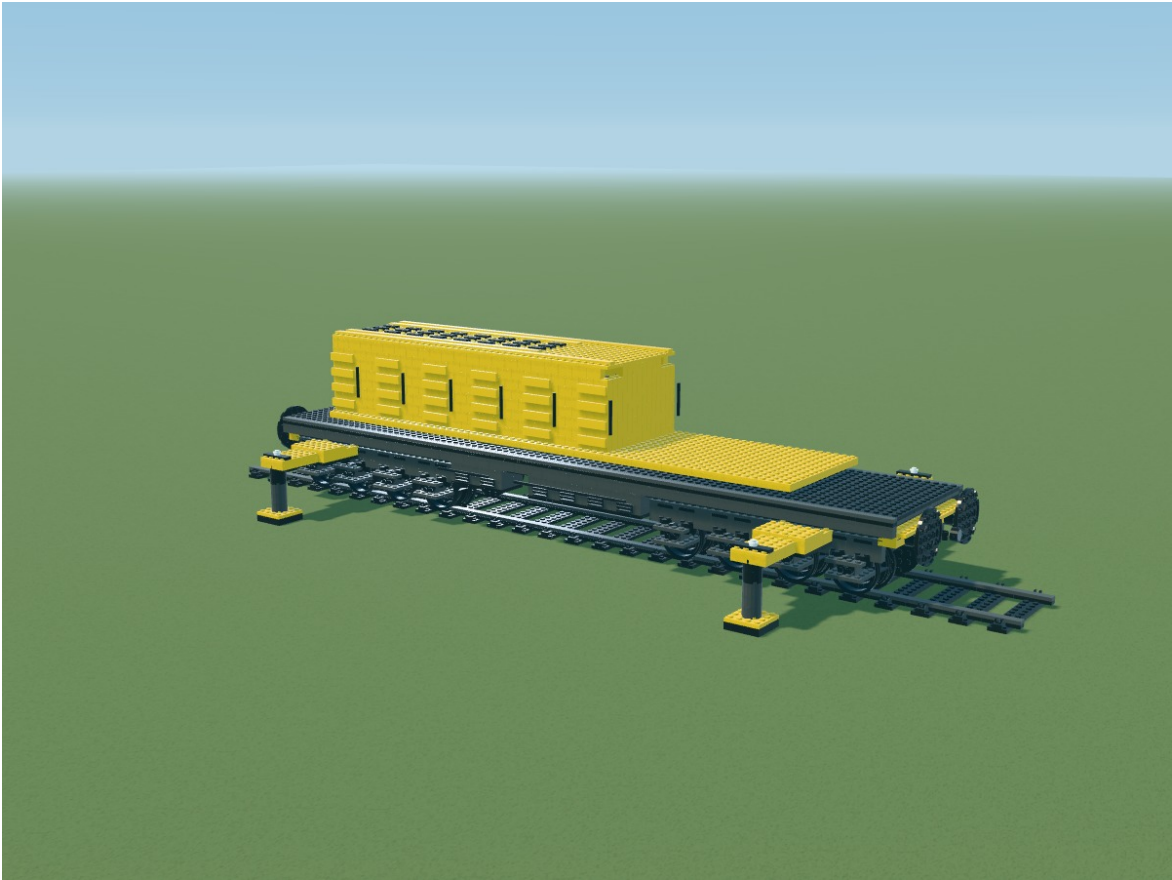
Added parts

Exact reference	Part and color · Step 40	Qty
3069	Tile 1 × 2 Yellow	76
2412b Catalogue ID	Grille tile 1 × 2 with bottom groove Black	24

Step 41 / 107 · Service doors and handles

Positions belong to the digital model. Connections still require a physical prototype.

60 elements · 2693 cumulative elements



Added parts

Exact reference	Part and color · Step 41	Qty
2431	Tile 1 × 4 Yellow	48
30374	Bar 4L Black	12

Step 42 / 107 · Lateral cab base

Positions belong to the digital model. Connections still require a physical prototype.

73 elements · 2766 cumulative elements



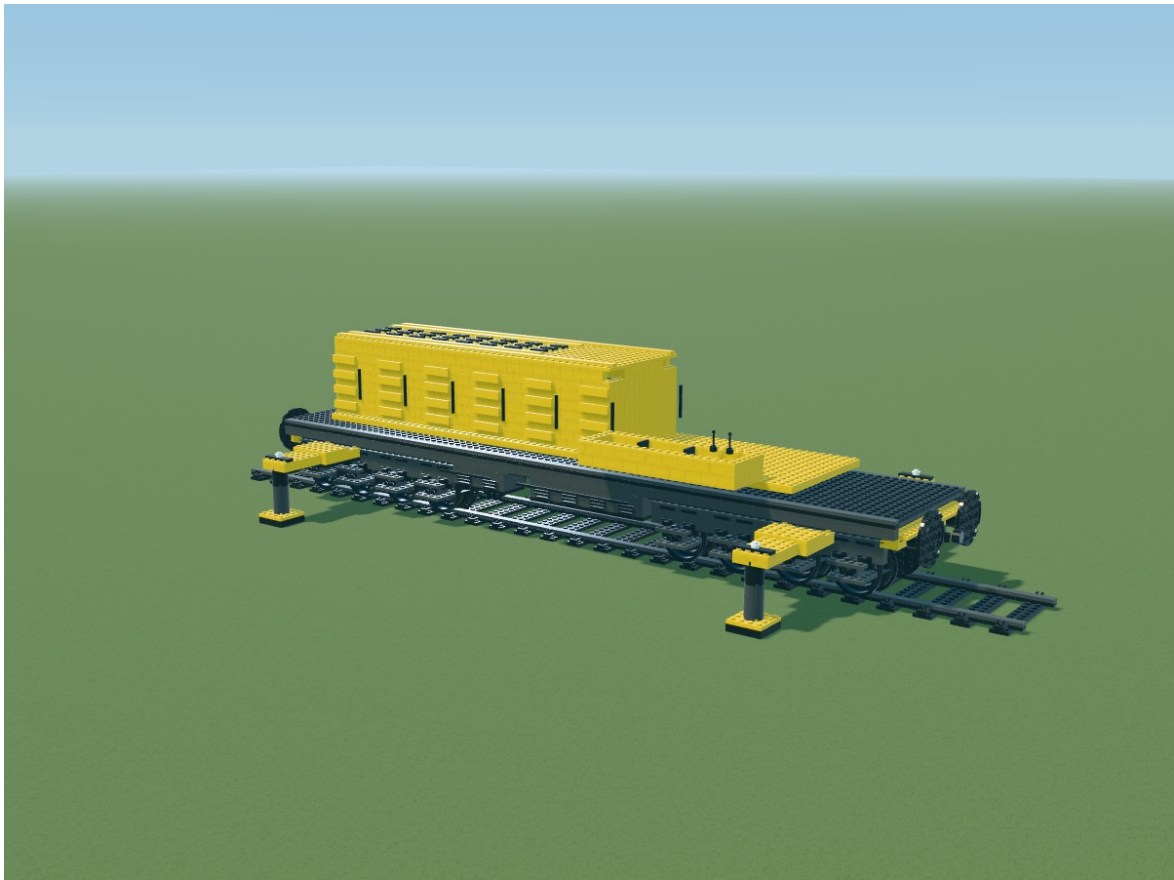
Added parts

Exact reference	Part and color · Step 42	Qty
3020	Plate 2 × 4 Yellow	15
3004	Brick 1 × 2 Yellow	38
3005	Brick 1 × 1 Yellow	20

Step 43 / 107 · Cab dashboard and seats

Positions belong to the digital model. Connections still require a physical prototype.

6 elements · 2772 cumulative elements



Added parts

Exact reference	Part and color · Step 43	Qty
4079	Seat 2 × 2 Black	2
4592	Control lever base Black	2
4593	Control lever Black	2

Step 44 / 107 · Three large cab window panels

Black tiles represent the dark windows. These panels are opaque; their side connections remain to be tested.

36 elements · 2808 cumulative elements



Added parts

Exact reference	Part and color · Step 44	Qty
3069	Tile 1 × 2 Black	36

Step 45 / 107 · Slender cab pillars

Positions belong to the digital model. Connections still require a physical prototype.

60 elements · 2868 cumulative elements



Added parts

Exact reference	Part and color · Step 45	Qty
3005	Brick 1 × 1 Yellow	60

Step 46 / 107 · Sloped front windscreen

Positions belong to the digital model. Connections still require a physical prototype.

22 elements · 2890 cumulative elements



Added parts

Exact reference	Part and color · Step 46	Qty
3005	Brick 1 × 1 Yellow	10
3069	Tile 1 × 2 Black	12

Step 47 / 107 · Cab roof

Positions belong to the digital model. Connections still require a physical prototype.

75 elements · 2965 cumulative elements



Added parts

Exact reference	Part and color · Step 47	Qty
3020	Plate 2 × 4 Yellow	15
3069	Tile 1 × 2 Yellow	60

Step 48 / 107 · Counterweight carrier

Positions belong to the digital model. Connections still require a physical prototype.

16 elements · 2981 cumulative elements



Added parts

Exact reference	Part and color · Step 48	Qty
3001	Brick 2 × 4 Black	16

Step 49 / 107 · Layered counterweight

Positions belong to the digital model. Connections still require a physical prototype.

72 elements · 3053 cumulative elements



Added parts

Exact reference	Part and color · Step 49	Qty
3001	Brick 2 × 4 Black	24
3001	Brick 2 × 4 Yellow	40
3031	Plate 4 × 4 Yellow	8

Step 50 / 107 · Boom pivot cheeks

Positions belong to the digital model. Connections still require a physical prototype.

21 elements · 3074 cumulative elements



Added parts

Exact reference	Part and color · Step 50	Qty
3701	Technic brick 1 × 4 with holes Yellow	18
50451	Technic axle 16L Black	1
3713	Technic bush Light Bluish Gray	2

Step 51 / 107 · Main boom: lower skin

Positions belong to the digital model. Connections still require a physical prototype.

52 elements · 3126 cumulative elements



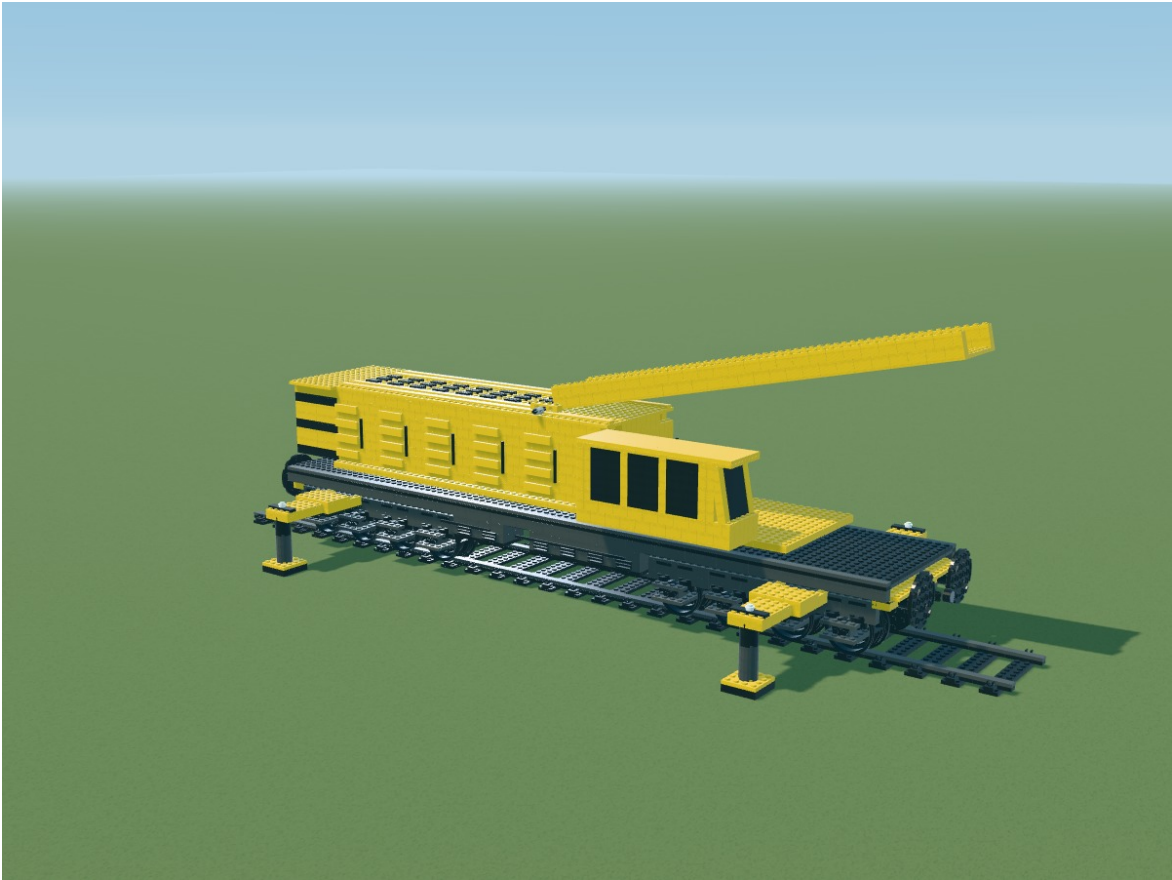
Added parts

Exact reference	Part and color · Step 51	Qty
3020	Plate 2 × 4 Yellow	52

Step 52 / 107 · Main boom: side walls 1

Positions belong to the digital model. Connections still require a physical prototype.

106 elements · 3232 cumulative elements



Added parts

Exact reference	Part and color · Step 52	Qty
3004	Brick 1 × 2 Yellow	102
3005	Brick 1 × 1 Yellow	4

Step 53 / 107 · Main boom: side walls 2

Positions belong to the digital model. Connections still require a physical prototype.

106 elements · 3338 cumulative elements



Added parts

Exact reference	Part and color · Step 53	Qty
3004	Brick 1 × 2 Yellow	102
3005	Brick 1 × 1 Yellow	4

Step 54 / 107 · Main boom: side walls 3

Positions belong to the digital model. Connections still require a physical prototype.

52 elements · 3390 cumulative elements



Added parts

Exact reference	Part and color · Step 54	Qty
3004	Brick 1 × 2 Yellow	52

Step 55 / 107 · Main boom: upper skin

Positions belong to the digital model. Connections still require a physical prototype.

52 elements · 3442 cumulative elements



Added parts

Exact reference	Part and color · Step 55	Qty
3020	Plate 2 × 4 Yellow	52

Step 56 / 107 · Main boom: smooth surfaces

Positions belong to the digital model. Connections still require a physical prototype.

208 elements · 3650 cumulative elements



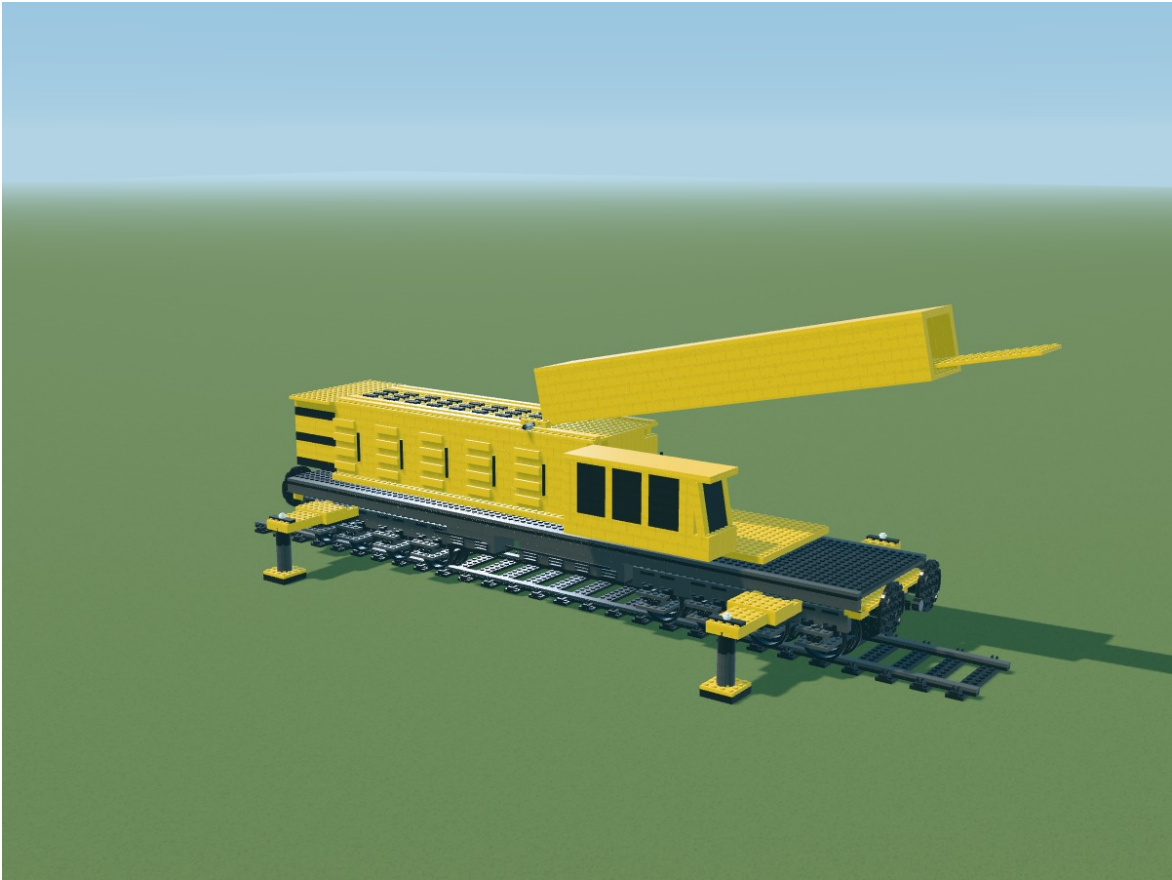
Added parts

Exact reference	Part and color · Step 56	Qty
3069	Tile 1 × 2 Yellow	208

Step 57 / 107 · Middle section: lower skin

Positions belong to the digital model. Connections still require a physical prototype.

36 elements · 3686 cumulative elements



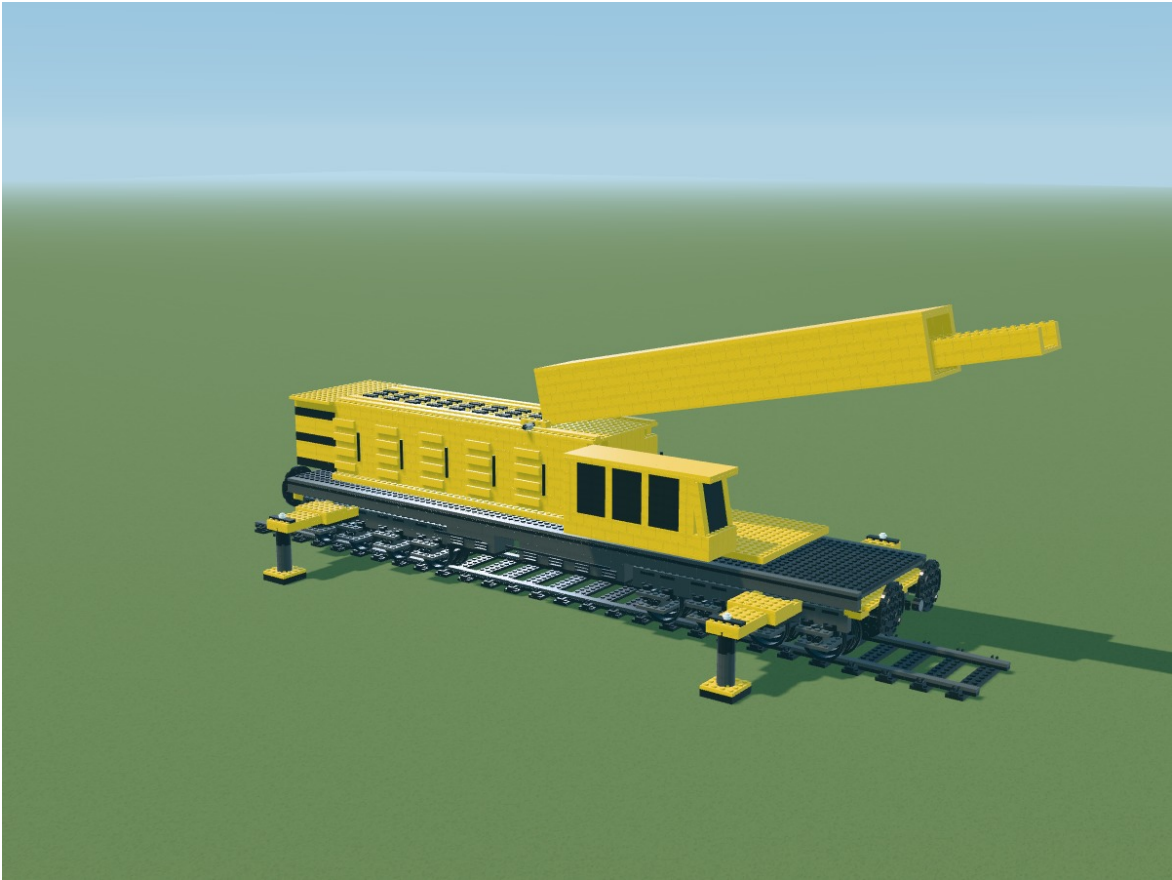
Added parts

Exact reference	Part and color · Step 57	Qty
3020	Plate 2 × 4 Yellow	36

Step 58 / 107 · Middle section: side walls 1

Positions belong to the digital model. Connections still require a physical prototype.

98 elements · 3784 cumulative elements



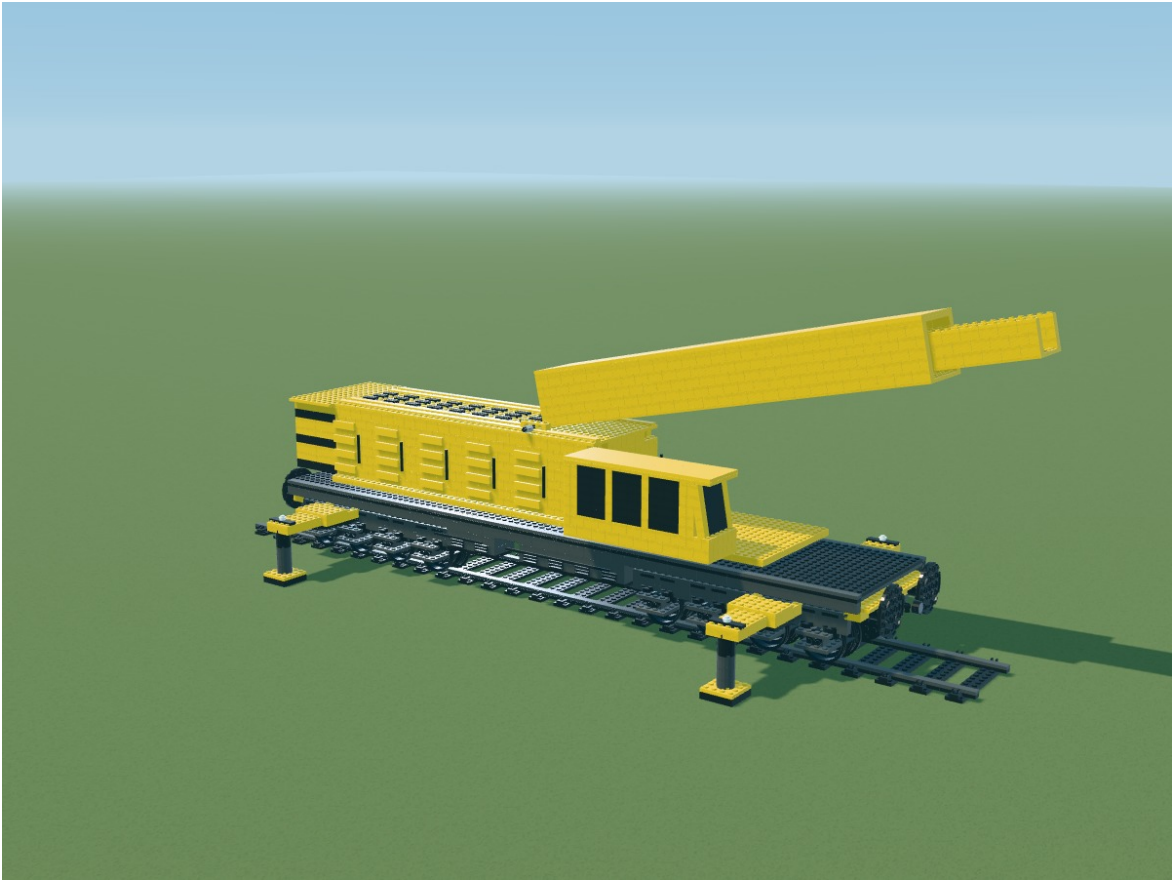
Added parts

Exact reference	Part and color · Step 58	Qty
3004	Brick 1 × 2 Yellow	94
3005	Brick 1 × 1 Yellow	4

Step 59 / 107 · Middle section: side walls 2

Positions belong to the digital model. Connections still require a physical prototype.

48 elements · 3832 cumulative elements



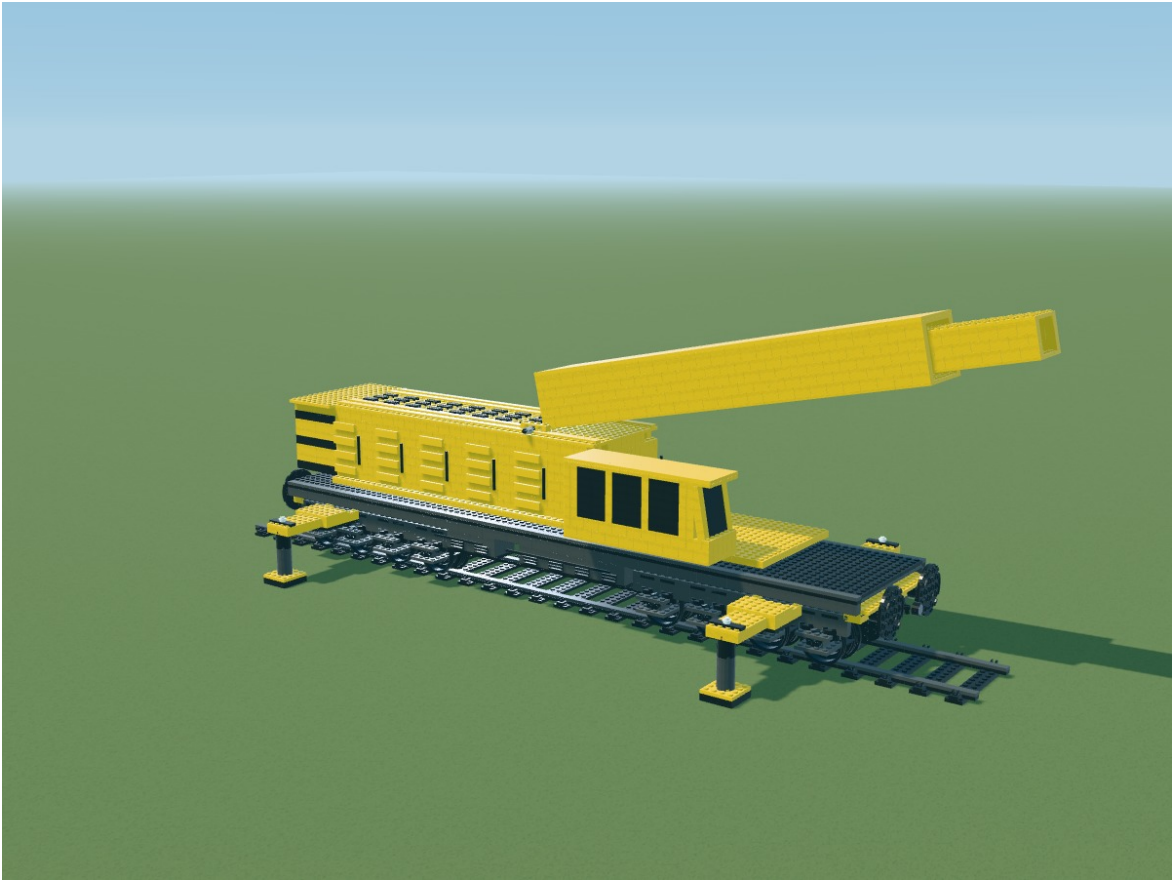
Added parts

Exact reference	Part and color · Step 59	Qty
3004	Brick 1 × 2 Yellow	48

Step 60 / 107 · Middle section: upper skin

Positions belong to the digital model. Connections still require a physical prototype.

36 elements · 3868 cumulative elements



Added parts

Exact reference	Part and color · Step 60	Qty
3020	Plate 2 × 4 Yellow	36

Step 61 / 107 · Middle section: smooth surfaces

Positions belong to the digital model. Connections still require a physical prototype.

144 elements · 4012 cumulative elements



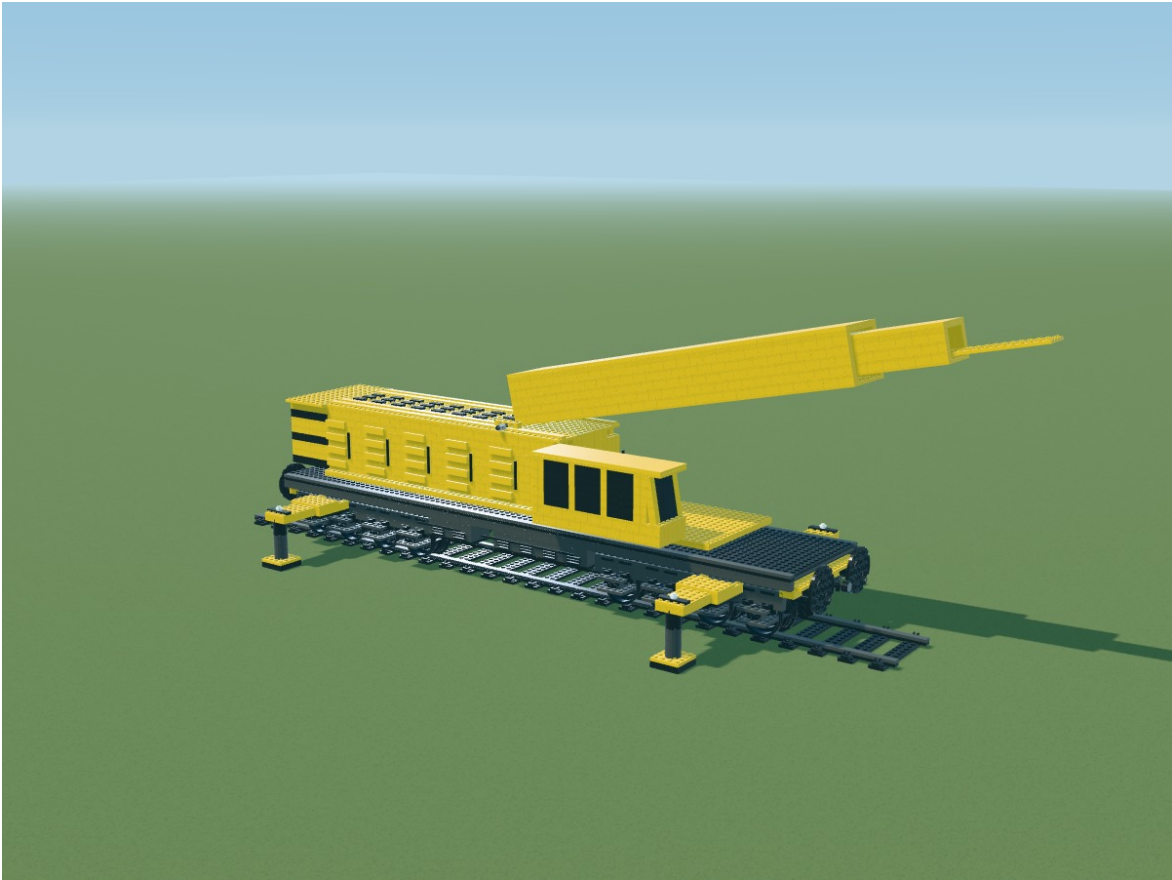
Added parts

Exact reference	Part and color · Step 61	Qty
3069	Tile 1 × 2 Yellow	144

Step 62 / 107 · Inner section: lower skin

Positions belong to the digital model. Connections still require a physical prototype.

22 elements · 4034 cumulative elements



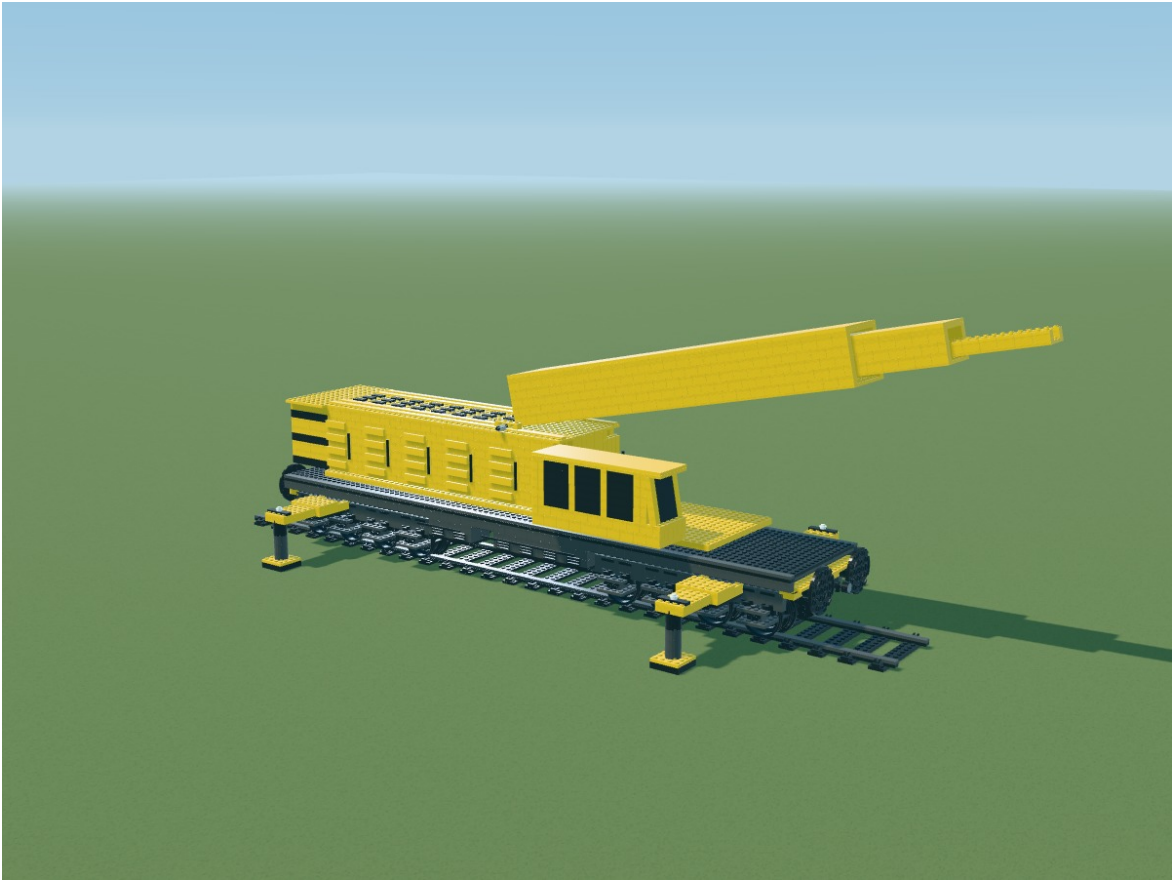
Added parts

Exact reference	Part and color · Step 62	Qty
3020	Plate 2 × 4 Yellow	22

Step 63 / 107 · Inner section: side walls 1

Positions belong to the digital model. Connections still require a physical prototype.

44 elements · 4078 cumulative elements



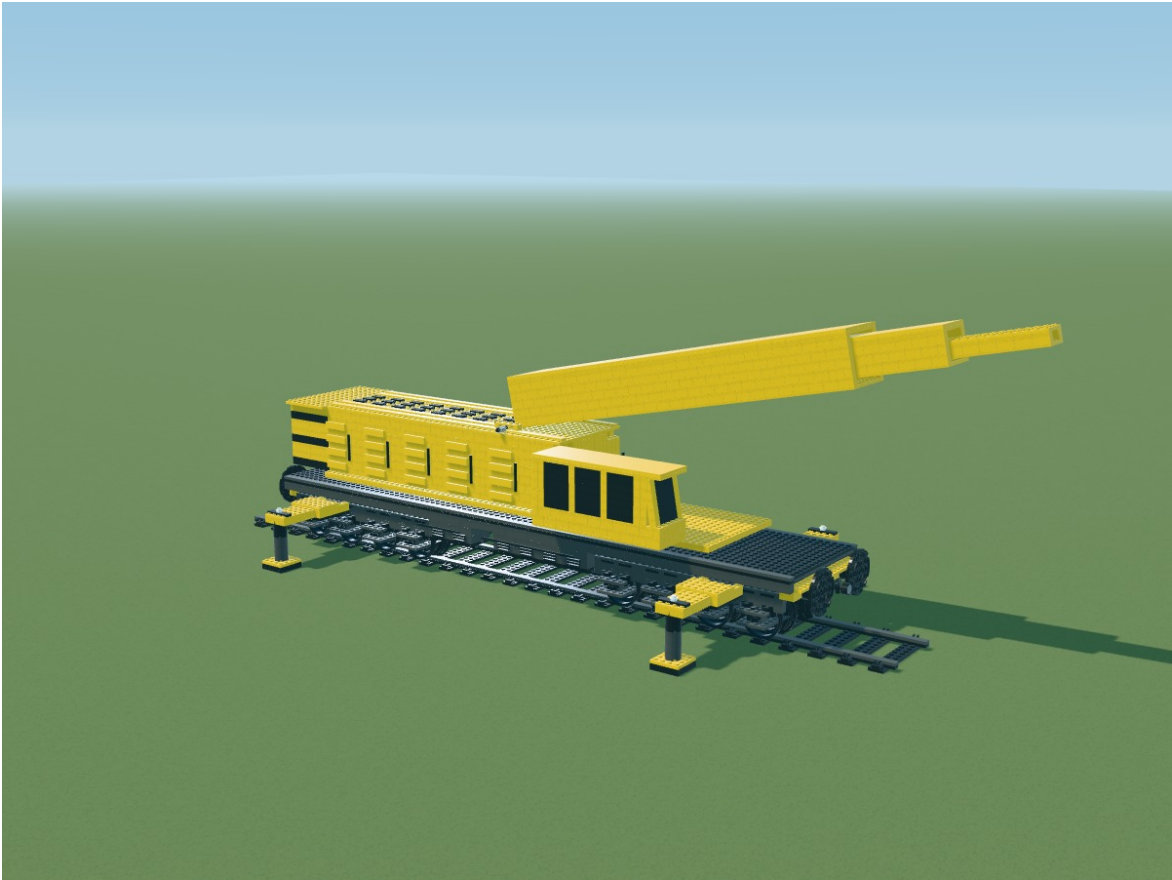
Added parts

Exact reference	Part and color · Step 63	Qty
3004	Brick 1 × 2 Yellow	44

Step 64 / 107 · Inner section: upper skin

Positions belong to the digital model. Connections still require a physical prototype.

22 elements · 4100 cumulative elements



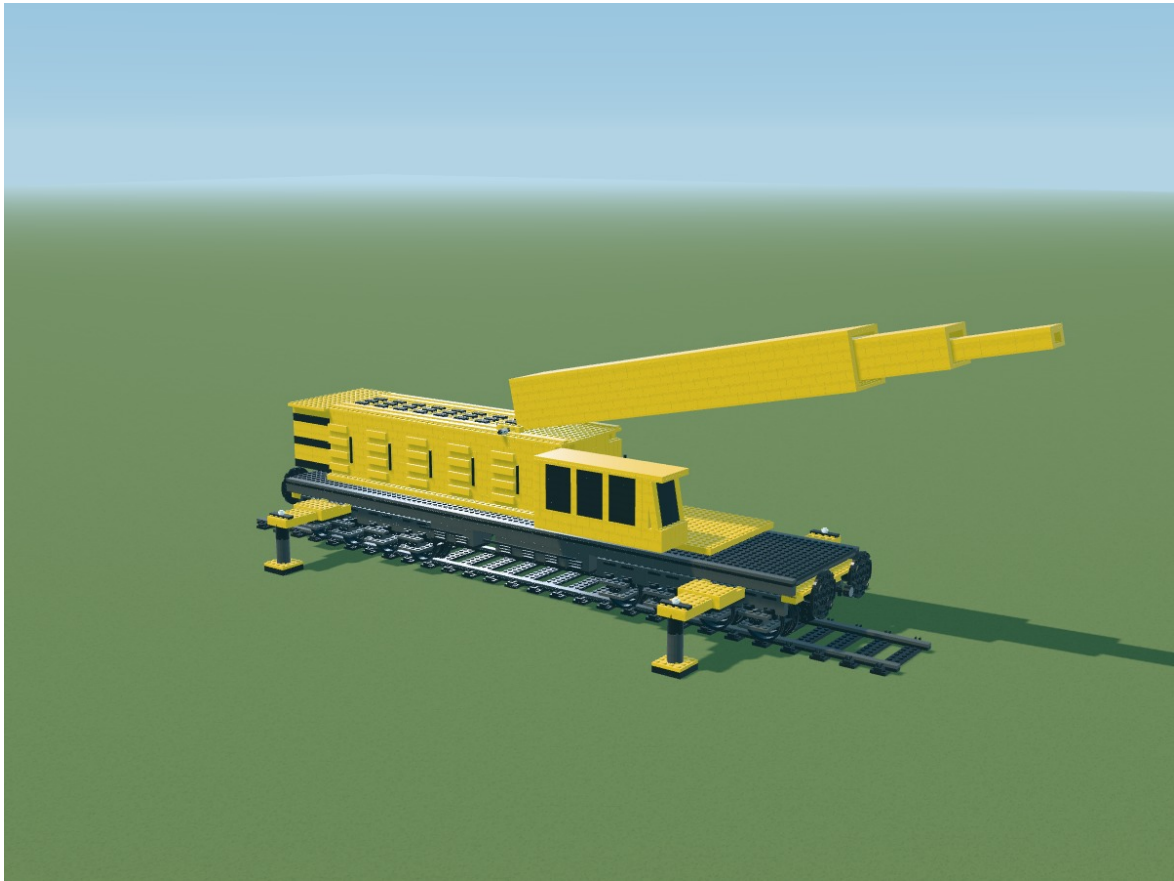
Added parts

Exact reference	Part and color · Step 64	Qty
3020	Plate 2 × 4 Yellow	22

Step 65 / 107 · Inner section: smooth surfaces

Positions belong to the digital model. Connections still require a physical prototype.

88 elements · 4188 cumulative elements



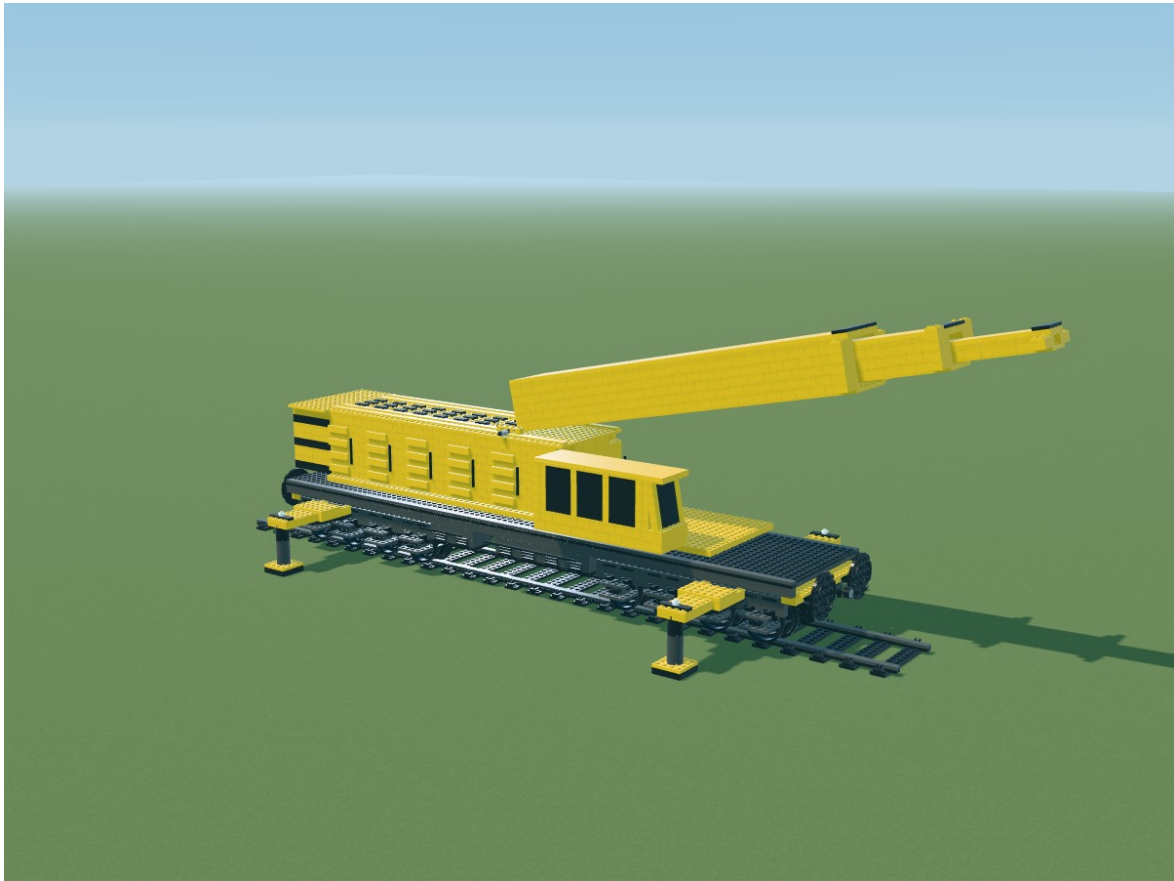
Added parts

Exact reference	Part and color · Step 65	Qty
3069	Tile 1 × 2 Yellow	88

Step 66 / 107 · Telescopic collars and guides

Positions belong to the digital model. Connections still require a physical prototype.

58 elements · 4246 cumulative elements



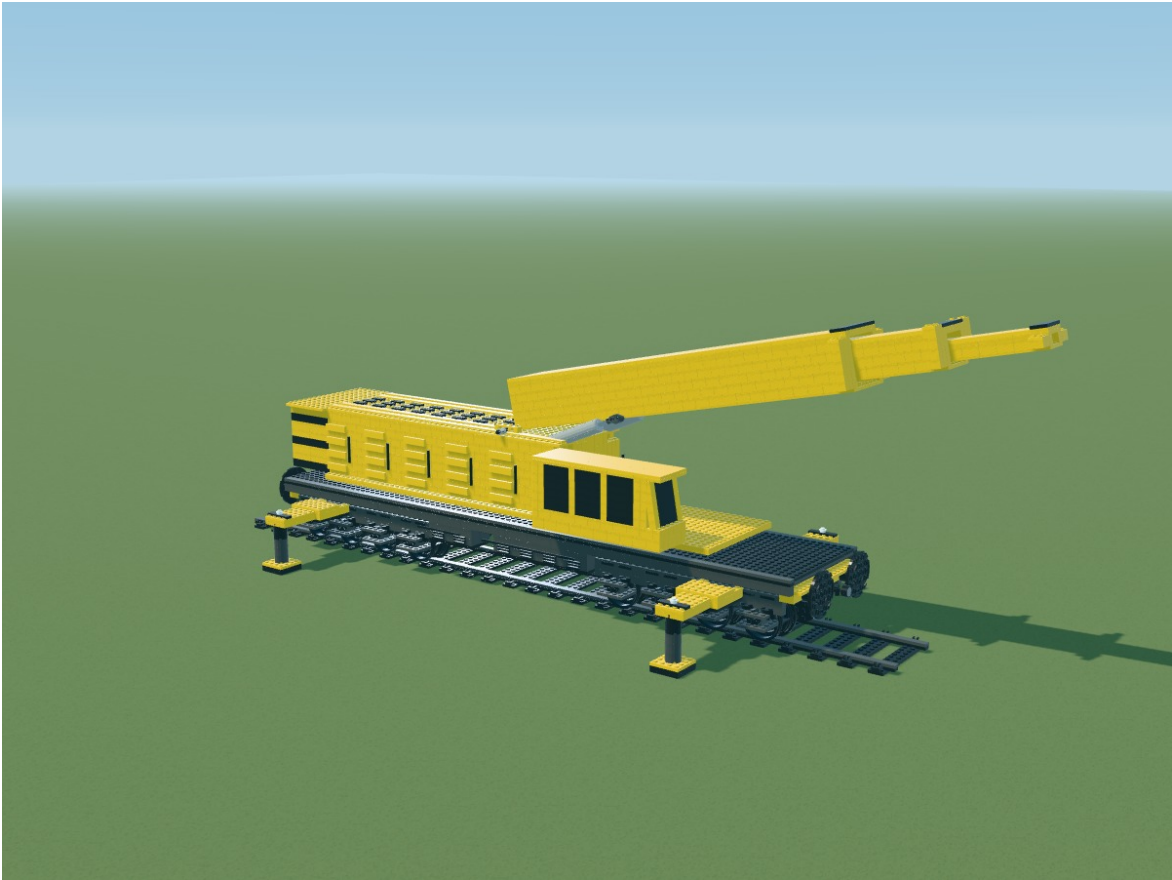
Added parts

Exact reference	Part and color · Step 66	Qty
3004	Brick 1 × 2 Yellow	20
3005	Brick 1 × 1 Yellow	20
3069	Tile 1 × 2 Black	18

Step 67 / 107 · Twin lifting actuators

Positions belong to the digital model. Connections still require a physical prototype.

6 elements · 4252 cumulative elements



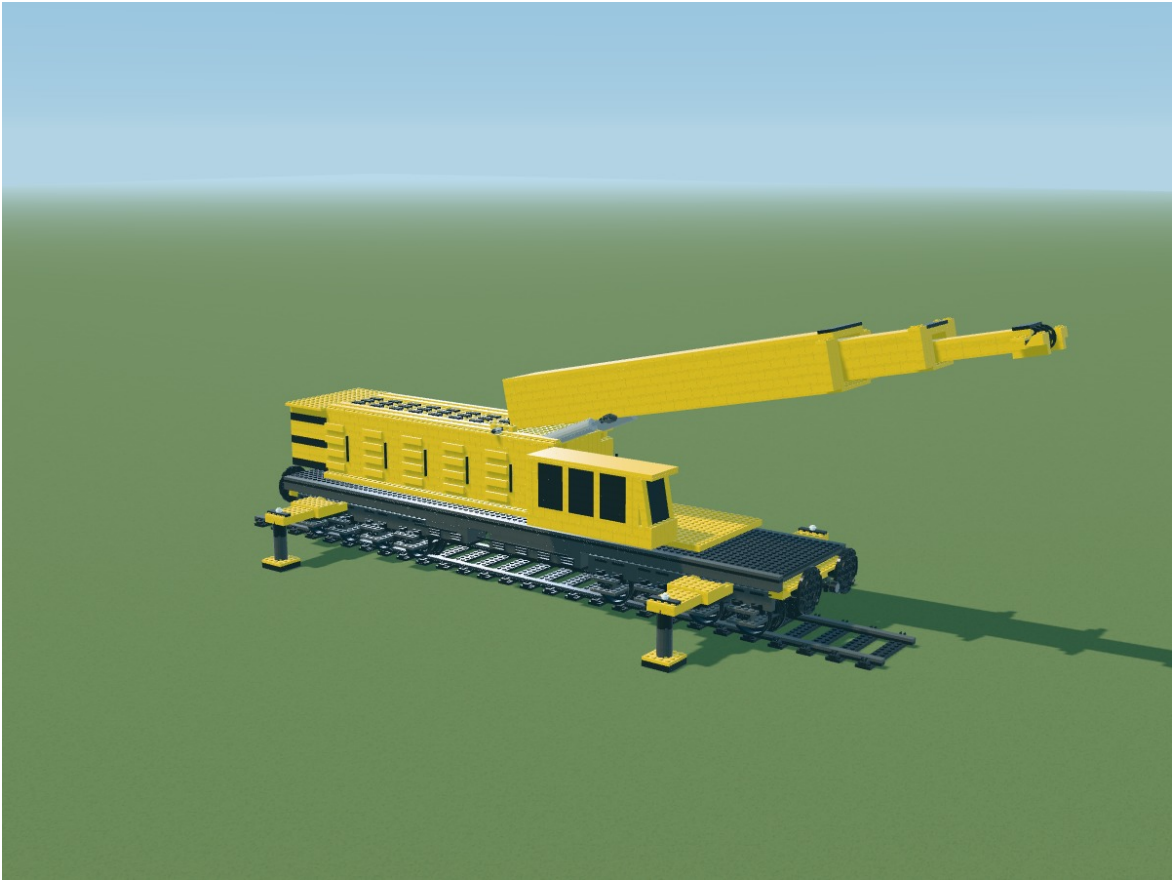
Added parts

Exact reference	Part and color · Step 67	Qty
40918c01 Catalogue ID	Long Technic linear actuator assembly Light Bluish Gray	2
2780	Technic friction pin 2L Black	4

Step 68 / 107 · Boom head sheaves

Positions belong to the digital model. Connections still require a physical prototype.

8 elements · 4260 cumulative elements



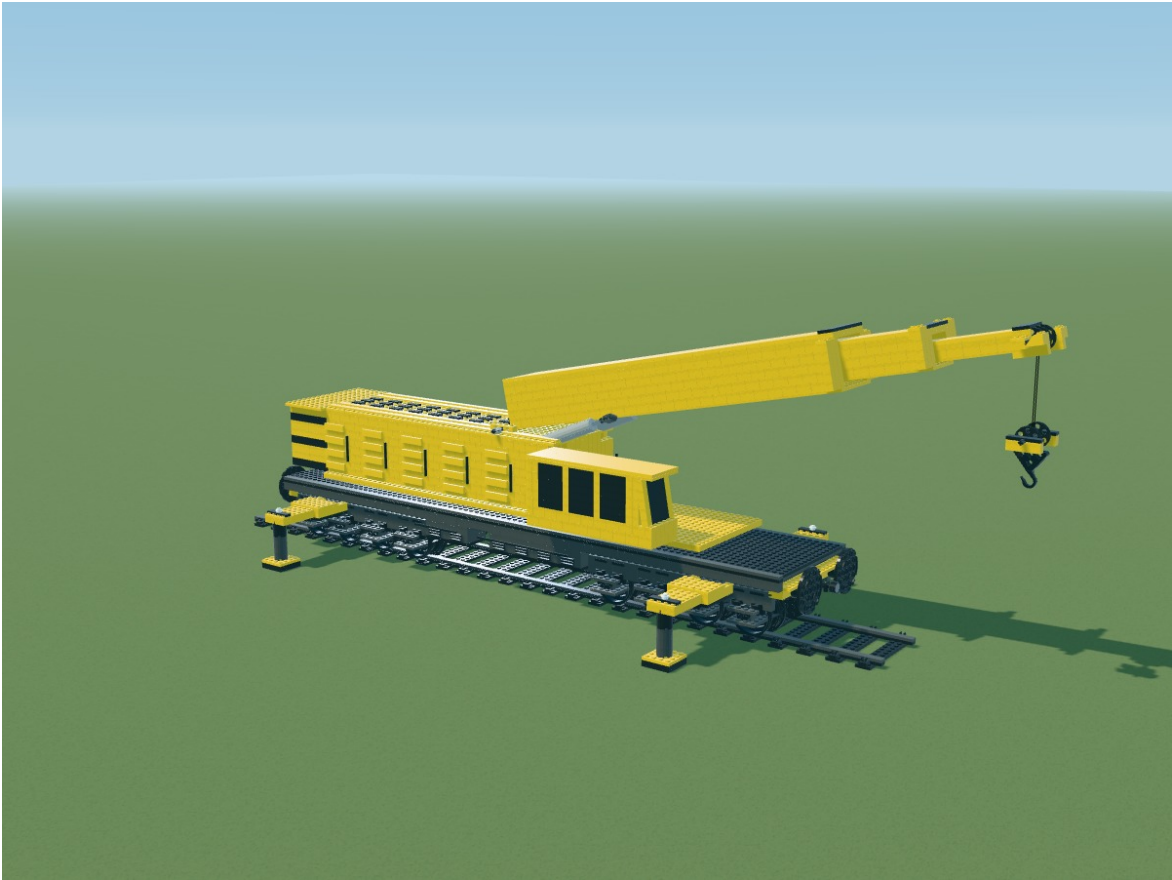
Added parts

Exact reference	Part and color · Step 68	Qty
4185	Technic pulley Ø 24 mm Black	3
3010	Brick 1 × 4 Yellow	2
3039	Slope 45° 2 × 2 Yellow	2
3707	Technic axle 8L Black	1

Step 69 / 107 · Hook block

Positions belong to the digital model. Connections still require a physical prototype.

8 elements · 4268 cumulative elements



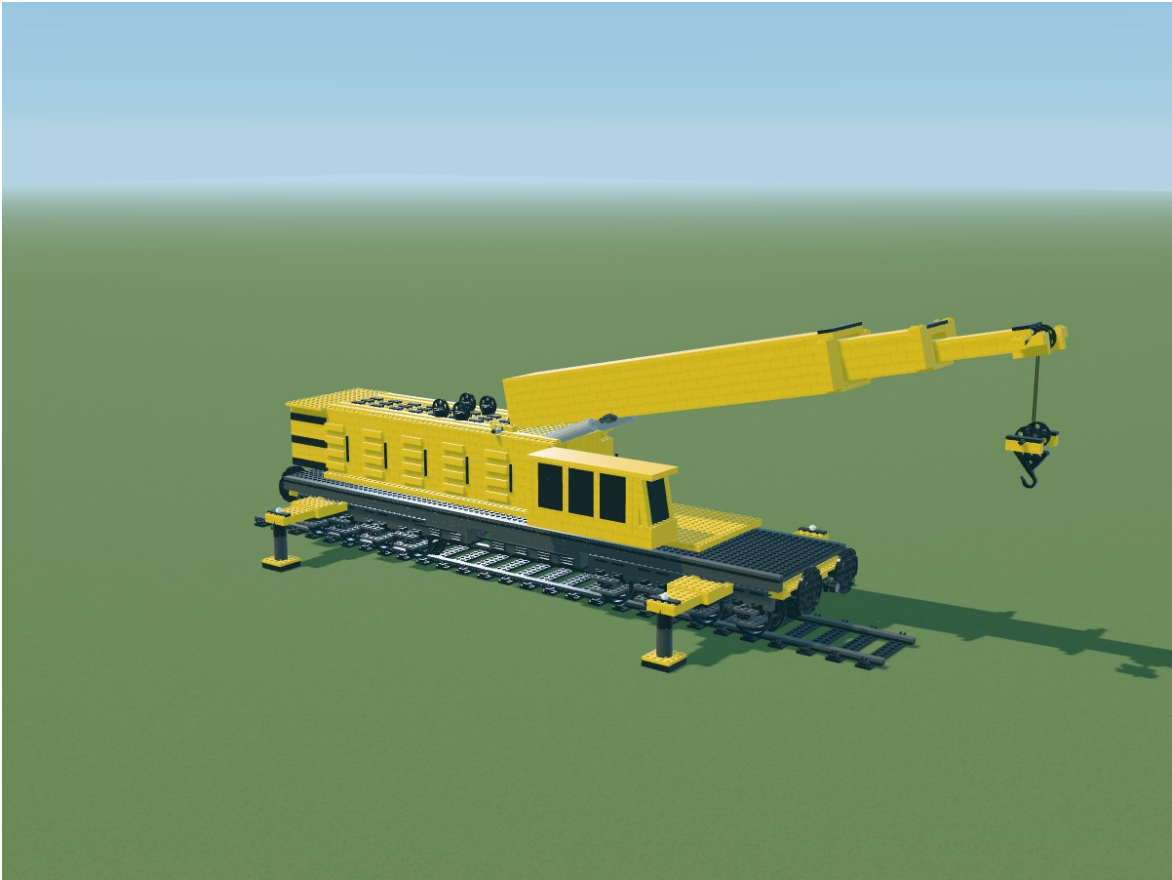
Added parts

Exact reference	Part and color · Step 69	Qty
4185	Technic pulley Ø 24 mm Black	2
3010	Brick 1 × 4 Yellow	2
2431	Tile 1 × 4 Black	2
70644	Large metal Technic hook Black	1
3707	Technic axle 8L Black	1

Step 70 / 107 · Winch and drums

Positions belong to the digital model. Connections still require a physical prototype.

8 elements · 4276 cumulative elements



Added parts

Exact reference	Part and color · Step 70	Qty
4185	Technic pulley Ø 24 mm Black	4
3941	Round brick 2 × 2 with axle hole Black	4

Step 71 / 107 · Walkways and safety rails

Positions belong to the digital model. Connections still require a physical prototype.

16 elements · 4292 cumulative elements



Added parts

Exact reference	Part and color · Step 71	Qty
2486	Railing 1 × 8 × 2 Yellow	16

Step 72 / 107 · Pipes and hydraulic details

Positions belong to the digital model. Connections still require a physical prototype.

100 elements · 4392 cumulative elements



Added parts

Exact reference	Part and color · Step 72	Qty
30374	Bar 4L Black	62
15712	Modified tile 1 × 1 with open clip Black	38

Step 73 / 107 · Access steps

Positions belong to the digital model. Connections still require a physical prototype.

32 elements · 4424 cumulative elements



Added parts

Exact reference	Part and color · Step 73	Qty
2412b Catalogue ID	Grille tile 1 × 2 with bottom groove Black	16
30374	Bar 4L Black	16

Step 74 / 107 · Walkway surfacing

Positions belong to the digital model. Connections still require a physical prototype.

212 elements · 4636 cumulative elements



Added parts

Exact reference	Part and color · Step 74	Qty
3069	Tile 1 × 2 Yellow	212

Step 75 / 107 · Deck access hatches and lockers

Positions belong to the digital model. Connections still require a physical prototype.

60 elements · 4696 cumulative elements



Added parts

Exact reference	Part and color · Step 75	Qty
3004	Brick 1 × 2 Yellow	20
3005	Brick 1 × 1 Yellow	32
3020	Plate 2 × 4 Yellow	4
2431	Tile 1 × 4 Yellow	4

Step 76 / 107 · End platform surfacing

Positions belong to the digital model. Connections still require a physical prototype.

112 elements · 4808 cumulative elements



Added parts

Exact reference	Part and color · Step 76	Qty
3069	Tile 1 × 2 Black	112

Step 77 / 107 · Lights, handles and finishing details

Positions belong to the digital model. Connections still require a physical prototype.

14 elements · 4822 cumulative elements



Added parts

Exact reference	Part and color · Step 77	Qty
3024	Plate 1 × 1 Red	4
4073	Round plate 1 × 1 White	8
4073	Round plate 1 × 1 Trans-Orange	2

Step 78 / 107 · Convoy: extra sleepers

Extend both ends of the existing track to 104 studs from the centre. Sleepers use actual-size LEGO plates.

From here, the steps build the transport additions. The cumulative count includes the crane already assembled; moving the counterweight does not add copies of its pieces.

72 elements · 4894 cumulative elements



Added parts

Exact reference	Part and color · Step 78	Qty
3020	Plate 2 × 4 Black	72

Step 79 / 107 · Convoy: rail beds

Two rows of plates support the running surfaces, aligned with the central track.

48 elements · 4942 cumulative elements



Added parts

Exact reference	Part and color · Step 79	Qty
3710	Plate 1 × 4 Black	48

Step 80 / 107 · Convoy: running surfaces

Cover the rail beds with tiles. This display track is not a tested railway system.

48 elements · 4990 cumulative elements



Added parts

Exact reference	Part and color · Step 80	Qty
2431	Tile 1 × 4 Dark Bluish Gray	48

Step 81 / 107 · Convoy: track fastenings

Add clips on both sides of the rails, continuing the central track pattern.

48 elements · 5038 cumulative elements



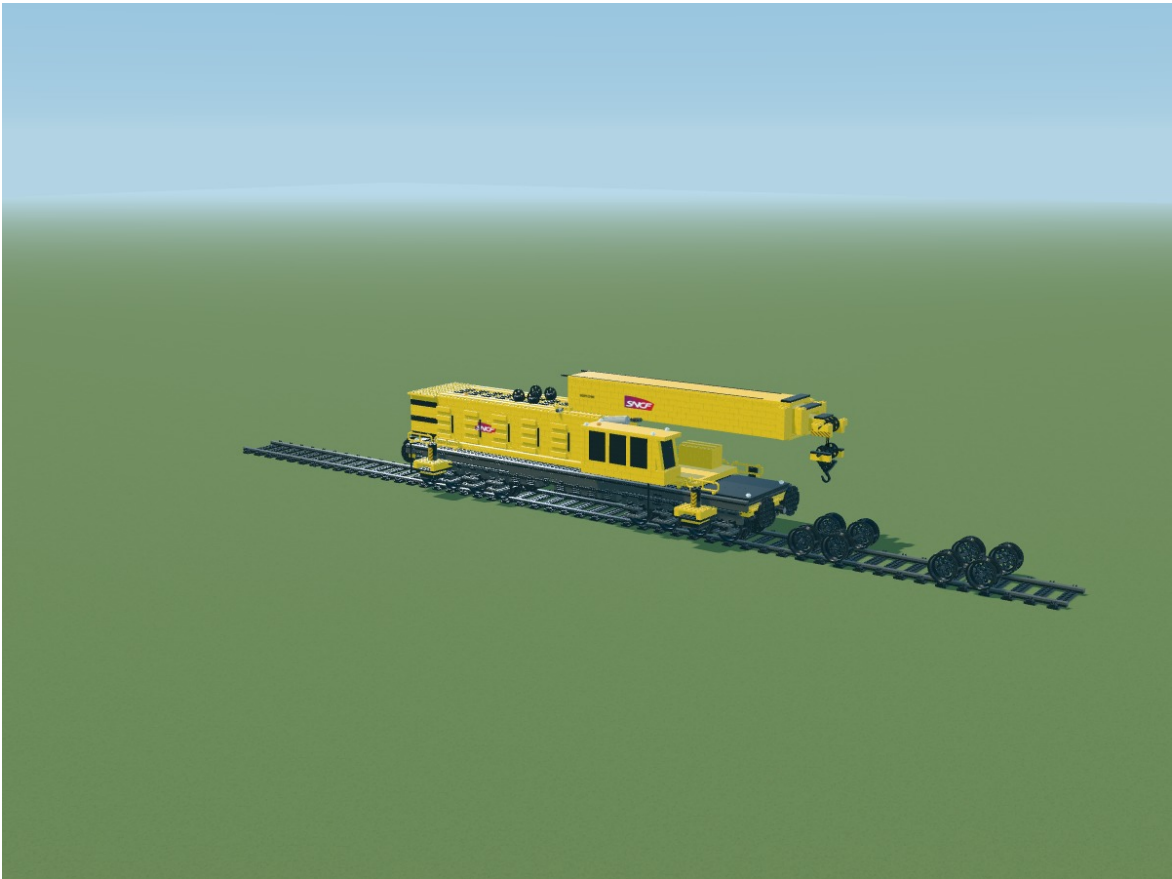
Added parts

Exact reference	Part and color · Step 81	Qty
15712	Modified tile 1 × 1 with open clip Black	48

Step 82 / 107 · Boom-support wagon: wheels and axles

Each wagon has two two-axle bogies. Wheels 56908 retain their 43.2 mm diameter; 16L axles run across the wagon.

12 elements · 5050 cumulative elements



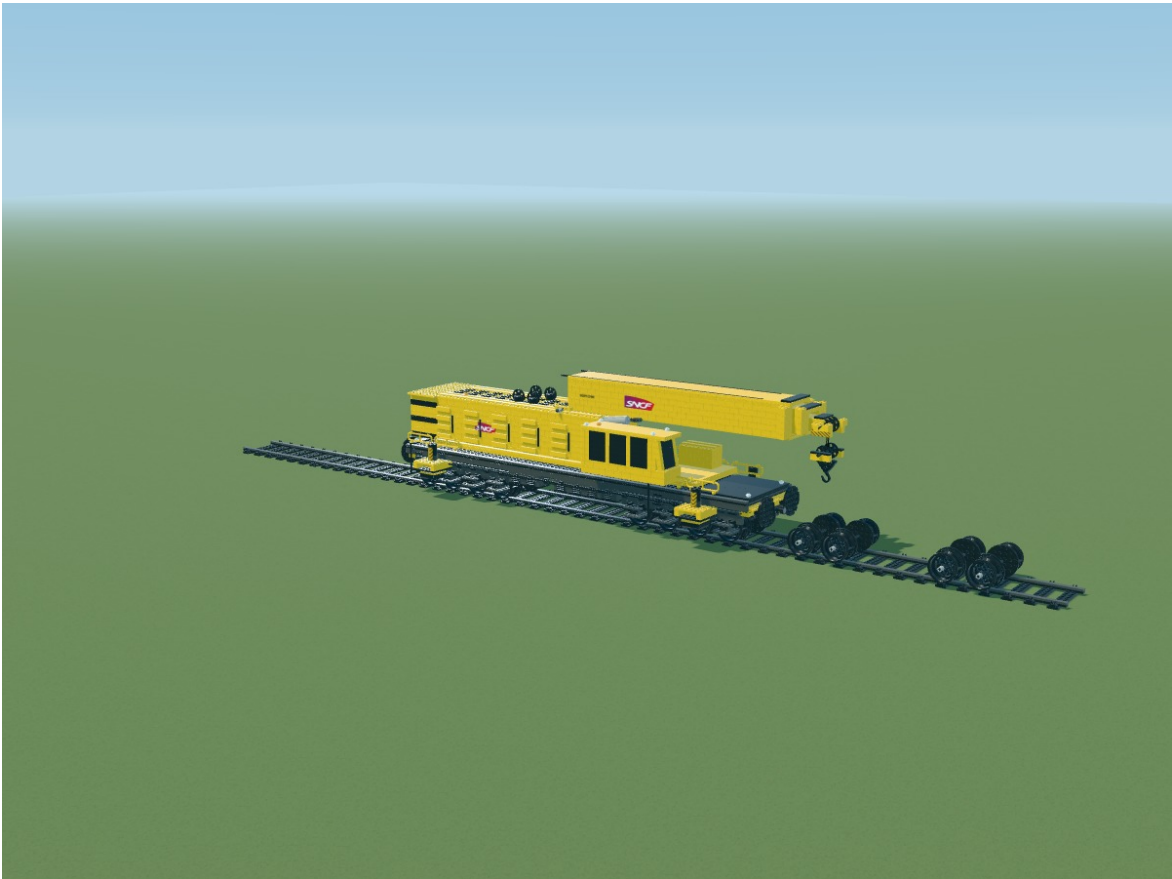
Added parts

Exact reference	Part and color · Step 82	Qty
50451	Technic axle 16L Black	4
56908	Technic wheel 43.2 mm × 26 mm Black	8

Step 83 / 107 · Boom-support wagon: flanges and bushes

Round plates 11213 suggest railway wheel flanges. Their attachment to the wheels and rail guidance still require a physical prototype.

16 elements · 5066 cumulative elements



Added parts

Exact reference	Part and color · Step 83	Qty
11213	Round plate 6 × 6 with hole and snap stud Black	8
3713	Technic bush Light Bluish Gray	8

Step 84 / 107 · Boom-support wagon: bogie frames

Build the frames above the wheels. Bogie beams and cross-members remain distinct from the main deck.

18 elements · 5084 cumulative elements



Added parts

Exact reference	Part and color · Step 84	Qty
3710	Plate 1 × 4 Black	12
3020	Plate 2 × 4 Black	6

Step 85 / 107 · Boom-support wagon: deck beams

Place the 44-stud side beams and cross-members. They support the 14-stud-wide deck.

43 elements · 5127 cumulative elements



Added parts

Exact reference	Part and color · Step 85	Qty
3010	Brick 1 × 4 Dark Bluish Gray	22
3001	Brick 2 × 4 Black	15
3001	Brick 2 × 4 Dark Bluish Gray	6

Step 86 / 107 · Boom-support wagon: first deck layer

Cover the deck with 2 × 4 plates, without enlarging any part. The surface measures 44 × 14 studs.

77 elements · 5204 cumulative elements



Added parts

Exact reference	Part and color · Step 86	Qty
3020	Plate 2 × 4 Black	77

Step 87 / 107 · Boom-support wagon: cross-bonded second layer

Turn the plates to stagger deck joints. The final strip completes the exact 14-stud width.

77 elements · 5281 cumulative elements



Added parts

Exact reference	Part and color · Step 87	Qty
3020	Plate 2 × 4 Dark Bluish Gray	77

Step 88 / 107 · Boom-support wagon: edges and markers

Add smooth deck edges and small end lights. Colors are named in the inventory.

30 elements · 5311 cumulative elements



Added parts

Exact reference	Part and color · Step 88	Qty
2431	Tile 1 × 4 Dark Bluish Gray	22
3024	Plate 1 × 1 Red	4
4073	Round plate 1 × 1 White	4

Step 89 / 107 · Boom-support wagon: buffers and couplers

Fit brick-built buffers and couplers at both ends. Coupling the full convoy requires physical validation.

8 elements · 5319 cumulative elements



Added parts

Exact reference	Part and color · Step 89	Qty
3941	Round brick 2 × 2 with axle hole Black	4
2920	Train coupling magnet holder Black	2
73092	Cylindrical train coupling magnet Black	2

Step 90 / 107 · Boom-support wagon: access steps and handrails

Add small access steps and handholds near the deck ends.

8 elements · 5327 cumulative elements



Added parts

Exact reference	Part and color · Step 90	Qty
2412b Catalogue ID	Grille tile 1 × 2 with bottom groove Black	4
30374	Bar 4L Black	4

Step 91 / 107 · Counterweight wagon: wheels and axles

Each wagon has two two-axle bogies. Wheels 56908 retain their 43.2 mm diameter; 16L axles run across the wagon.

12 elements · 5339 cumulative elements



Added parts

Exact reference	Part and color · Step 91	Qty
50451	Technic axle 16L Black	4
56908	Technic wheel 43.2 mm × 26 mm Black	8

Step 92 / 107 · Counterweight wagon: flanges and bushes

Round plates 11213 suggest railway wheel flanges. Their attachment to the wheels and rail guidance still require a physical prototype.

16 elements · 5355 cumulative elements



Added parts

Exact reference	Part and color · Step 92	Qty
11213	Round plate 6 × 6 with hole and snap stud Black	8
3713	Technic bush Light Bluish Gray	8

Step 93 / 107 · Counterweight wagon: bogie frames

Build the frames above the wheels. Bogie beams and cross-members remain distinct from the main deck.

18 elements · 5373 cumulative elements



Added parts

Exact reference	Part and color · Step 93	Qty
3710	Plate 1 × 4 Black	12
3020	Plate 2 × 4 Black	6

Step 94 / 107 · Counterweight wagon: deck beams

Place the 44-stud side beams and cross-members. They support the 14-stud-wide deck.

43 elements · 5416 cumulative elements



Added parts

Exact reference	Part and color · Step 94	Qty
3010	Brick 1 × 4 Dark Bluish Gray	22
3001	Brick 2 × 4 Black	15
3001	Brick 2 × 4 Dark Bluish Gray	6

Step 95 / 107 · Counterweight wagon: first deck layer

Cover the deck with 2 × 4 plates, without enlarging any part. The surface measures 44 × 14 studs.

77 elements · 5493 cumulative elements



Added parts

Exact reference	Part and color · Step 95	Qty
3020	Plate 2 × 4 Black	77

Step 96 / 107 · Counterweight wagon: cross-bonded second layer

Turn the plates to stagger deck joints. The final strip completes the exact 14-stud width.

77 elements · 5570 cumulative elements



Added parts

Exact reference	Part and color · Step 96	Qty
3020	Plate 2 × 4 Dark Bluish Gray	77

Step 97 / 107 · Counterweight wagon: edges and markers

Add smooth deck edges and small end lights. Colors are named in the inventory.

30 elements · 5600 cumulative elements



Added parts

Exact reference	Part and color · Step 97	Qty
2431	Tile 1 × 4 Dark Bluish Gray	22
3024	Plate 1 × 1 Red	4
4073	Round plate 1 × 1 White	4

Step 98 / 107 · Counterweight wagon: buffers and couplers

Fit brick-built buffers and couplers at both ends. Coupling the full convoy requires physical validation.

8 elements · 5608 cumulative elements



Added parts

Exact reference	Part and color · Step 98	Qty
3941	Round brick 2 × 2 with axle hole Black	4
2920	Train coupling magnet holder Black	2
73092	Cylindrical train coupling magnet Black	2

Step 99 / 107 · Counterweight wagon: access steps and handrails

Add small access steps and handholds near the deck ends.

8 elements · 5616 cumulative elements



Added parts

Exact reference	Part and color · Step 99	Qty
2412b Catalogue ID	Grille tile 1 × 2 with bottom groove Black	4
30374	Bar 4L Black	4

Step 100 / 107 · Boom support: cradle base

Reinforce the deck edge facing the crane. The cradle rests on plates within the wagon.

2 elements · 5618 cumulative elements



Added parts

Exact reference	Part and color · Step 100	Qty
3031	Plate 4 × 4 Yellow	2

Step 101 / 107 · Boom support: cradle uprights

Two yellow uprights carry the cradle beam. Their height follows this study's transport pose.

22 elements · 5640 cumulative elements



Added parts

Exact reference	Part and color · Step 101	Qty
3003	Brick 2 × 2 Yellow	22

Step 102 / 107 · Boom support: resting beam

The beam sits on the deck's first stud row, near X = 53.5. Stud tops reach approximately Y = 24.2; the boom support needs physical testing.

5 elements · 5645 cumulative elements



Added parts

Exact reference	Part and color · Step 102	Qty
3010	Brick 1 × 4 Dark Bluish Gray	3
3005	Brick 1 × 1 Yellow	2

Step 103 / 107 · Counterweight carrier: load beds

Load beds separate the yellow load from the dark deck. Their layout keeps both wagon ends accessible.

18 elements · 5663 cumulative elements



Added parts

Exact reference	Part and color · Step 103	Qty
3031	Plate 4 × 4 Yellow	18

Step 104 / 107 · Counterweight carrier: lower blocks

Build two low blocks, separate from the carrier frame. These are model volumes; no lifting mass is claimed.

24 elements · 5687 cumulative elements



Added parts

Exact reference	Part and color · Step 104	Qty
3001	Brick 2 × 4 Yellow	18
3020	Plate 2 × 4 Yellow	6

Step 105 / 107 · Counterweight carrier: open frame

Four uprights form an open central frame, inspired by the load visible in the transport photograph.

36 elements · 5723 cumulative elements



Added parts

Exact reference	Part and color · Step 105	Qty
3003	Brick 2 × 2 Yellow	36

Step 106 / 107 · Counterweight carrier: upper beams

Join the uprights with beams while keeping the centre open. Connections and load restraint still require testing.

18 elements · 5741 cumulative elements



Added parts

Exact reference	Part and color · Step 106	Qty
3010	Brick 1 × 4 Yellow	10
3004	Brick 1 × 2 Yellow	2
2431	Tile 1 × 4 Yellow	6

Step 107 / 107 · Counterweight carrier: handles and chocks

Finish with handles and chocks. Transport elements are counted separately from the crane.

12 elements · 5753 cumulative elements



Added parts

Exact reference	Part and color · Step 107	Qty
30374	Bar 4L Black	4
15712	Modified tile 1 × 1 with open clip Black	4
3039	Slope 45° 2 × 2 Yellow	4

Complete inventory

5753 elements · 48 part and color variants

Crane and base track: 4822 · Transport additions: 931

The crane's counterweight moves onto the rear wagon in transport mode. Its pieces are counted only once, in the crane section. The wagon's load beds, frame and chocks are separate additional elements.

Quantities are calculated from this version's pieces and include the track. Catalogue references do not guarantee stock, price or mechanical compatibility. This inventory is not a validated shopping list.

References and colors checked on 2026-09-12.

Exact reference	Part and color	Qty	Catalogue evidence
3004	Brick 1 × 2 Yellow	866	BrickLink · 3004
3069	Tile 1 × 2 Yellow	788	BrickLink · 3069
3020	Plate 2 × 4 Black	722	BrickLink · 3020
3020	Plate 2 × 4 Yellow	685	BrickLink · 3020
3005	Brick 1 × 1 Yellow	358	BrickLink · 3005
3020	Plate 2 × 4 Dark Bluish Gray	330	BrickLink · 3020
2431	Tile 1 × 4 Dark Bluish Gray	192	BrickLink · 2431
3069	Tile 1 × 2 Black	178	BrickLink · 3069
3001	Brick 2 × 4 Black	176	BrickLink · 3001
3710	Plate 1 × 4 Black	172	BrickLink · 3710
3010	Brick 1 × 4 Dark Bluish Gray	147	BrickLink · 3010
15712	Modified tile 1 × 1 with open clip Black	146	BrickLink · 15712
3001	Brick 2 × 4 Dark Bluish Gray	132	BrickLink · 3001
30374	Bar 4L Black	114	BrickLink · 30374
2412b Catalogue ID	Grille tile 1 × 2 with bottom groove Black	92	BrickLink · 2412b
3003	Brick 2 × 2 Yellow	74	BrickLink · 3003

BRICK ATELIER / LARGE MODEL

Exact reference	Part and color	Qty	Catalogue evidence
3941	Round brick 2 × 2 with axle hole Black	72	BrickLink · 3941
2431	Tile 1 × 4 Yellow	58	BrickLink · 2431
3001	Brick 2 × 4 Yellow	58	BrickLink · 3001
3031	Plate 4 × 4 Dark Bluish Gray	41	BrickLink · 3031
3031	Plate 4 × 4 Black	41	BrickLink · 3031
11213	Round plate 6 × 6 with hole and snap stud Black	36	BrickLink · 11213
56908	Technic wheel 43.2 mm × 26 mm Black	32	BrickLink · 56908
3031	Plate 4 × 4 Yellow	32	BrickLink · 3031
3010	Brick 1 × 4 Yellow	30	BrickLink · 3010
4073	Round plate 1 × 1 White	20	BrickLink · 4073
3701	Technic brick 1 × 4 with holes Yellow	18	BrickLink · 3701
3713	Technic bush Light Bluish Gray	18	BrickLink · 3713
50451	Technic axle 16L Black	17	BrickLink · 50451
3003	Brick 2 × 2 Dark Bluish Gray	16	BrickLink · 3003
2486	Railing 1 × 8 × 2 Yellow	16	ToyPro · 2486
3941	Round brick 2 × 2 with axle hole Dark Bluish Gray	12	BrickLink · 3941
3024	Plate 1 × 1 Red	12	BrickLink · 3024
4185	Technic pulley Ø 24 mm Black	9	BrickLink · 4185
2920	Train coupling magnet holder Black	6	ToyPro · 2920
73092	Cylindrical train coupling magnet Black	6	BrickLink · 73092
2431	Tile 1 × 4 Black	6	BrickLink · 2431

BRICK ATELIER / LARGE MODEL

Exact reference	Part and color	Qty	Catalogue evidence
3039	Slope 45° 2 × 2 Yellow	6	BrickLink · 3039
2780	Technic friction pin 2L Black	4	BrickLink · 2780
4079	Seat 2 × 2 Black	2	BrickLink · 4079
4592	Control lever base Black	2	BrickLink · 4592
4593	Control lever Black	2	BrickLink · 4593
40918c01 Catalogue ID	Long Technic linear actuator assembly Light Bluish Gray	2	BrickLink · 40918c01
3707	Technic axle 8L Black	2	BrickLink · 3707
4073	Round plate 1 × 1 Trans-Orange	2	BrickLink · 4073
18939	Technic 60-tooth turntable, base Light Bluish Gray	1	BrickLink · 18939
18938	Technic 60-tooth bevel turntable, top Black	1	BrickLink · 18938
70644	Large metal Technic hook Black	1	BrickLink · 70644

References and limitations

The scale of approximately 1:20 is indicative. The model chassis spans 88 studs, or 704 mm. Comparison with the 14 m stated by SNCF does not constitute a dimensioned plan or precise calibration.

Physical testing is needed for the wheel 56908/plate 11213 connection, rail guidance, telescopic slides, actuator anchors and travel, cable reeving, stability and outrigger locking.

Parts retain their actual dimensions. Imported geometry comes from the official LDraw Parts Library under CC BY 4.0. Authors and source files are listed in the website's attribution file.

LDraw · CC BY 4.0 · Attribution

The documentary sources below are references. Third-party photographs and documents are not reproduced in this guide.

SNCF Réseau · Bully-les-Mines, press release of 8 April 2026, p. 3

www.sncf-reseau.com · 2026-09-12

SNCF Réseau · Crane presentation in Dijon

www.sncf-reseau.com · 2026-09-12

Kleinspoor · Instructions 830 B, reproduction architecture

www.kleinspoor.nl · 2026-09-12

Bernard Ciry / Kleinspoor · Real crane photographs, p. 14

www.kleinspoor.nl · 2026-09-12

Oliver Beretta / STTX · Photograph in transport configuration

www.forum.sttx.fr · 2026-09-12

Kirow · Multi Tasker family brochure

www.kirow.de · 2026-09-12

Independent, unofficial concept. LEGO, SNCF and Kirow remain trademarks of their respective owners; no endorsement is claimed.

Created by Nicolas Pieper · NicolasPieper.com