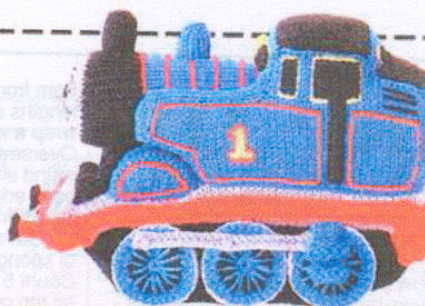


The Toy



Materials

● Of D.K. yarn, allow 60 g in blue, 30 g each in black and pale grey, 10 g each in red and yellow, and a small amount in white. No. 11 (3 mm) knitting needles; 100g washable toy stuffing; 2 x 5 mm thick washing-up sponge cloths; black sewing thread; black stranded embroidery cotton; plastic drinking straw.

Tension and size

● Worked at a tension of 26 stitches and 36 rows, to 10 x 10 cm. Thomas will measure 15 cm/6 in tall and 23 cm/9 in long.

Abbreviations

● **K**, knit; **p**, purl; **st**, stitch; **tog**, together; **inc**, increase (by working twice into same st); **dec**, decrease (by taking 2 sts tog); **ss**, stocking st (k on right side and p on wrong side); **gst**, garter st (k plain on every row).

Note

● Begin all ss pieces with a k row, unless otherwise stated. Instructions in square brackets are worked as stated after the 2nd bracket.

Boiler

(make 1 piece)

● With black, cast on 34 sts for front edge. Ss 12 rows. With blue, ss 24 rows.

FOR CAB END: P 2 rows, then k 1 row. * **Next (dec) row:** P1, [p2tog, p1] to end — 23 sts. K 1 row.

Next (dec) row: P1, [p2tog] to end — 12 sts. K 1 row. Break yarn leaving an end. Thread through sts on needle, draw up tightly and fasten off. * **FOR**

FACE: With right side facing, rejoin pale grey and pick up and k 34 sts from front edge of boiler. Beginning with a p row, ss 4 rows. Work cab end from * to *.

BOILER BLOCK (make 1 piece)

With black, cast on 24 sts. Ss 6 rows for half of base. P 1 row. Beginning with a p row, ss 3 rows for side. P 1 row. Beginning with a p row, ss 11 rows for top. P 1 row. Beginning with a p row, ss 3 rows for side. P 1 row. Beginning with a p row, ss 5 rows for half of base. Cast off.

FOR END SECTIONS: With right side facing, using black, pick up and k 10 sts from one edge of top section between the two gst rows. Beginning with a p row, ss 3 rows. Cast off. Work opposite end to match.

Cab

LEFT CAB AND TANK SIDE

(make 1 piece)

● With blue, cast on 32 sts for base edge. Ss 7 rows.

TO SHAPE TANK FRONT EDGE:

Next row: Cast on 7 sts, p to end — 39 sts. Ss 7 rows. **TO SHAPE**

TOP OF TANK: **Next row:** Cast off 17 sts, p to end — 22 sts.

FOR TOP OF CAB AND COAL BUNKER: Ss 4 rows.

TO SHAPE COAL BUNKER:

Next row: Cast off 8 sts, k to end — 14 sts.

Ss 3 rows. Cast off for top of cab.

RIGHT CAB AND TANK SIDE

(make 1 piece)

Work as left cab and tank side, but beginning with a p row, and reading k for p and p for k throughout.

CAB AND COAL BUNKER BACK

(make 1 piece)

With blue cast on 20 sts for base edge. Ss 20 rows for coal bunker. P 1 row.

FOR COAL: With black, p 1 row.

Next row: [K1, p1] to end.

Next row: [P1, k1] to end.

Repeat last 2 rows, 3 times more.

FOR CAB BACK: With blue, ss 4 rows.

TO SHAPE CAB ROOF: Cast off 4 sts at beginning of next 4 rows — 4 sts. Cast off.

CAB FRONT AND INNER TANK

SIDES (make 1 piece)

With blue, cast on 32 sts for base edge. Ss 6 rows.

TO SHAPE FRONT EDGES OF

TANKS: Cast on 7 sts at beginning of next 2 rows — 46 sts. Ss 6 rows.

SHAPE TOP EDGES OF TANKS

AND SIDES OF CAB: **Next 2 rows:**

Cast off 18 sts, then cast on 5 sts, ss to end — 20 sts.

WORK CAB FRONT: Ss 8 rows.

SHAPE CAB ROOF: Cast off 4 sts at beginning of next 4 rows — 4 sts. Cast off.

RIGHT AND LEFT TANK SIDE

GUSSETS (make 2 pieces)

With blue, cast on 6 sts. Ss 16 rows for top of tank. Gst 2 rows.

Ss 6 rows for front of tank.

Gst 2 rows. Ss 22 rows. Cast off.

CAB ROOF (make 1 piece)

With black, cast on 22 sts for back edge. Ss 16 rows. Cast off for front edge.



Cab and tank base

(make 1 piece)

- With blue, cast on 20 sts for back edge. Ss 30 rows.

FOR BASE OF LEFT TANK:
Next row: K6, turn and work on these sts only.

Ss 13 rows. Cast off for front of tank. Rejoin yarn to remaining sts, cast off first 8 sts for base of cab front, k to end — 6 sts.

FOR BASE OF RIGHT TANK:
Ss 13 rows. Cast off for front of tank.

Wheel covers

(make 2 pieces)

- With blue, cast on 5 sts. Ss 2 rows.

1st inc row: Inc in each st to end — 10 sts. P 1 row. **2nd inc row:** [Inc, k1] to end — 15 sts. P 1 row. **3rd inc row:** K1, inc, [k2, inc] to last st, k1 — 20 sts. P 3 rows. Beginning with a k row, ss 3 rows. K 2 rows, p 1 row.

1st dec row: K1, k2tog, [k2, k2tog] to last st, k1 — 15 sts. P 1 row. **2nd dec row:** [K2tog, k1] to end — 10 sts. P 1 row. **3rd dec row:** [K2tog] to end — 5 sts. Break yarn leaving an end, thread through sts on needle, draw up tightly and fasten off.

Chassis

(make 1 piece)

- With pale grey, cast on 49 sts. Ss 14 rows for half of underside.

FOR LEFT SIDE EDGE: With red, k 2 rows.

TO SHAPE CURVED FRONT:
Inc row: K42, [inc] 5 times,

k2 — 54 sts. P 2 rows. With grey, beginning with a p row, ss 28 rows for chassis top.

FOR RIGHT SIDE EDGE: With red, p 3 rows.

TO SHAPE CURVED FRONT:

Dec row: K42, [k2tog] 5 times, k2 — 49 sts. K 1 row. With grey, beginning with a k row, ss 14 rows for half of underside. Cast off.

CHASSIS BACK (make 1 piece)
With right side facing, with red pick up and k 22 sts from back edge of chassis top, between the 2 gst rows.

Ss 1 row. Beginning with a k row, ss 8 rows. K 3 rows. P 1 row.

SHAPE SIDE GUSSETS: Next 2 rows: Cast on 3 sts, p to end — 28 sts. Beginning with a k row, ss 4 rows. Cast off.

CHASSIS FRONT (make 1 piece)
Join cast-on and cast-off edges of chassis to form centre of underside seam. With right side facing, with red, pick up and k 22 sts from front edge of chassis underside, between the 2 gst rows. K 1 row. Beginning with a k row, ss 6 rows. P 1 row. Beginning with a p row, ss 4 rows. K 1 row. With pale grey, beginning with a k row, ss 4 rows. Cast off.

CHASSIS FRONT SIDE SECTIONS (make 2 pieces)
With red, cast on 5 sts. Ss 6 rows. Cast off.

Base block

(make 1 piece)

- With black, cast on 46 sts. Ss 11 rows for half of top.

FOR RIGHT SIDE: Next row: Cast off 6 sts, k to end — 40 sts.

TO SHAPE CURVED FRONT:
1st row: K to last st, inc.

2nd row: Inc, p to end. Repeat last 2 rows, twice more — 46 sts.

TO SHAPE BACK: Next row: Cast off 11 sts, k to end — 35 sts.

TO SHAPE FRONT: Next row: Cast off 7 sts, p to end — 28 sts. Ss 6 rows.

FOR BASE: P 1 row. Beginning with a p row, ss 20 rows. K 1 row.

FOR LEFT SIDE: Beginning with a k row, ss 6 rows.

TO SHAPE BACK: Next row: Cast on 11 sts, k to end — 39 sts.

TO SHAPE FRONT: Next row: Cast on 7 sts, p to end — 46 sts.

TO SHAPE CURVED FRONT:
1st row: K to last 2 sts, k2tog.

2nd row: P2tog, p to end. Repeat last 2 rows, twice more — 40 sts.

P 1 row. Next row: Cast on 6 sts, p to end — 46 sts. Beginning with a k row, ss 10 rows for half of top. Cast off.

FOR BACK SECTION: With right side facing, with black, pick up and k 18 sts from back edge of base, between the 2 gst rows.

K 1 row. Beginning with a k row, ss 22 rows. P 1 row. Beginning with a p row, ss 6 rows. Cast off.

FOR FRONT SECTION: With right side facing, with black, pick

up and k 18 sts from front edge of base between the 2 gst rows. K 1 row. Beginning with a k row, ss 16 rows. Cast off.

Wheels

(make 12 pieces)

- With blue, cast on 30 sts. K 1 row. With black, p 1 row.

1st dec row: [K1, k2tog] to end — 20 sts. Ss 2 rows.

2nd dec row: With blue, [p2tog] to end — 10 sts. Break yarn leaving an end, thread through sts, draw up tightly and fasten off.

WHEEL CONNECTING RODS (make 2 pieces)

- With pale grey, cast on 26 sts. K 1 row. Cast off kwise.

Steps

(make 2 pieces)

- With blue, cast on 5 sts. Beginning with a p row, ss 6 rows.

Beginning with a k row, ss 6 rows. Repeat last 12 rows, once more. Cast off.

Funnel

(make 1 piece)

- With black, cast on 12 sts. Ss 6 rows. Gst 2 rows.

Dec row: [K2tog] to end — 6 sts. Break yarn leaving an end, thread through sts on needle, draw up tightly and fasten off.

Dome

(make 1 piece)

- With blue, cast on 12 sts. Ss 6 rows.

Dec row: [K2tog] to end — 6 sts.

Break yarn leaving an end. Thread through sts on needle, draw up tightly and fasten off.

Portholes

FRONT PORTHOLE (make 2 pieces)

- With black, cast on 9 sts. K 1 row. Break yarn leaving an end. Thread through sts on needle, draw up tightly and fasten off.

BACK PORTHOLE (make 2 pieces)

- With black, cast on 6 sts. K 1 row. Break yarn leaving an end. Thread through sts on needle, draw up tightly and fasten off.

Whistles

(make 2 pieces)

- With yellow, cast on 4 sts. Gst 2 rows. Ss 3 rows. Break yarn leaving an end. Thread through sts on needle, draw up tightly; fasten off.

Boiler supports

(make 4 pieces)

- With black, cast on 6 sts. Ss 2 rows. Dec 1 st each end of next 2 rows — 2 sts. Cast off.

Buffers

(make 4 pieces)

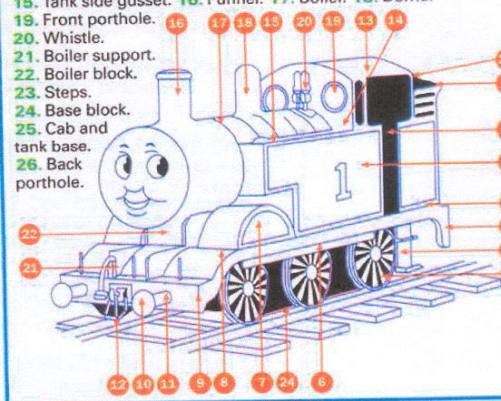
- With black, cast on 12 sts. **Dec row:** [K2tog] to end — 6 sts. Break yarn leaving an end. Thread through sts on needle, draw up tightly and fasten off.

BUFFER STEMS (make 4 pieces)

- With red, cast on 5 sts. Ss 3 rows. Cast off.

TECHNICAL TERMS: Listed below are some terms we've used to describe various parts of our engine characters.

1. Cab and coal bunker back.
2. Cab side.
3. Side tank.
4. Wheel.
5. Chassis back.
6. Connecting rod.
7. Wheel cover.
8. Chassis.
9. Chassis front.
10. Buffer.
11. Buffer stem.
12. Coupling hook.
13. Cab roof.
14. Cab front and inner tank sides.
15. Tank side gusset.
16. Funnel.
17. Boiler.
18. Dome.
19. Front porthole.
20. Whistle.
21. Boiler support.
22. Boiler block.
23. Steps.
24. Base block.
25. Cab and tank base.
26. Back porthole.



To make up

Take boiler piece and join face seam and front black section, then join remainder of seam, leaving an opening. Stuff firmly to form a cylinder. Join opening. Join cast-on and cast-off edges of boiler block, then sew one end section in place, matching corner points to gst rows. Stuff firmly; sew remaining end section in place. With boiler seam running along underside, sew seam to centre of boiler block top, placing end of boiler block flush with cab end of boiler.

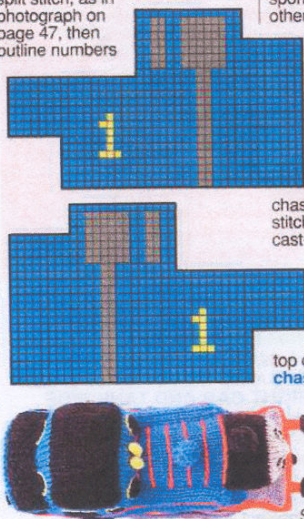
Following charts (right), Swiss darn cab opening, window and number on cab and tank side pieces. Join one side of cab and coal bunker back piece to one cab and tank side piece, matching coal section to the 8 cast-off sts for coal bunker. Repeat on other side of back with remaining cab and tank side piece.

Take cab front and inner tank sides piece and sew side edges of upper cab portion to matching sections on cab and tank side pieces. Sew cab roof to top of cab. Take tank side gusset pieces and sew cast-on edge of each to the 5 cast-on stitches at each side of cab front. Sew outer edge of each gusset to tank side, matching gst rows with corner points at front of tanks. Sew inner edge of gusset to inner tank side in same manner. Following diagram (printed in blue below), cut 2 cab formers from sponge. Fit inside front and back of cab, matching curved top with top of cab, and hold in place with tacking. Using blue yarn, back stitch through knitting and sponge along first row of cab back. Take cab and tank base piece and sew cast-on edge to cast-on edge of cab and coal bunker back. Sew one side of base piece to cast-on edge of matching cab and tank side piece. Separately stuff coal bunker and cab firmly, keeping sponge formers upright, then sew remaining side of base piece to remaining cab and tank side piece as before.

Mark the centre 8 k stitches on cast-on edge of cab front and inner tank sides piece with pins and sew these to matching cast-off 8 k stitches on base piece. Stuff right and left tanks firmly, then sew remainder of base piece to tanks. Remove tacking. Fit boiler inside tanks so that base of boiler block is flush with base of cab and tanks. Sew back of boiler to cab front and top of tanks to sides of boiler. Join seam on each front porthole to form a circle, then

position and oversew to cab front with sewing thread. Position semicircular back portholes on cab back, with flat base flush with coal, and oversew in place as before.

Using yellow yarn, outline front and back portholes, cab windows, and top of cab openings with split stitch. Using red yarn, embroider lines on cab and tank sides in split stitch, as in photograph on page 47, then outline numbers



in the same way. With red split stitch, work 6 bands, equally spaced round top of boiler. With black, work 3 horizontal straight stitches over 5 k stitches, at top of coal bunker on each side.

Using pale grey, work vertical satin stitches on face, in a triangular shape for nose. With white, work each eye by embroidering 8 chain stitches in a circle, then fill in centre of eye with a single chain stitch. Work pupils by embroidering a circle of 5 chain stitches with black; add "gloss" marks by working a single white stitch at side edge of each pupil. Embroider teeth with white, working in split stitch. Separate strands of embroidery cotton and, using 2 strands, outline eyes, mouth and nose, and embroider eyebrows and chin, working in chain stitch, as in photograph on page 48.

Join seam on funnel, leaving base edge open. Stuff firmly and sew to top of black section on boiler. Join seam on dome, leaving base edge open. Stuff firmly and sew to top of boiler, overlapping third red band in

from front. Cut two 1.5 cm lengths of drinking straw and wrap a whistle piece round each. Oversew side edges together round straw, then gather round base edge and fasten off.

Position and sew to cab front.

Cut a 20 x 8.5 cm rectangle of sponge and fit inside chassis. Count 5 k sts in from front edge on top of chassis and sew cast-off edge of chassis front piece along this line. Sew one side section to chassis front, matching corner points with gst rows. Cut two 8.5 x 1 cm strips of sponge, place one on top of the other and fit inside chassis front,

then sew remaining side section to open end. On chassis back piece, fold back the 3 cast-on gusset stitches at each side and sew between the 2 gst rows, then sew side edge of each gusset to chassis back. Cut an 8.5 x 1.5 cm strip of sponge and fit inside chassis back, then count 3 k stitches in from each end of cast-off edge and mark with pins.

Count 3 k stitches in from back edge on underside of chassis; sew section between pins on cast-off edge of chassis back piece along this line. Sew top of gussets and remainder of chassis back to chassis and remove pins. Join cast-on and cast-off edges of base block piece to form top, then sew cast-on or cast-off 6 stitches at front to matching curved edge. Sew front section in place.

Sew back section in place, matching gst row to corner points on side pieces, leaving cast-off edge of back section open. Cut a 20 x 8.5 cm rectangle of sponge and fit inside base; stuff base block firmly and join back opening. Position chassis on top of base block and sew in place, overlapping side of base block with 2 pale grey knit rows of chassis.

Join seam on each wheel piece, then place wheels wrong sides together and oversew cast-on edges together. With pale grey yarn, embroider a line of chain stitch round edge of each

wheel. With blue yarn, embroider wheel spokes, in straight stitches. Position and sew 3 wheels to each side of base block, then pin wheel-connecting rods in place and sew to each wheel with a few pale grey stitches to form "bolts".

Sew cab and boiler to top of chassis, leaving a border of 2 pale grey k rows at each side of chassis, and a border of 2 pale grey k stitches at back of chassis. On each steps piece, sew first and last rows of each reverse stocking stitch section together at back of work to form 2 steps. Position and sew to centre of wheel directly below cab opening. Work a gathering thread through every stitch at cast-on edge of each wheel cover piece, then draw up tightly and fasten off. Stuff wheel covers firmly, then position and sew in place on top of chassis.

With red yarn, outline each wheel cover with split stitch. Take boiler support pieces in pairs, wrong sides together, and oversew edges together, then position and sew base edges to front of chassis, in line with sides of boiler block. Join seam on each buffer piece to form a circle. Cut four 1 cm lengths of drinking straw and wrap a buffer stem piece round each one. Oversew side edges of buffer stem together round straw, then sew buffer to one end with sewing thread. Position and sew base of buffer stems to front and back chassis. In centre of chassis front and chassis back,

Swiss darn a 2-stitch wide, 2-row deep, square with black yarn, then work a single vertical stitch down centre and cover with blanket stitch to form coupling hook.



Left: Template for cab formers