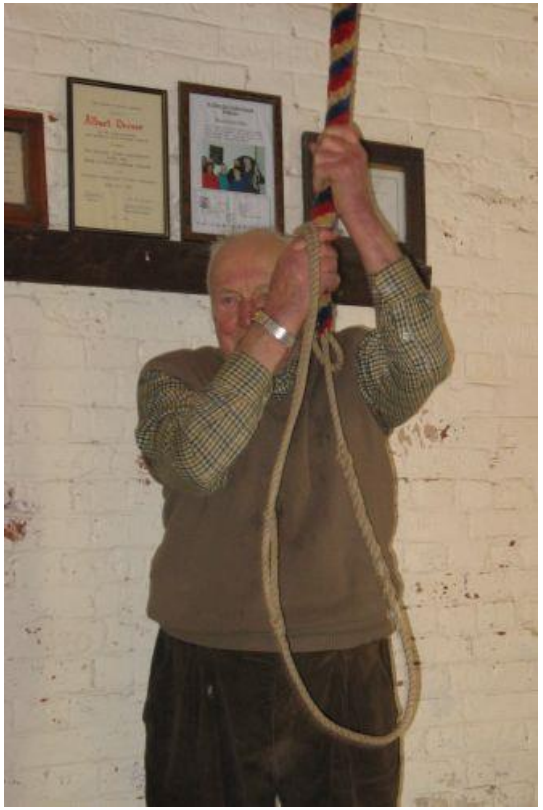
# Record of repair of bell-frame and bell retuning

Redgrave St Mary

November 2017 to February 2019

# Albert Driver's legacy



Rang the bells for 80 years

Left £142,000 in his will to refurbish the bell installation

# Nicholson Engineering of Bridport were commissioned to repair the bell-frame, provide completely new bell ringing equipment, and retune the bells

To do that the massive bell-frame and six bells
had to go to the factory – the work took from November 2017 until January 2019

# Removing the bells

Bells down through 50 feet

Bells waiting to load on transport

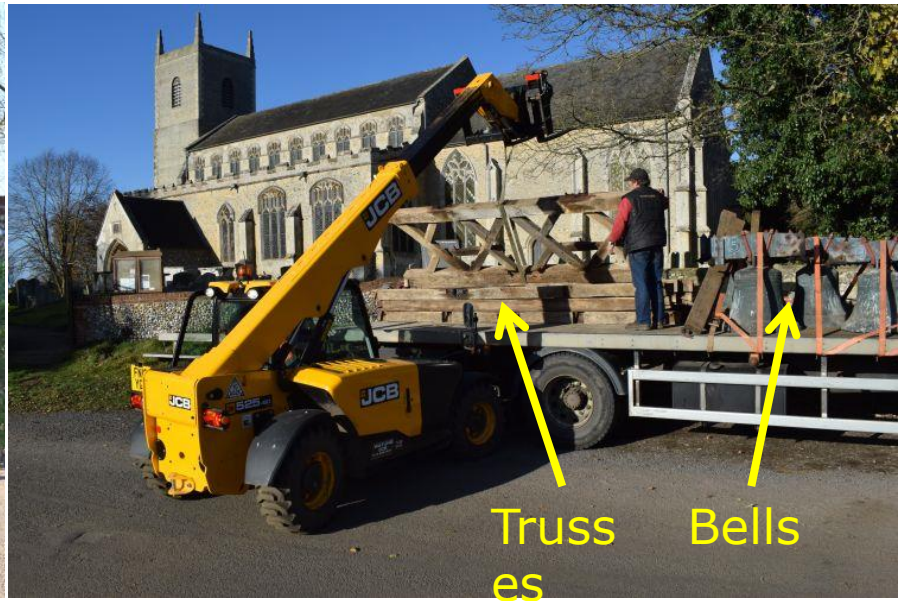
# Removing the trusses

Trusses went down through 3 trapdoors

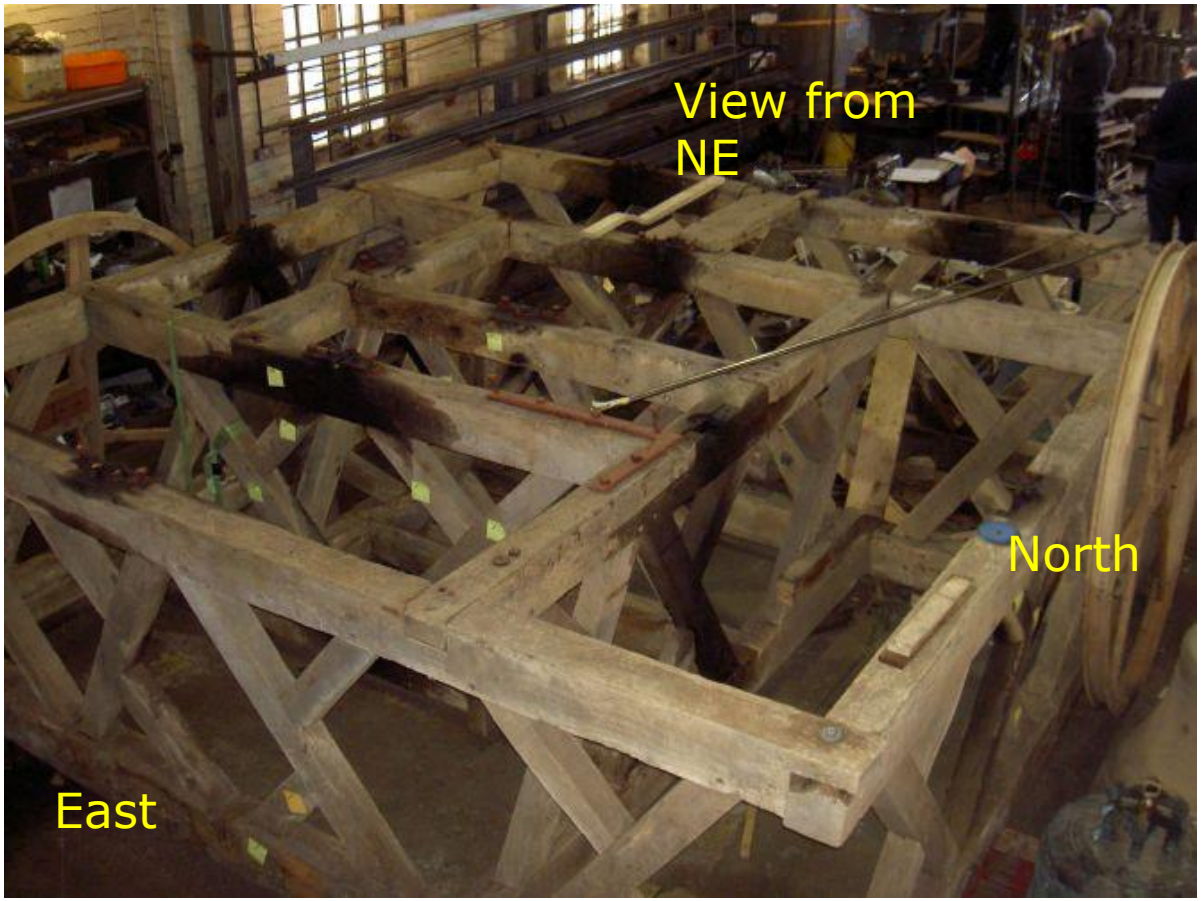
The bell-frame comes apart like a huge flat pack

Smaller trusses were manhandled into porch

# Then truck was loaded with teleporter and away to the factory at Bridport

# Bell frame was reassembled in factory to assess what repairs were needed



# It took 14 months to repair

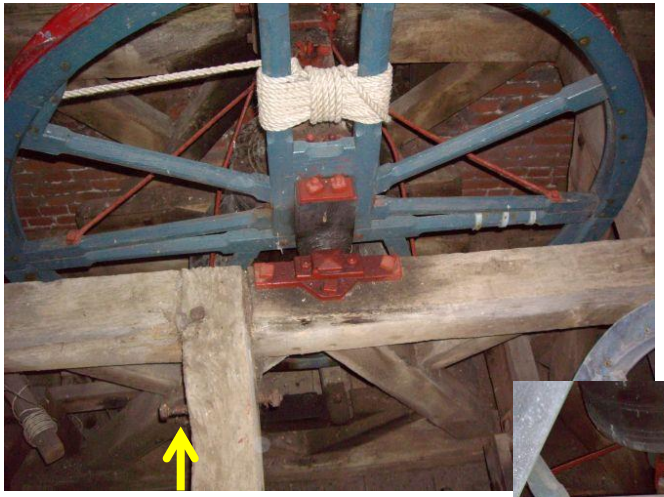
- One third of all timber replaced
- Most of the 174 joints reassembled
- 56 steel brackets all truss junctions
- 4 corner posts added with massive brackets
- Steel base frame made for setting into walls
- All bolted to the steel base frame
- Bells re-tuned on vertical lathe
- Made new headstocks, bearings, stays, sliders, wheels, pulley blocks, clappers

# Before tuning showing strike on No 2

# All 6 bells tuned on vertical lathe

# Repaired frame rebuilt in factory

# Items not present on repaired frame

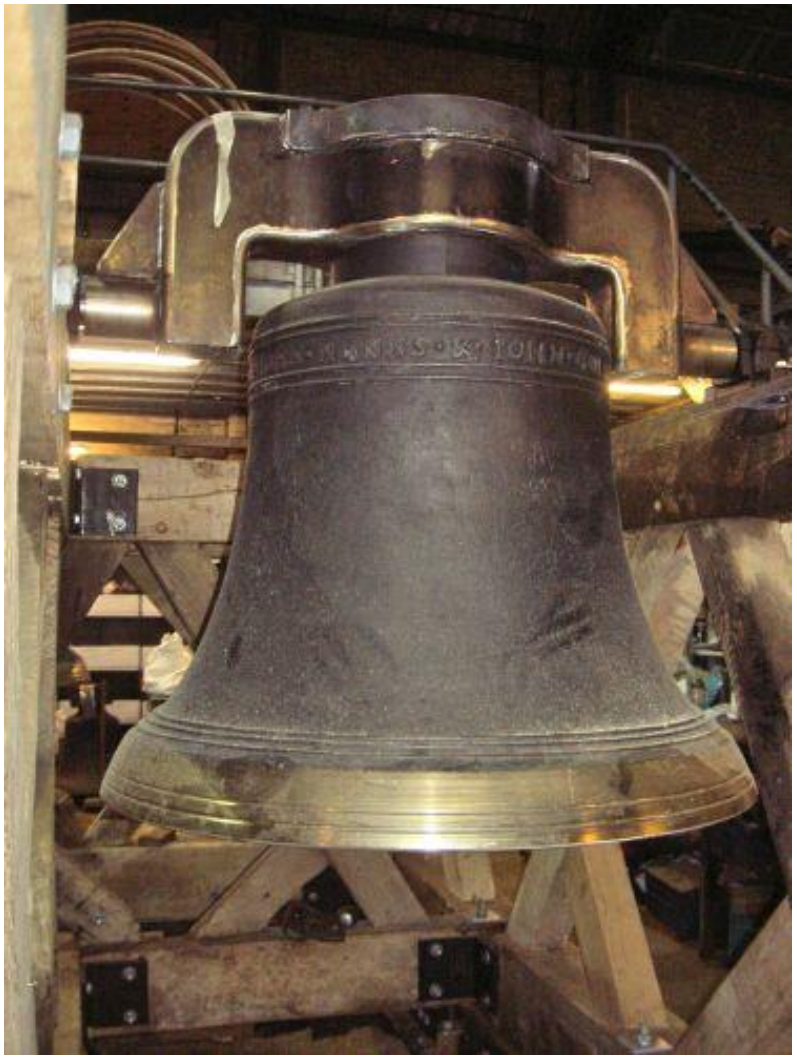


Flagpole fitting bolt
South end of E2
(Evidence of pole hole in roof but predates any photos)

Repair of 1886 bell No 3
South end W2
Headstock broke and bell fell off
Repair or strengthening L shaped bracket date unknown at join E2

# Bell crowns before headstocks fitted
# all remain but not completely visible

# Bell No2 headstock before galvanising

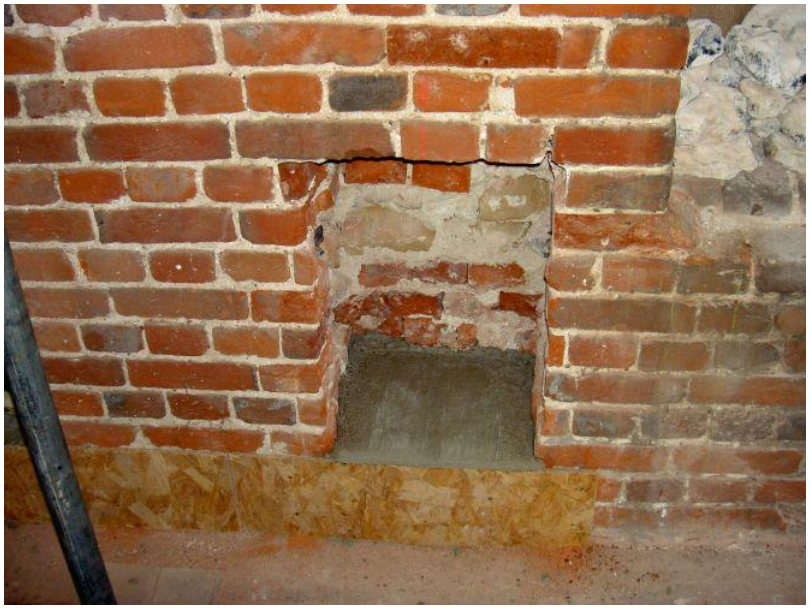



Bell underside showing
4 headstock bolts
and clapper hole

# Bell chamber floor repaired

# 15 holes for beams & padstones

Hole cut and shuttered



Padstone poured in 40N bag mix

# Used 2 teleporters to unload

# Bells waiting outside

# Trusses in porch showing joints

# Ready to go through interior tower door

# Lifting gear using steel lifting beam

Rope gin wheel
2 manual chain blocks
Electric chain hoist

Gin wheel lifted chain blocks
Chain block lifted electric hoist

# Bells in safe storage 1 floor up

# Components into silence chamber


Wheels, sliders, stays, pulley blocks

Wheels,
steel angle & corner brackets

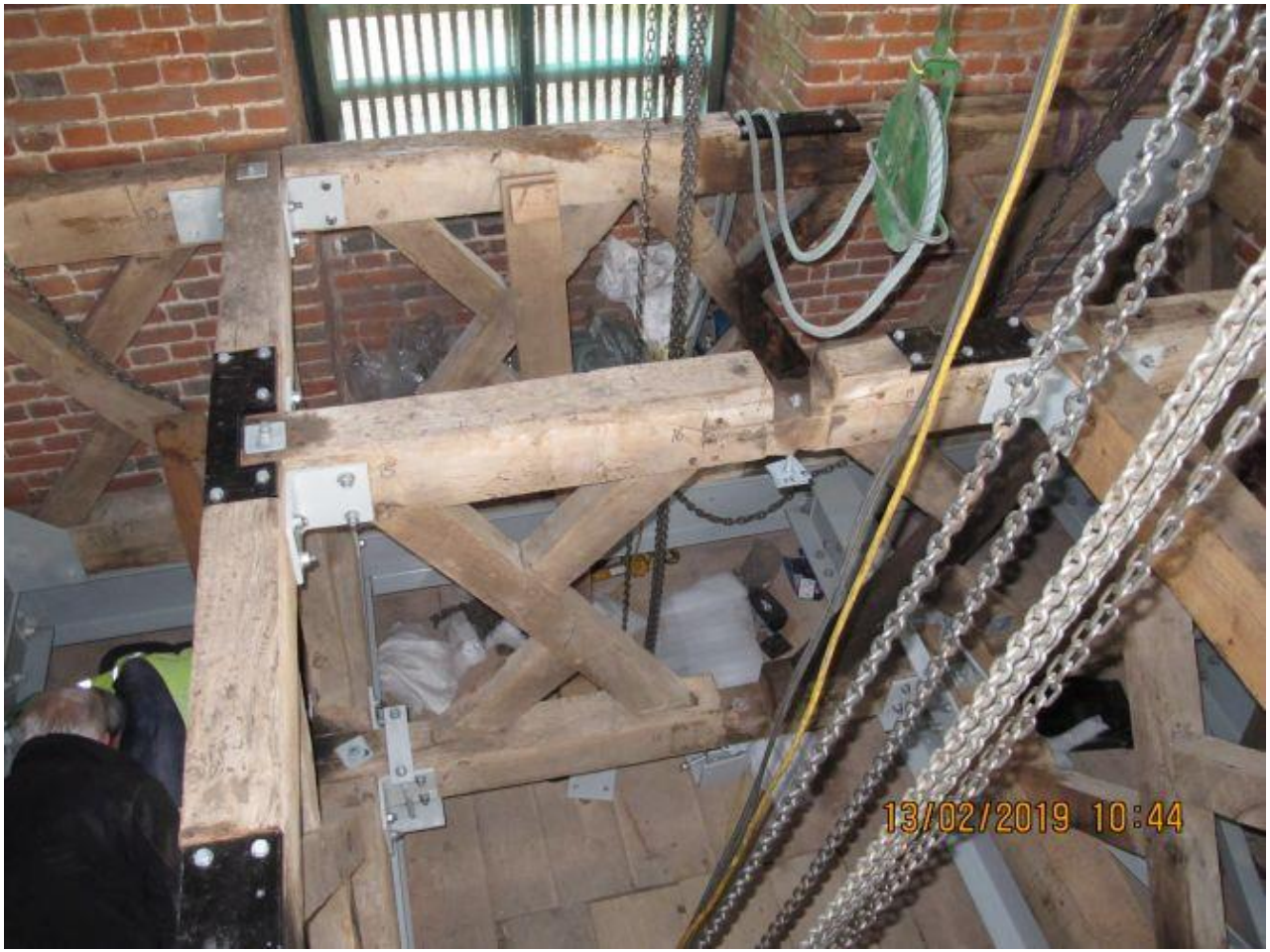
# Then grillage girders to bell chamber

# Grillage assembled then grouted and waited to set

# First truss through hatches

# First truss in place

# Frame ready to take bells



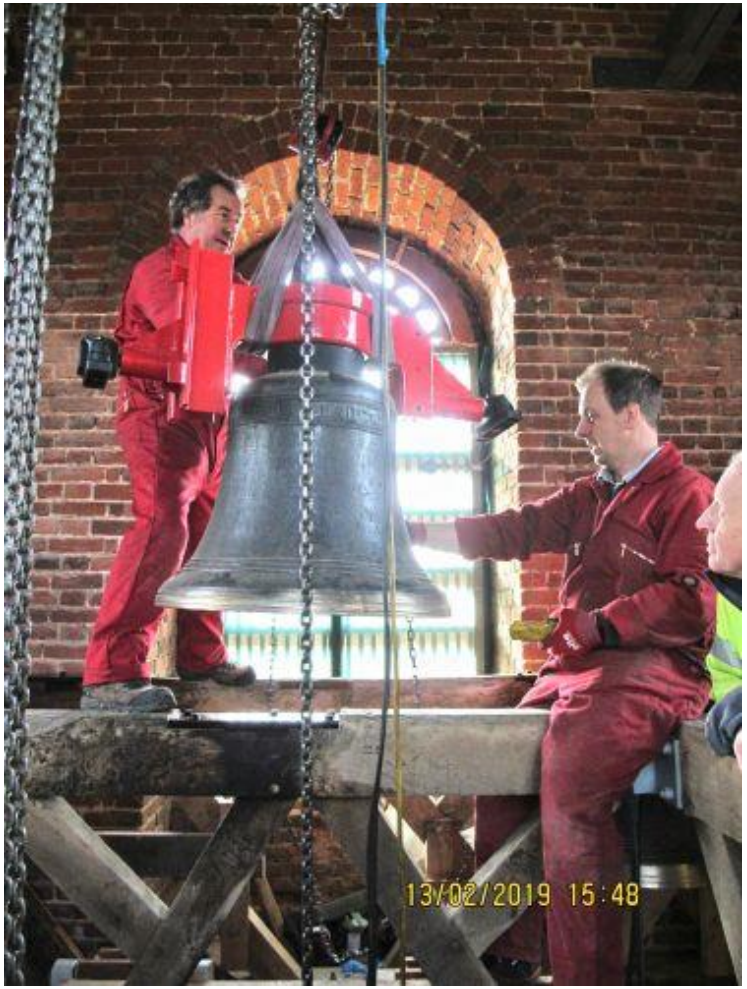

Centre truss goes in when all bells are in bell chamber

# New corner posts & steel brackets


Historical note: The bell frame was a classical Elphick type W which did not have corner posts.

# Bell coming up

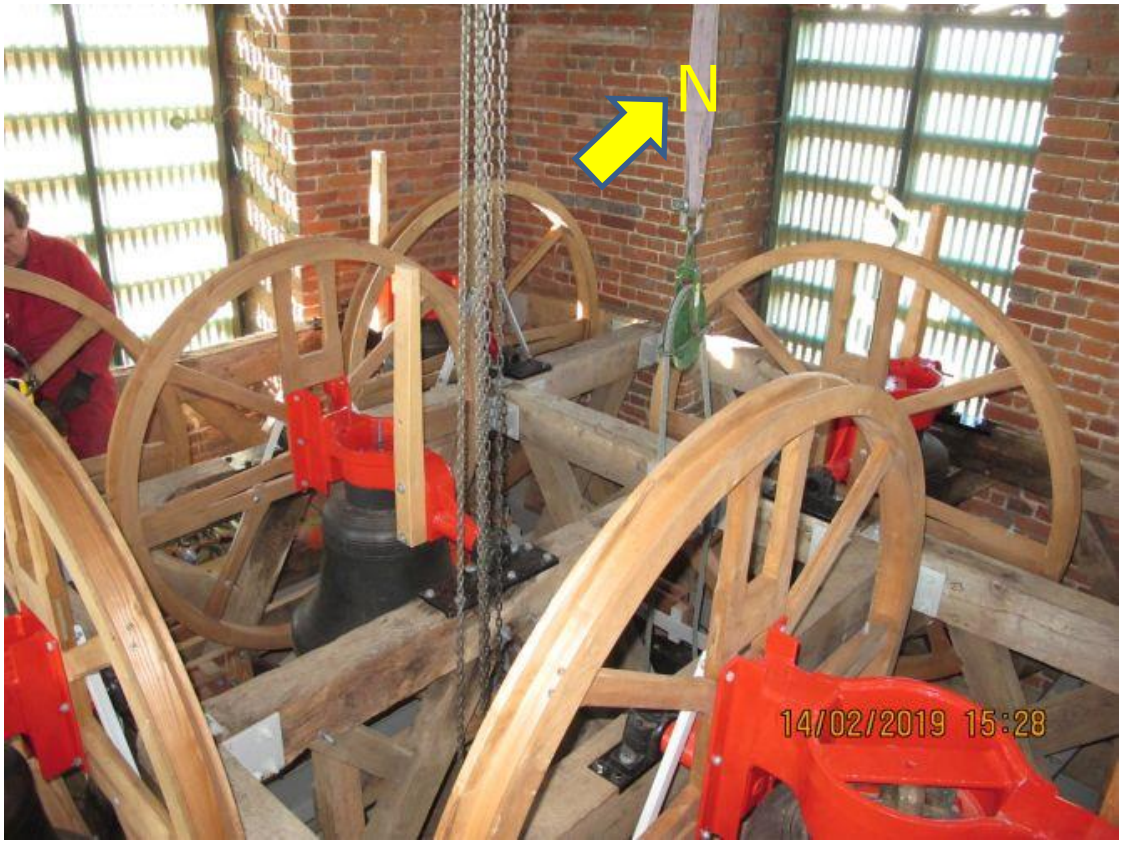
# Positioning the bells




# No2 bell complete

# Slider and clapper in place

# All in place except ropes



# Hand testing the bells

# Installation complete

# Nicholson's testing ringing up

# Then a ring