

Fingerpost Refurbishment

<https://www.dorsetaonb.org.uk/project/dorset-fingerpost-project/>

Does your Fingerpost look as sad as these ?
Why not restore them to their former Glory!



Our Unique Posts and Community

Dorset has four Red Posts, believed to mark resting places for prisoners en-route to be deported.....

Tired, ill-fitting with a boded up roundel, this is one of 4 Red Posts in Dorset – now fully restored to it's iconic status at 'Botany Bay'

<https://www.dorsetecho.co.uk/news/15471308.refurbishment-of-the-red-post-at-bloxworth-by-dorset-fingerpost-project/>



All thanks to a real community effort including local parishioners, Dorchester Men's Shed, Keir Highways, normtec, and, under the supervision of a Weston Collage supervisor, and two 'Young Offenders' at Portland HMIP

Some of Our Community Volunteers

See more: <https://twitter.com/fingerpostsigns>

Get your 15 minutes of fame here!

The Echo and 'Dorset Life' love our Fingerposts!

<https://www.dorsetlife.co.uk/2015/01/time-of-the-signs/>

Some restorations make it on Radio Solent and BBC South and even National telly - You could maybe feature in the next visit to Dorset in 'Escape to the Country'



See how Ian and others restored six Fingerposts at Hilton
https://www.youtube.com/watch?v=UtcP_Dzvoq8



Commissioned by
Sixpenny Handley Brewery
– Cheers!

Thank you @Escape_Country
@Nicki_Chapman
for a great day filming @Fingerpostsigns
helping us restore our heritage

Partnerships

Over the last few years we have formed productive partnerships with HMIP at Guys Marsh and Portland and The Dorchester and Blandford Men's Sheds. Their ongoing dedication has helped complete the restoration many dozens of Fingerposts including well over a hundred 'fingers' and thousands of letters. ***Thank You!***



Here the Weston College supervisor of the Young Offenders at Portland applies the finishing touch to the fine work his students have done on the fingers of this post at Litton Cheney



Getting Started

Notify AONB and discuss the way forward (options may include local volunteer or contract help) Contact: **James Purkiss** dorsetfingerposts@gmail.com who will check historical records for Arm, Roundel/Finial replacement as required.

Alternatively contact **Kate Townsend**: kate.townsend@dorsetcouncil.gov.uk or T.Munro@dorsetcouncil.gov.uk at County Hall



- **Photograph** the post, arms, roundel, Identify the location (perhaps with OS Grid Refs and/or GPS/Google maps etc). Complete an AONB 'restoration' form – The project may contribute some materials FoC.
- **Canvas for Help & Funds** - local support, sponsors,, builders and suppliers, organise a team of volunteers/helpers and perhaps even auction a 'letter'! Currently some funding may be available from Campaign for the Protection of Rural England – assuming only traditional materials are used (i.e. no plastic) . Contact Linda Williams on info@dorset-cpre.org.uk.
- **Plan and Cost the work** — with our tech guy **Roger Bond**, 01258 860008 roger@normtec.co.uk who coordinates work with our suppliers and partners in Dorset, in particular with Blandford and Dorchester Men's Sheds and HMP at Guys Marsh or Young Offenders Institution at Portland.
- **Dismantling** be careful, measure up, collect fallen arms etc.
 - identify roundel style and bracket system, missing damaged parts – and the post!
 - Ideally arrange for the removal of the wooden arms c/w lettering.
 - AONB will, if necessary arrange for removal and/or installation of a new post by DC Highways.
- **Order new parts** directly or via AONB/normtec e.g replacement letters/ brackets, roundel etc. Replacement arms should be hardwood only and may be sourced locally. Indeed, AONB/normtec hold many stock materials including oak boards, new posts, new brackets, letters/numbers paint, fasteners etc -:obtained from our tech guy Roger Bond.

Work In Practice – an Overview

- Dismantling –
 - Care needed to avoid damage particularly the cast brackets as these are often badly corroded on the supporting spindle – indeed, often impossible to remove!
 - Save and refurbish as many letters and parts as possible
 - Usually new wooden arm required – but keep letters attached to the original arm if possible as this can aid/speed refurbishment.
- New Parts
 - POST replacement can be arranged when damaged; together with a supporting spindle
 - New alloy characters, roundels / brackets etc available from local foundries and normtec
 - New 'FINGERS' must be seasoned/dried HARDWOOD only
 - Oak recommended - preferably native/local Dorset oak
 - Sealed and finished in an approved paint system
 - Use original design (early round or more recent pointed ends)
- Restoring original parts- options include local volunteer or contract help. e.g volunteers may chose to remove lettering and/or paint the new arm and/or repaint & affix letters -: or contract out these tasks.
- Assembly. DC Highways will usually remove/install posts FoC – arranged by AONB. Details depend on the particular design – and there are many variations – see later information
- Photograph for posterity and AONB newsletter
- Care & Maintenance – arrange an annual clean – TLC will prolong life of the new fingerpost!

Design Variations occur over time.

Roundel here is 'London Underground' style and the brackets are older imperial Ring/'Meccano' style on a cast iron post.



Dismantling

Often the brackets and ring component of 'meccano' style are impossible to remove and an '**upgrade**' using new post and geared brackets is recommended.



- Remove existing arms – usually a matter of unbolting - but otherwise a saw! Unless you do the work locally, keep the letters affixed on the arm as this avoids loss, can aid cleaning and provides an original template.
- Remove pyramid cap or roundel by way of a grub/hex screw and/or bolt – although this is often corroded in place!
- Removal of brackets can be very difficult due to corrosion of both an inner supporting mild steel spindle and grub/hex screws and/or bolts. Fasteners vary but usually obvious – a few inches from the top of the post. Release agents can be useful - otherwise drill them out!
- If dismantling is not possible and the post is corroded ask AONB to get DC to remove complete post and/or bracket assembly for workshop dismantling. Often the geared bracket assembly can be saved and refurbished as a complete unit. Otherwise a new post and/or new brackets are required.



Posts & Parts

- **Beware** post and the bracket systems vary!
Very early posts can be cast iron & maybe tapered – definitely worth preserving.
- **Later posts may be imperial or metric.**
Measure internal and external diameters and wall thickness of the post accurately. Exact replacements may not be possible so ensure the post and bracket dimensions are compatible and will fit!
- Remember there are 3 bracket types shown here.



The roundels vary too! Cast iron or alloy.

..... And TWO styles in three flange diameters to suit different post/bracket systems.



Old style systems can be 'upgraded' with new posts and 'geared' brackets

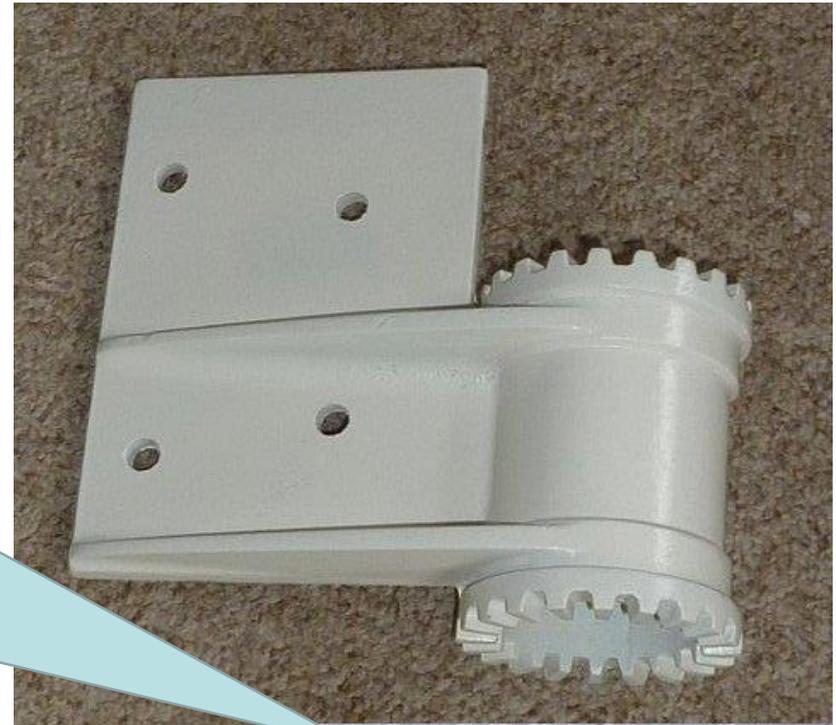
Bracket types

Ring/'Meccano' style brackets.

The ring is steel whilst the supporting arm can be steel or brass

'Geared' brackets are aluminium alloy.

'Plain' brackets (with no gearing) can be cast iron or alloy



Posts & Parts (2)



The Fingerpost 'upgrade' at Rodden with new post, brackets - plus a pyramid cap. New fingers and refurbished letters were completed by YOI, Portland

New Parts and Materials

Available direct from suppliers or from AONB/normtec

We hold most new and second-hand stock materials

**Posts, Spindles, Brackets, Characters, Wood,
Fasteners and Paints.**

Naturally, we can offer some discount on purchases, not only due to bulk buying but also as part of our contribution for using traditional materials and community input.



Dorset Suppliers include:

Coles Castings:

Roundels/Letters and Pyramid Caps

Jamie Ross Furniture:

Dorset Oak cut and shaped

Quickfast, Dorchester:

Stainless fasteners

Brewers: Paints

Bridport Foundry:

older style roundels

Normtec: Oak, spindles, brackets, sockets and all of above



Post Replacement

If corrosion prevents dismantling on site then DC Highways will remove the post c/w brackets for workshop dismantling. However, often only the bracket assembly can be recovered after cutting away the old corroded post.



New steel posts are available; grit blasted and ready primed. (if not ready thoroughly degrease and abrade before painting in a rust preventative paint system). Also available ready Galvanised – but ensure a suitable primer is used.

To allow secure fitting of plain or geared bracket systems three holes should be drilled and tapped to receive 12mm grub screws/bolts to allow centralising and fixing the bottom socket which aligns the inner spindle/bracket assembly vertically.



Assembly of the 'Geared' System

Note: Inside the post fits an inner steel spindle

Parts assembly illustration

Assembly is from bottom up.....

- Post Socket (shown red here)
 - Inner Spindle (shiny grey)
 - Half brackets (white) -:usually a pair
 - Full top bracket (grey)
 - Top collar (white)
 - Locking ring (mustard)
 - Pyramid Cap (Black) -: or roundel
-
- The socket fits inside the post, the spindle fits inside the socket and brackets fit over the spindle
 - Adjust bracket directions and screw down locking ring firmly to lock the brackets in their final relative positions.
 - Fit pyramid cap or roundel on the locking ring using greased grub screw(s) – ideally drill into the ring to allow the grub screw to be recessed/flush with the cap – fill with putty, smooth and overpaint black to minimise theft!



Assembly of the 'Geared' System (2)

Parts assembly from bottom up.....

- Post should be drilled and tapped to accept three 12mm grub screws approx 1" & 3" & 6" from the top and at 120° to centralise the bottom geared socket (shown yellow here) which slides inside the post, drilled and fixed temporarily with the grub screws. Note only screwed in half way to allow next step !
- The Inner pole slides through the bottom socket. The position of the spindle is important and must be such as to fit the brackets and top collar just over the threaded section. Assemble the brackets temporarily as shown and mark/drill and tap the spindle. Use a 12mm stainless steel bolt or grub screw to lock the spindle length.

Note: if doing this in-situ (ie vertically) beware the spindle disappearing to the bottom of the post !

Now secure the other two grub screws through the collar and firmly against the spindle.

Tip: use copper greased stainless steel 12mm hex/allen grub screws to ease future dismantling but -
- preferably hidden/recessed, filled in flush (e.g putty) and painted over for protection and security!



The Ring/Meccano System

- Comprise 2 or 3 iron 'rings' clamped to a 4" diameter pole – often badly corroded in place. If unbolting is possible these will require grit blasting to remove all old paint and corrosion – together with the 'meccano' brackets
- Rust preventative paint system is needed together with all stainless steel bolts to prevent staining.
- Note: Assembly needs care to ensure horizontal alignment of the rings and brackets. Use only stainless steel nuts/bolt washers etc
- Tip drill one hole at a time when assembling the arms 'on-site' to align horizontally
- Touch up any minor paint damage.



Not squiffy like this !



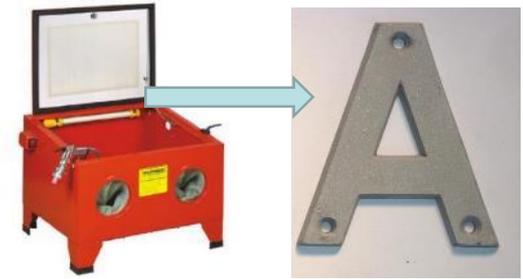
Ring/Meccano style brackets can be steel or brass

Refurbishing old characters

However, an excellent job can be achieved by mechanical or manual sanding – you will need a selection of files and abrasive papers/discs – a small vice and power drill/tool with sanding disc accessories will help - but be prepared for some elbow grease too!



Ideally grit blasting the post, brackets and letters provides the best mechanical key and finish for re-painting.



The original aluminium alloy characters may be 'cast' or 'pressed' and should be cleaned of all paint and corrosion back to bright metal: front, back and sides



Often the front face is easiest to prepare when still on the old finger as the letters are still screwed down – when loose do the back - : and then the sides with a file. Finally drill/countersink the screw holes to remove old paint/corrosion



New Characters

New character castings are available from 'Coles Castings' – <http://www.colescastings.com/> available in either rough cast (top row) or....Fettled/filed/sanded (row 2), with holes drilled/countersunk (row 3) These stages can be done by Coles , normtec or DIY. Optional blasting will provide the perfect finish for painting - bottom row).

Letters, numbers and distance fraction plates are all available in both 2 ½" and 3" sizes.

Some 'specials' can be hand made by normtec

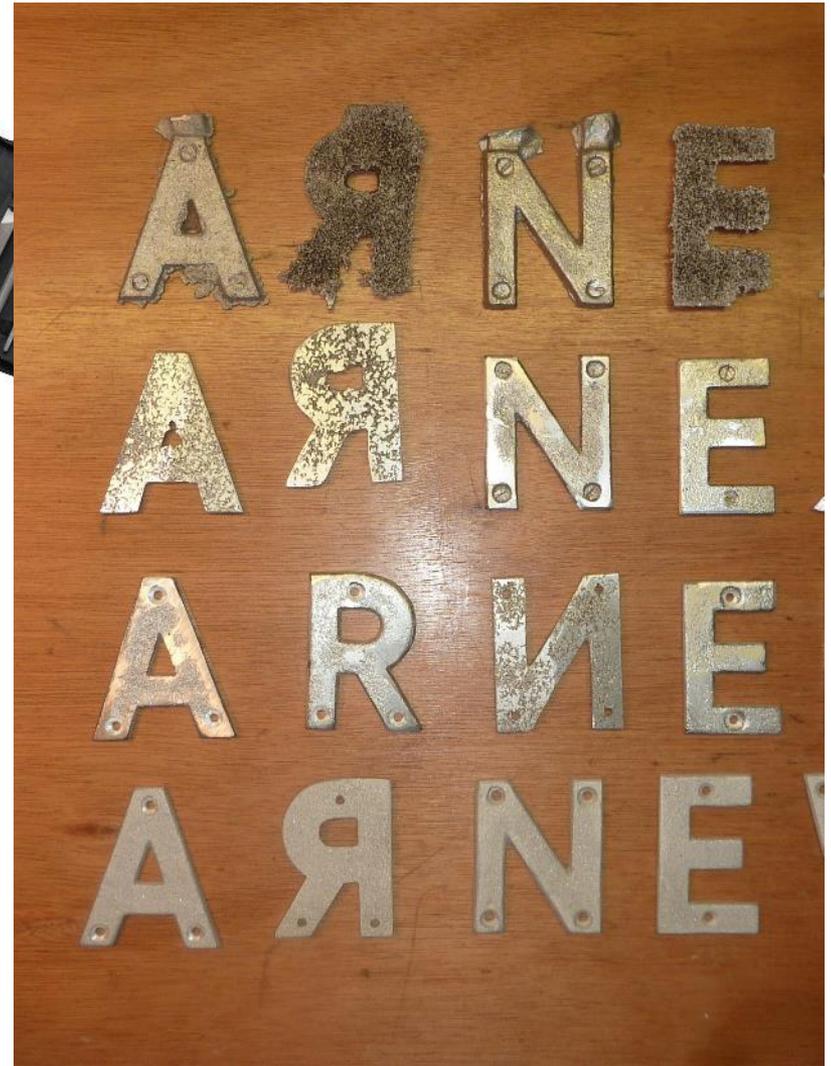


Preparing new characters



You will need a small vice, hacksaw, selection of files and abrasive papers/discs – a power drill/tool with drill bits and sanding disc accessories including a metal countersink to prepare the fixing holes for the small countersunk screws.

1. First hacksaw the metal casting tang and any larger areas of surplus alloy.
2. Fettle/file all the sides – which are chamfered – keep them this way.
3. Drill and countersink all fixing holes.
4. Sand back and front faces with 'medium' grit papers to provide a good mechanical key for painting (ensure all casting sand has been removed) alternatively grit blast.



We have, and will continue to provide workshop sessions for volunteers to learn and practice preparation and painting.

Painting Schedule

Metals



Painting the brackets and letters by spray if you have the kit but by hand can be equally good.

Metal Preparation: Remove **ALL** old paint: manually abrade, or preferably grit blast with aluminium oxide grit 30, to Swedish Standard SA 2½ or 3 to provide a roughened surface profile for a good mechanical key.

- 1. Acid Etch Primer for Aluminium alloys e.g. available as spray can from Halfords etc.
- or Adhesion Primer Suitable for galvanised and aluminium substrates – e.g. Rustoleum Combiprimer 3302: Note apply next coat shortly after (15 - 30 mins) - while still a little tacky!
- 2. Primer Undercoat e.g. Rustoleum Combiprimer or Seajet underwater primer 011 for coastal areas. Recoating time: ~24h at ~18°C
- 3. Base/Top Coats Good quality black or white paint for metals e.g. Rustoleum Combicolor 7300. Recoating time: ~24h at ~18°C. Full cure 7 days

Tip for painting letters & numbers: Brush both sides thinly and quickly in a gloved hand (marigold type): avoid 'runs'. Lay freshly painted characters face up to cure on steel/plastic wire/net stretched across a frame – this allows both sides to be covered in one application - with only trivial 'sticking' on the back face.

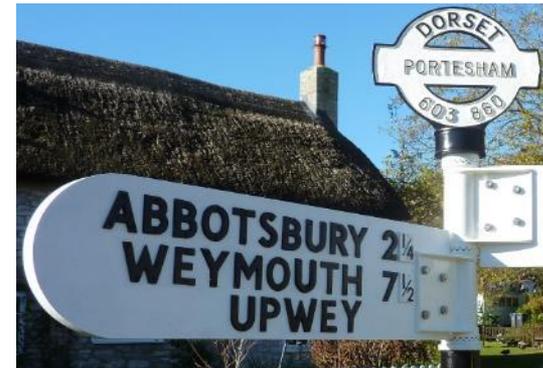


- # Letters and whole numbers should be finished in BLACK SATIN
- Brackets and number fraction blocks finished in WHITE GLOSS
- NOTE: A few arms such as RED posts and PRIVATE LANES are finished in red or green paint respectively and letters are finished in contrasting white satin Rustoleum Combicolour.
- **As all paint systems - observe re-coating times and conditions, Health & Safety etc.**

Painting Schedule

Wood

After shaping and sanding, prepare the timber, traditionally oak, by wiping with a cloth dampened with methylated spirits to remove surface tannins. The wood must then be primed and multicoated with microporous coatings ONLY to allow the wood to 'breath'.



E.G. 2 coats of primer/sealer e.g Zinsser Bulls Eye 1-2-3 primer/sealer or Crown Trade PSB Stain Block Primer. Finish with 2-3 more of satin white; **Sadolin Superdec Woodshield is highly recommended** (or Dulux equivalent) allowing 24 hours between coats

Letter Assembly

Arrange the characters on the arm, generally in the original format – agree exceptions with AONB

- Great care should be given when fixing to align parallel.
- Use a square and straight edge to align/position ALL the characters on the arm BEFORE marking and fixing.



Do not overtighten fixing screws – use only very low torque setting if using a power tool – otherwise you will strip the drive slots!

Spacing is crucial and a trial layout by eye is essential.

Tip: Mark and predrill the screws holes for each character - noting cast letters may vary a tad. (So keep them in order) Use countersunk stainless or brass 4 gauge x 1/2" screws (15mm x 3mm). **NOT coated/treated mild steel.** 'Poizdrive' is easiest to fix without the screwdrivers slipping and scratching the new paint ! When in place touch up stainless screws heads in black top coat – this prevents water ingress and looks good!



Bracket & Finger Assembly



An earlier Slide (11) described how the brackets must fit tightly on the spindle as the top ring is tightened

When the finger is completed the bracket may be fixed with stainless steel coach/carriage bolts – ideally 10mm x 45mm long assuming a 25mm oak finger (1" thick)

Align the finger against the bracket at right angles allowing 2mm clearance (this allows for a little horizontal adjustment later when assembling on the post spindle)

Pencil Mark each hole accurately on the finger and remove bracket.

Drill out each hole with a 10mm wood bit (ideally from both sides to ensure a clean cut).

Re-align the finger and insert the four pre-greased stainless steel coach bolts (you may have to re-drill to get them all in and to ensure the oak and bracket remain at right angles)

Tap the bolt head to impact on the oak and tighten each washer/nut (which should draw the square under the bolt head into the oak).

The bracket/c/w finger is now ready to assemble on the spindle when on-site

Photo

Site Assembly - the Post



- **New Posts** - Dig out 18” diam hole approx 18” deep - sufficient to secure the post in concrete
- Drill a 10mm hole in the bottom section of the post approx. 6” from the base and fix at least one long steel bolt securely – this will prevent the post from turning.
- With the socket and spindle already in place lift the post into position and secure vertically while applying the concrete mix. use a fast set mix with ballast
- When the concrete has set apply some bitumen paint to base.

In Situ modifications sometimes necessary - An additional bolt was required here to fix a wobbly spindle



- **Existing Posts** - Clean and prepare the post for re-painting. This may require full paint removal or in some cases removal of a thick plastic covering if this is in poor condition! Best done with power tools such as a disc cutter/grinder - although a scraper or an old kitchen knife can do a fair job)
- Galvanised posts will require an special attention so as not to destroy the treatment and will require a special / adhesion primer before painting.
- Often the socket and spindle are already in place and will require some preparation – usually de-rusting with a wire brush and chemical treatment – then liberal application of waterproof grease.

Site Assembly of Geared System

- Lift the fingers c/w brackets over the spindle and into position in order – usually a pair of half brackets and a third full bracket on top. Align as required.
- Add top collar and screw the securing ring tightly to engage all the bracket gearing.
- Add the pyramid cap or align roundel to position and secure tightly with a short 12mm grub screw ensuring the head can be ‘buried’ – then conceal with putty and overpaint black.
- A second grub screw can now be added for additional roundel security – pre drill 4mm and drill a 10.5 mm hole right through the roundel boss and securing ring into the spindle. Tap a 12mm thread grease and fit a longer grub screw – again allowing for concealment.



photo

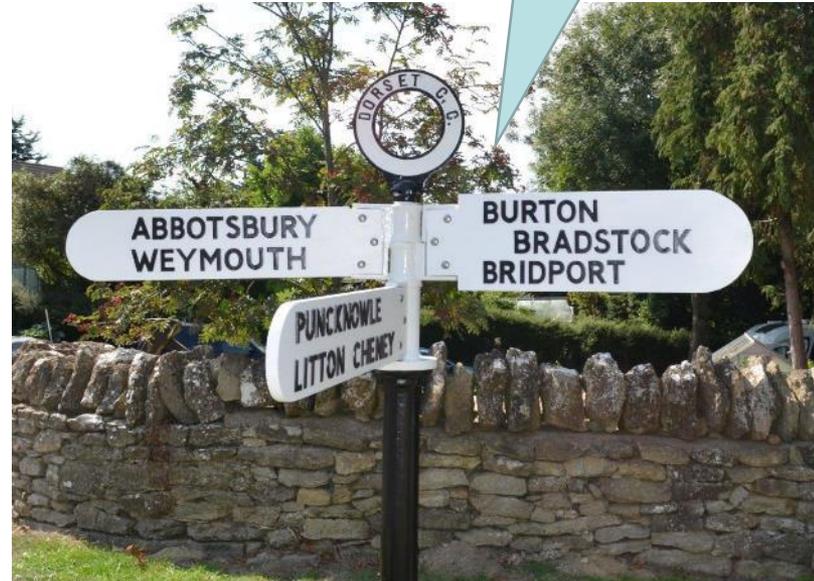


*Roundel Assembly
for hidden security
fixings!*

Site Assembly -Variations abound!

Early Cast iron post and brackets

- If brackets are non-gearied/plain and have been refurbished in the workshop, these may be bolted to the new finger as previous slide (21) or
- If brackets are already in place due to corrosion etc, bolt the fingers to existing bracket. This is often the case with old cast iron brackets and will be two handed job ensuring horizontal alignment of each finger whilst drilling the oak to match the bracket holes.
- If so designed: Add top collar and screw the securing ring tightly to secure the assembly
- Non geared or damaged systems may require an additional grub screw – or even a special collar/fitting to fit a cap or roundel.
- Add the pyramid cap or align roundel as described in previous slide (21)

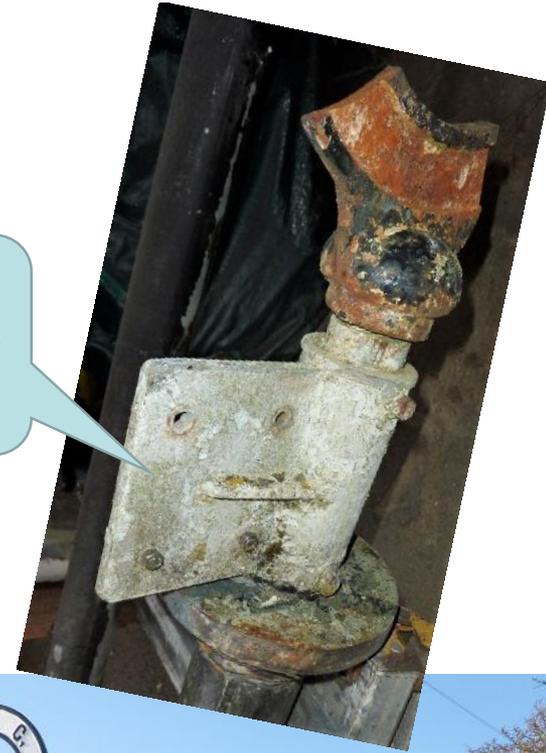


Variations Before & After Refurbishment

Older style roundel with large imperial boss required fitting with a bespoke collar



Plain cast alloy bracket corroded in place with broken iron 'polo' roundel work required a replacement with modified boss to fit the spindle stub



Plain alloy brackets fixed with small steel grub screws – corroded of course – requiring to be drilled out and replaced with larger 10mm stainless



More Variations



A most unusual wooden white post at Cerne Abbas with additional LOCAL destinations on bespoke bracket/roundel assembly



Round or Pointed Fingers ?

Variations throughout the County include a wide range of height in both cast iron and steel tube. Early fingers had rounded ends but more recently pointed ends are common in the North of the County - a cost saving exercise on softwood but now we work exclusively in oak!



A early example of an all cast iron tapered post in Portland - originally from the former Dorchester foundry.

Cast iron fingers too!

Similar can be found in former Hampshire villages





Before & After



- Bolt new arms to the brackets
- Use 10mm stainless steel coach bolts

*Job Done – well almost –
bar spell check !*



Handsome Heritage

Just two of our past refurbishments



Nice work from our FP Champions from Hilton and Verwood setting the standard !

Finally, **DO** look after your fine efforts and don't forget to arrange some annual **TLC** –: a wash with soapy water to clean and remove traffic grime & mould etc.

Be proud of your local legacy !