

VICTORIAN RAILWAYS.

Way and Works Branch (81)
16th July, 1947.

PAINTING OF STRUCTURES.

The following instructions relating to the painting of structures are to be observed. In certain cases some departure may be desirable or necessary from the instructions laid down and discretion must be exercised.

RESIDENCES.

The following is to be regarded as a standard treatment except where groups or settlements of houses are being painted at the same time, when discretion is to be used as to the colour schemes to be adopted, but the specification as now set out is to be observed as far as practicable using the minimum of darker colors for picking out purposes.

All new weatherboards, pickets, rails for pickets, and posts, before erection are to be painted with an oil primer back and front. All saw cuts through such boards must also be primed and all boards must receive one coat of undercoat paint before fixing, whenever practicable.

EXTERIOR.

Walls, timber (asbestos cement not to be painted).	Light buff no dado.
Architraves and wood sills.	Light buff.
Window frames and sashes	Light buff.
Doors with frames and architraves	Mid. brown.
All louvres	Light buff.
Barge and fascia boards and angle stops.	Mid. brown.
Barge caps and bed moulds.	Mid. brown.
Plinths	Mid. brown.
Spoutings.	Mid. brown.
Down and vent pipes.	Light buff.
Dressed timber in fencing) Gates, posts, plinth- and gates.) Pickets.	Mid. brown. -Light buff
Verandah posts.	Mid. brown.
Tubular steel gates.	Mid. brown.

Roofs, if previously painted in red oxide. Red oxide. One coat should be sufficient. Red oxide is not suitable where water from roof is to be used for domestic purposes.

If galvanised corrugated iron in new or good condition. No paint.

If galvanised corrugated iron is showing signs of rust it must be cleaned and painted with the following mixture:-

Cement one (1) bag
Light Battleship grey paint one (1) gallon.
Terebene one (1) pint.
Boiled linseed oil six (6) gallons.

In cold weather the quantity of oil necessary may have to be increased.

For terne coated iron use Red Oxide paint.

Brickwork. No paint.
but if previously colored clean down and treat with Cement wash

Asbestos cement to be left in its natural state. No paint.

Flywire on doors and window frames Paint (if necessary) with what is regarded as a dry brush.

INTERIOR.

Ceilings and drop 'off' white.
The drop to be taken down to the picture rail (if any) or to the tops of windows or doors as may suit the size and height of the room.

Walls of rooms with no picture rail or are low may not require a drop.

RESIDENCES.
Interior
(cont.)

Walls (bedroom) between the drop and the skirting.	Bisbuit (3 parts White U.C. to 1 Light buff Fin. tinted with Mid. Brown Fin.)
Walls (living room, kitchen and passages etc. between the drop and the skirting. Window frames and sashes, doors and architraves and skirtings (bedroom) Do. (Living room, etc.)	Light buff. Light buff Deep buff.
Dadoes in Kitchens or passages, etc.	Deep buff.

Plywood wall linings not already painted are to be strained in light color and finished in an eggshell gloss.

Plastered walls previously distempered or papered are to be washed down, cleaned or stripped and all cracks or voids made good, apply one (sharp) coat of white lead paint (white) and finish in oil paint wherever practicable.

Brickwork in fireplaces if already painted	Solpah Red or brown
brickwork in fireplaces if unpainted	Clean down and apply weather-proof oil.

STATION BUILDINGS
Exterior.

Walls, timber no dado (asbestos cement not to be painted).	Light buff.
Walls, dado - if provided	Mid. brown.
Sills and architraves	Mid. brown.
Window sashes and brames.	Light buff.
Doors with frames and architraves	Mid. brown.
All louvres, large and small	Light buff.
Barge and fascia boards and angle stops.	Mid. brown.
Barge caps and bed molds.	Mid. brown.
Plinths	Mid. brown.
Spoutings	Mid. brown.
Down and vent pipes.	Light buff or Mid. brown.
Check gates and all gate posts and end posts of fencing	Mid. brown.
Pickets, rails for pickets, and posts, dressed.	Light buff.
Guard fences, (Posts and rails to be painted with oil primer before erection)	White
Roofs	Dame as D.Ks.
Galvanised iron ridging etc. showing rust (On slate roofs).	Structural grey.
Stucco work on buildings	Light cream.
Corrugated iron walls to buildings and yards, if require painting.	Structural grey.
Cornery posts, caps and plinths to the above	Mid. brown.
Verandah posts and cantilevers.	Mid. brown.
Curtains to cantilever verandahs	Light buff.
fascia to verandahs	Mid. brown.
Fascia caps and bed molds.	Mid. brown.
Purlins, rafters etc. (Mild steel erections.)	Light battleship grey.
Rust patches showing on under side of roofing iron.	Structural grey.
Timber purlins etc. to verandahs	Light buff.
Brick chimneys if previously colored.	Cement wash.
New weatherboards to be treated as indicated under 'Residences'.	
Interior. Ceilings and drops of all offices and rooms.	'Off'white.
Drops to be taken down to picture rails, conduit used for wiring, the tops of windows or doors at a level to suit the size and height of the room.	

STATION BUILDINGS

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Interior (cont.)

Walls of offices between the drop and dado.
Walls of offices dado (to four feet above floor)
Walls of waiting, bicycles, storage and staff rooms.
In the walls of these rooms the dado to be from 4'6" to 6' high according to circumstances.
Window frames and sashes and doors and frames.
Architraves, window nosings and skirtings, cupboards and counters (if not stained)
See note under 'Residences' re plaster walls.

Light buff.
Deep buff.
Light buff.
Deep buff.
Deep buff.
Deep buff.

REFRESHMENT ROOMS.

Enamel to walls and ceilings (Kitchen and adjuncts).
Refreshment buffets, dining rooms etc.

Off white.
Same as Stn. Bldgs.

YARD OFFICES AND DUNDRY BUILDINGS OF SIMILAR NATURE.

Same treatment as Station Buildings.

SIGNAL BOXES.

Exterior.
Interior.

Same as station buildings.

Ceiling and drop. Drop to be down to the top of windows.
Walls doors windows and trim generally
Skirtings and lock set seats
Round fireplace and handles and lock area of door stiles.
Levers and bootplate.

Off white.
Eau-de-nil (Light green)
Deep buff.

Black.
See Page 159 of General Appendix.

VARIOUS.

Letter boxes.

Post Office red.

Indicator boards - parcels, Ladies, Mens, etc.

Standard white letters on a black ground. Stained and varnished.

Clocks (platform and inside)

Mid brown. Letters and figures to be aluminium, boards black, posts white. Grey stippled black with hard gloss finish.

Lamp posts and other standards
Station name boards

Acid resisting paint for urinals black or red. Black (No station name)

Ladies and Mens Lavatories, Suburban Area only (Refer to instruction in regard to method.)

Urinal stalls. (Monier only)

Platform seats (outdoor)

Lamp, battery and relay boxes. (Battery boxes situated internally to match the general finish)

Structural grey. Light cream & Mid. brown.

Hoardings

PUMP HOUSES. AND WORKSHOPS.

Externally doors and windows and trim generally to follow practice laid down for station buildings.
In pump houses inside dado up to 4' or to a rail.
Cupboards, bins, stands, etc. and guards to machinery in pump houses.

Black.
Black

STRUCTURAL
IRON AND
STEEL WORK.

Chip and wire brush clean and cover all bare metal with:-

'Ruskilla' or similar paint preparation may be used when directed in lieu of this standard treatment. Usually it is applied when appearance is of little account and to work of lower importance.

Standard red lead priming consisting of 38 lbs. red lead to 1 gall. raw linseed oil, then, one or two coats of standard paint consisting of 75% red lead and 25% red oxide mixed with 50% raw and 50% boiled linseed oil.

TANKS
Interior.

Mild steel tanks of recent construction have been coated internally with red lead. These are to be repainted with the same material before the existing paint becomes perished. Any portion of the old coat that has lost its bond with the tank must be scraped to clean steel before repainting.

Same as above for iron and steelwork.

Old steel or iron tanks whose walls are oxidised and pitted and corrugated iron tanks are to be coated internally with ----

Tar, Lime and cement mixed as directed and applied hot.

The surface is to be thoroughly freed of all scale and rust by chipping and wire brushing and one coat applied to a perfectly dry surface.

The coat to consist of 3 gall. distilled tar to 5 lbs. of neat cement and 1 1/2 lbs. of slaked lime. The tar to be heated and the lime and cement thoroughly mixed with it and the mixture applied hot with a stiff bristle brush.

(The bottoms of tanks badly pitted are to be treated with a layer of Neuchatel asphalt in accordance with a special instruction.)

FIRE PLUGS
& MILLCOCKS.

The position of every Departmental millcock, fireplug and stop valve must be plainly indicated in bold 6" vermilion letters on a white background on the nearest suitable object (where there is no suitable object an indicator board should be provided) as follows:-

- Millcocks by the letters M.C.
- Fireplugs " " " F.P. and
- Stop valves" " " S.V.

The distance in feet must also be shown in accordance with the following example:-

M.C.
12 ft.

Fire boxes and hydrants.

Post office red.

WATER
CRANES.

Columns -

- Bottom 6 feet
- Remainder
- Show G.P.M. (to nearest 50 galls.)

Black
White
2" black figures
6" above top of
black base
facing track.

Combined tanks and cranes.

- Jib
- Show G.P.M. (to nearest 50 gallons)

White
2" black
figures in
centre of jib
facing track
when hooked
back.

OVERHEAD
BRIDGES.

R.S. Joists and/or timber beams over track.
Beams not over the track.
Picket or rail fencing
Top rail when serving as a guard rail.
Hand rail to steps.
Timber deck to overhead bridges and deck
of signal bridges.

Grey
Deep buff.
Deep buff.
White
Mid. brown.
2 coats of
bituminous
emulsion and
sand. (Should
be done in
the winter.)

STOCKYARDS.

The outside of tumblers and of gates at
the loading front of the yards.
The inside of tumblers and of gates at the
loading front and the whole surface of
other gates.

White

Light buff.

SIGNAL MASTS.

All masts, carrying power operated signal
arms or lights in the Electrified area
The motor mechanisms and light signal cases
and ladders.
Timber landings.
Masts, carrying power operated signals or
light signals outside Electrified area.
All equipment fitted on these masts.
Strip from foundation to a height of 1 foot
up mast.
Timber landings.
All masts carrying mechanically operated
signal arms or discs
Strip from the foundation to a height of
one foot up the mast.
Ladders and fittings on the masts.
Timber landings.
Masts carrying Wig-Wag or flashing light
signals at Level Crossings.
Strip from the foundation to 1 ft. up the
mast.
Fittings on mast to be painted.
Signal bridges carrying signal masts
Wooden footwalks on these structures.

Structural
grey.

Black
Grey.

White
Black.

Black.
Grey.

White

Black.
Black.
Grey

White

Black.
Black.
Structural grey
Grey & sanded.

Signal arms and Discs --- The majority of
arms and discs are coated with vitreous enamel
and do not require painting. Where paint is
required, SIGNAL RED should be used on arms
and SIGNAL RED and BRILLIANT GREEN used on
Discs and point indicators.

LEVERS.

Lever in signal boxes should be painted in
accordance with instruction on Page 159 of
General appendix. i.e. :-
Lever working Signals
" " Points or gates
" " Lockbars
" " Cross locks - Top half
" " - Bottom half
" " Overhead section switches
" " Tramway signals and derails
" " Platform indicators -
" " Top half
" " Bottom half
Pilot levers and closing levers Top half
" Bottom half
Spare levers
Footplate
(Quadrant levers on station platforms.)
(Lever operating signals at P'unger.)
(Locked points.)
Other levers in yards

Red (Signal red)
Black
Light blue
(Traffic blue)
Light blue
(Traffic blue)
Black
Green (Brilliant)
Red & Black bars.

Red
Black
White
Black
White
Black
Red with black
handles.

White with
black handles.

STAFF INSTRUMENTS.

Staff instruments in Signal boxes, etc. Signal red.

STAFF EXCHANGE BOXES.

Staff Exchange Boxes, or Switching boxes. Signal red.

Automatic Staff Exchanger Boxes White

OUTSIDE BOXES.

All other outside boxes, such as Relay, battery, cable and Junction boxes. Structural grey.

Special colours for signalling equipment are:-

SIGNAL RED ----- B.S.C. Colour No 37.

BRILLIANT GREEN ----- " " " 21

TRAFFIC BLUE ----- " " " 69

All woodwork etc. White

Hinges and iron straps, and gate stop shoes. Black.

INTERLOCKED GATES.

VARIOUS.

Buffer stops White

Station yard wooden entrance gates. White

Wooden occupation gates White

Metal gates and iron posts. Aluminium

Crossing and crib wicket gates and guard rails at pit crossings. White

Rail stand layout. Tarlene.

PROCEDURE TO BE FOLLOWED IN PAINTING.

GENERAL.

1. No paintings shall be done upon exterior surfaces that are damp or in foggy, wet or frosty weather.
2. Ample time for drying and hardening should be allowed between successive coats of paint. White lead paints should be allowed at least 24 hours to dry between successive coats and no reduction of time should be achieved by the addition of driers.
3. Each coat of paint when dry except the finishing coat is to be properly smoothed down by the use of waterproof sand paper when necessary, water and pumice stone or other damp process. Dry rubbing down must not be permitted.
4. All cracks in plaster or wood work to be made good all all knots in woodwork to be either cut out and stopped or effectively sealed with best shellac knotting.
5. No paint is to be applied to new lime plaster until it is perfectly dry and aged.
6. Ample time should be allowed for new cement surfaces to dry and become inactive before being painted.
7. All paints, stains and varnishes are to be entirely free from skins or other coarse particles and must be strained before use where necessary.

NEW WOODWORK.
(Interior and exterior.)

All surfaces to be painted must be clean and any roughness treated with glass paper. All screw and nail heads are to be driven or punched below the surface.

NEW WOODWORK.
(Interior and Exterior cont.)

Knotting: Before priming, all knots and sappy portions are to be coated with best knotting. Loose knots to be cut out and neatly plugged. A coat of "Sharp" stuff consisting of white lead and turpentine should be painted over knotting before applying priming paint.

Priming: The priming coat is to consist of white lead with an addition of 10% red lead mixed with raw linseed oil, little or no driers to be used. (Soft woods require more oil in the priming coat whilst hardwoods are benefited by adding turpentine to assist penetration. Priming coats should be thinly applied.)

Stopping: After priming, all joints, cracks, holes and defected parts are to be stopped with linseed oil putty. The stopping is to be forced in.

Succeeding coats are to be applied as circumstances and the nature of the work demand. If ready mixed paint supplied by a paint manufacturer is being used, his directions on the container must be closely adhered to.

All undercoats should be the product of the same manufacturer as the finishing coat.

OLD WOODWORK.
(Interior and exterior.)

If the old paint is thick and rough, blistered and/or crazed, it is to be burnt off and thoroughly rubbed down to a smooth surface. Clean down and proceed as for new work.

If the old paint is perished and not unduly blistered or crazed, it is to be thoroughly rubbed down to a smooth surface and cleaned off. All knots where visible to be coated with best knotting and proceed as for new work.

If the old paint surface is in fairly good condition, it may only require cleaning down and smoothing off with putty and touch up where necessary. On such surfaces apply one undercoat and finishing coat only.

NEW LIME PLASTER, ETC.

New lime plaster stucco, concrete and similar materials should be allowed to stand unpainted for from 6 to 12 months. If this is not possible, artificial neutralisers should be used such as a solution of sulphate of zinc dissolved in an equal weight of water. Two coats of such wash should be applied with a 24 hour interval between and before priming is begun.

HARD PLASTER.

Hard plaster surfaces should always receive a thin priming coat of "sharp" white lead immediately after plastering. This opens up the plaster and allows the paint to penetrate, and dry with it. Once the surface has set hard no 'Key' is obtained and scaling generally follows sooner or later. This coat of 'sharp' white lead paint should be given irrespective of whether the surface is to be finished in distemper, water paint, oil paint or paper. (Sharp stuff consists of white lead and turpentine only.)

UNDERCOATS.

One or more is necessary depending on the class of finish desired, each smoothed down before the next is applied. On ordinary work one or two coats should be sufficient. These coats are usually applied flat and have a larger percentage of thinners, proportion of oil and thinners depending on type of finishing paint to be used.

CREOSOTE OR TAR STAINS.

Surfaces previously treated with creosote or other tar derivative stains should be given one or two coats of aluminium paint before the white lead undercoats are applied.

ENAMEL FINISHES.

Enamel finishes require more careful preparation of the undercoats, the last of which is improved by the addition of 25% by measure of the finishing enamel to be used.

FINISHING
PAINTS.

Exterior painted surfaces of buildings should always have a glossy finishing coat. Maximum life demands that an oily coat be exposed to the weather.

WET
OLD WATER
PAINT ETC.
AND PLASTERED
SURFACES.

Wash and scrape so as to remove all loose material, thoroughly rub down, make good all cracks and other voids and touch these up with white lead paint. Apply one coat of 'Sharp' white lead paint and one or possibly two coats if necessary of cold water paint for interior use, applied according to makers' instructions.

OIL PAINT
ON PLASTERED
SURFACES.

Wash and scrape so as to remove all loose material, thoroughly rub down, make good all cracks and other voids and touch up with white lead paint. Apply undercoat or coats and finishing coat in oil paint (finish in flat, semi-gloss or high gloss as necessary). If proprietary paint is used, the makers' instructions must be closely followed.

LOCKS AND
FITTINGS,
etc.

All locks and fastenings and other equipment readily removable are to be removed prior to painting and are to be renovated and refixed in position on completion.

PRE
PRECAUTIONS
WHEN
TURNING OFF
PAINT.

These are to be taken in accordance with Circulars 93/21, 87/22 and 7/33.

TUBULAR
STEELWORK
AND
CORRUGATED
IRON.

Galvanised tubular steelwork and corrugated iron when new or in good condition should not be painted until their condition is such that preservative measures are necessary.

DATE OF
PAINTING
TO BE
SHOWN.

The month and year of the completion of the painting should be shown as follows:-

1. Over the front door of a residence.
2. Over the door of the Stationmaster's office, facing the platform. (where buildings are on the up and down sides of the line on the up side only).
3. Over the door entrance to other office buildings. (Minor structures need not be marked).
4. Midway on the face of the girder at up end of the down side of line of under bridges.
5. Midway on the face of the girder on the up end and on the left hand side on over bridges.
6. Midway on the face of the girder of turntables on the left hand side when facing the table.
7. On the column of steel tanks, signal masts, etc., just above the black base.

BRANDS OF
PAINTS.

The brand of the paint used must be shown alongside the date using the following lettering.

Departmental	N
Butex	T
Triton	G
Majora	M
Spartan	S
Bergers	B
Goodlass Hall	G.W.
Sherwin Williams	S.W.
Tannox	X.

Other proprietary lines will be given other distinctive lettering when they become Stores items.

The figures and letters are to be 1 inch in height in black block characters.

THE MONTH'S REVIEW

Phoenix Speaks For Itself

THE spirited defence of *Operation Phoenix* recently made by the Chairman of Commissioners and his brief survey of the operational benefits that have already stemmed from its partial implementation should remove misconception and a good deal of soft sand from under the feet of uninformed critics of train timekeeping. The adverse effect of the obsolete rolling stock still with us and inadequate track capacity on the running of suburban and some country trains can be, and is, combated by alert running staffs, but the programme of renewals and improvements (hitherto suffering financial and material starvation) must, of itself, occasionally slow down timekeeping.

Greater Operating Efficiency

THE facts of *Operation Phoenix* speak for themselves. As Mr. Wishart pointed out, many improvements have been made in the last two years, in train service, especially for goods, and passengers, country and interstate, through new rolling stock, particularly diesel-electric and electric locomotives. On all important lines, overall schedules have been reduced substantially, and further improvements will follow more new rolling stock. Operating efficiency is now higher. As example, there was an increase of 55 per cent. in goods traffic, last financial year, over the 1939 figure. And the traffic was handled with only six per cent. more train mileage. The average train load increased from 459 to 566 tons, or 23 per cent., and the average truckload increased by 25 per cent. New rolling stock was instrumental in reducing goods operating costs, last year, by over £900,000.

Freight Records

ANOTHER good shot, fired at critics by The Chairman, concerned freight carrying records. At present, he said, the railways are carrying more brown coal and briquettes than they have ever moved. About 40,000 tons weekly now come from Yallourn. Record tonnages of goods are being handled at the Melbourne sheds. A major wheat haul of nearly 50,000 tons a week was recently made to clear country elevators in time for the coming harvest. Everybody will join Mr. Wishart's hope of pursuing *Operation Phoenix* to its conclusion, through progressively improving service to more and more rail users.

They Went By Train And Liked It

MORE than 13,000 scholars from various metropolitan and country high and technical schools went by train recently to sports meetings at the Carlton and Glenferrie ovals. Children from Frankston, Dandenong, Ferntree Gully and Lilydale were taken in either special or ordinary trains, and pupils from such country centres as Echuca, Warrnambool, Bairnsdale, Wangaratta, Moe, Sale, Shepparton and Stawell went to and from Melbourne by ordinary train. Specials were also run from Geelong and Ballarat for large parties of technical students and high school boys and girls. Special trains were also run for a number of sports gatherings at country centres.

All these trains moved without a hitch and there was nothing but praise for the efficiency of the railway arrangements. Many letters came in from head teachers and principals of both metropolitan and country schools expressing appreciation of the excellent service given and the courtesy of railway staffs. The letters (extracts from which are published on page 14) clearly indicate that there is no need to seek other forms of transport when the railways are capable, as they have proved on so many occasions, of handling the traffic efficiently and comfortably. There seems to be a greater appreciation than for a long time of this basic fact of transport life — at any rate in Victoria.

New Suburban Cars

THE construction of components for the Department's 210 new suburban carriages for 30 new seven-car trains is going along well. The prototype motor car from the contractors, the Gloucester Carriage and Wagon Company, of England, is expected to be here early next year. It will be taken to Newport Workshops for use as a pattern for assembling the other cars which will arrive in a knocked-down condition at the rate of two a week. The electrical gear from the English Electric Company is scheduled to arrive ahead of the carriage components, at the rate of one set a week, and the bogies from the makers, Bradford Kendall Ltd., of N.S.W., will come in advance of both at the rate of one car set a week. The components for the new cars will be stored at Brooklyn and dispatched to Newport, as required, to feed a production line producing three assembled motor cars a month. The trailer cars, which will be supplied by Martin and King from their Springvale works, will be delivered at the rate of four a month. The first seven-car train, of three motor cars and four trailers, is expected before the end of the year.

Station Colours

THOSE who, in the post-war years, have followed the modern trend of decorating their homes in bright colours, sometimes wonder why the Railways do not use contemporary colours. Actually, the selection of suitable colours and colour combinations for stations and other Departmental buildings has been the subject of exhaustive tests and experiments for a long time. In 1936, the Commissioners directed that a combination of cream and green be adopted as standard, but in the light of subsequent experience, it was decided, in 1940, to discard these colours, subject to review in special cases. Since then, the external painting of suburban stations has been mostly limited to a light and dark stone combination. Now, however, a darker brown paint is to be used as one of the colours, to give a stronger contrast. These colours have been proved the most suitable to withstand smoke and dust in industrial areas and in station yards where there is much shunting. They do not show up nearly so readily as others, the effects of deposits of brake shoe dust.

Four Of A Kind

NOW that summer's honeyed breath is blowing softly (with an occasional north wind diluting the honey) the season of picnics is upon us. Week-end trains to the beaches and hills carry carefree crowds for a day's break from the routine of work. With smooth travel, attractive fares and freedom from road risks, the railway is the obvious choice for many picnickers. None knows this better than the railwayman himself; indeed, right at the start of the season, three railway groups held picnics on the same Sunday. The Train Lighting Social Club went to Wattleglen, about 500 car builders from Newport Workshops enjoyed an excursion to Seaford and the New Boiler Shop Social Club picnicked at Werribee. On the following Sunday, members of the Machine Shop Social Club (also from Newport Workshops) had an outing to Bacchus Marsh by special train.

OUR FRONT COVER.

The Department enters the new year with an important phase of *Operation Phoenix* (the £80 million 10-year rehabilitation plan) completed. All the locomotives ordered in the United Kingdom have now been delivered. Our front cover shows one of the last of the 60 J class arrivals being unloaded in Melbourne by the Harbour Trust's crane *Jumbo*.

The Victorian Railways News Letter



Plan

B

THE train recently work

THE town of the... at consi... will have to re... the railways a... they say, for g... and for caref

The report... in the central... parts of the... information is... workers living... large proport... More than hai... suburbs work... of the southe... north of Bour... travel to work... or west of Kin... st. and Spenn... very large nu... gested parts...

As far as th... that the most... reduce conce... nearer their... reaches two a... will be best se... urban railway

January 1955