

# PROCEED ORDER

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*An ARHS steam special to Gympie worked by C17 974 hauling airconditioned carriages passes the disused signal cabin at Beerburrum on Sunday the 4th of September 1994. The signal cabin had long since been decommissioned due to the commissioning of CTC between Caboolture and Gympie in 1982. The mechanically operated points in the foreground were operated from an Electrically Released Ground Frame out of view behind the photographer.*

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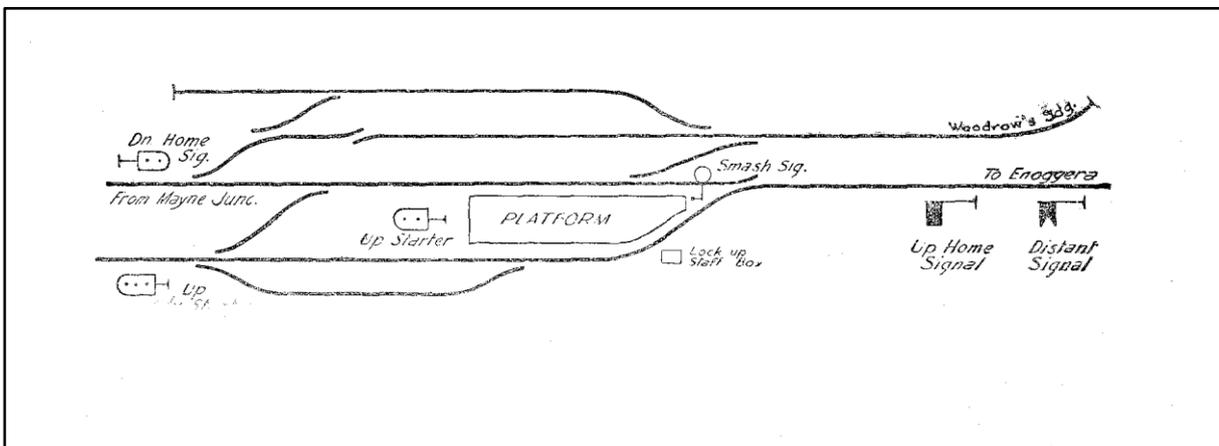
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# Newmarket Smash Signal

Smash signals were used in several places in Queensland, generally on the single-track North Coast, Central and the Southern Lines. Newmarket in Brisbane was another location where a smash signal was installed at the junction of the double track from Mayne and the single track towards Enoggera. Some of the detailed instructions from the QR 1935 General Appendix follow.

*Newmarket is worked as an unattended staff station. The layout is as under. A Smash signal is provided at the Enoggera end of the station and applies only to Down trains proceeding from the double to the single line.*



Above: The layout of Newmarket station from the General Appendix showing the basic layout and position of signals (colour light, semaphore, and the smash signal)

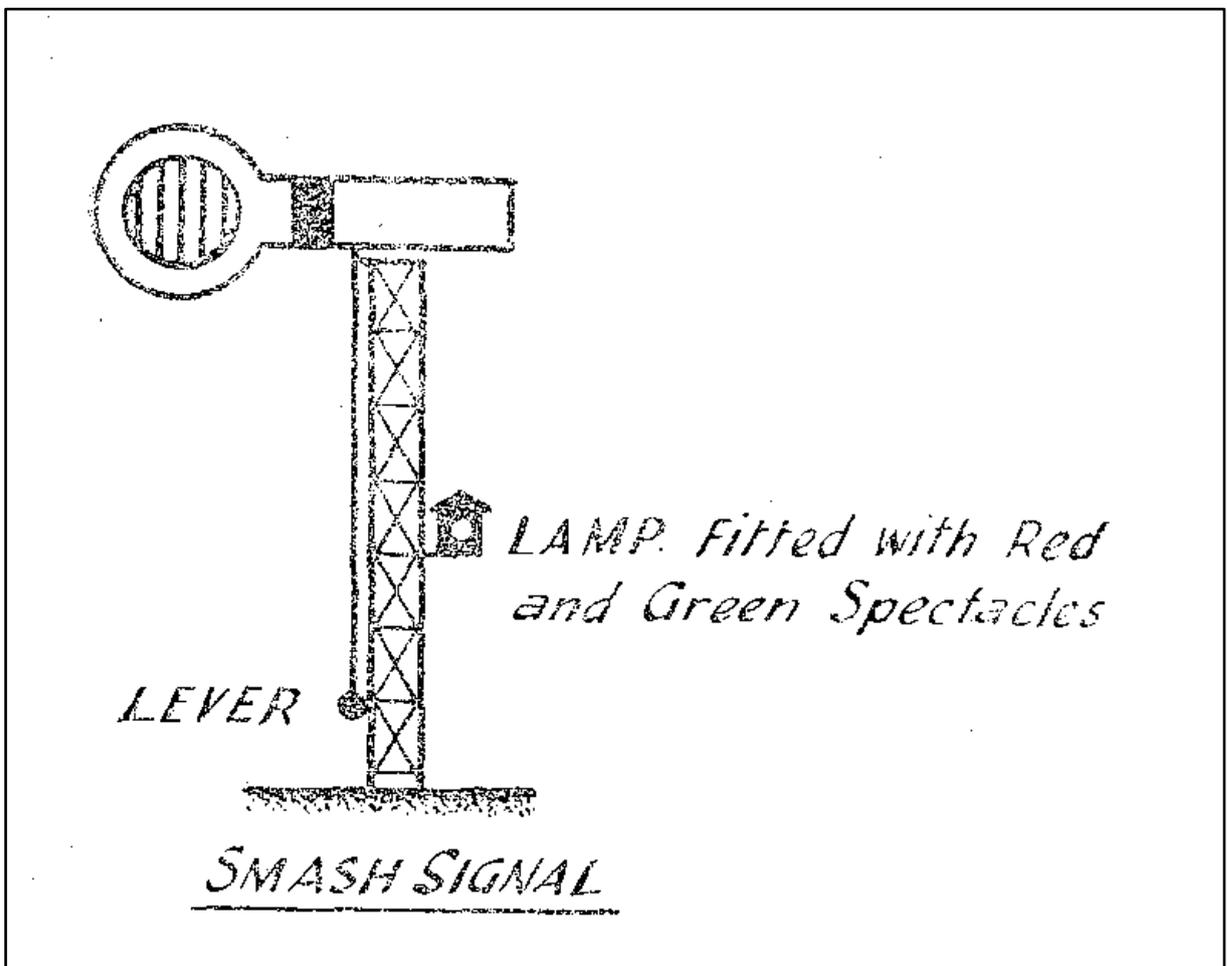
All points except those applying to No. 2 loop have been attached to ground levers fitted with keylocks, operated by a keylock installed in the cabin, the withdrawal of which locks all Up and Down main line signals except the Smash signal at "Stop". The points attached to No. 2 loop and dead-end have been fitted with non-reversible levers and HP locks. The levers in use in the signal cabin are,

- |       |                                 |
|-------|---------------------------------|
| No.3  | The Up Home signal,             |
| No.4  | The Up Starting signal,         |
| No.6  | The Up Advance Starting signal. |
| No.23 | The Down Home signal,           |

The signals controlled by levers 4, 6, and 23 must be left in the "Clear" position, but before shunting operations are commenced the guard must place the signals controlled by levers 3, 4, 6, and 23 to "Stop," and obtain the key from the apparatus in the cabin, which locks these signals at "Stop". The guard can then unlock and operate the necessary ground levers, and on completion of his work must return the key to the apparatus and

replace signals controlled by levers 4, 6, and 23 to the "Clear" position. The key of the apparatus is in the cabin in a small frame on the floor on the left-hand side of the levers.

The Smash signal, which applies only to Down trains proceeding from the Down main line to the single line, is of the vane type and the arm has a large red disc, and a lamp showing a red or green light on the post for use at, night time. When the red light is showing the Smash signal is in its normal position foul of the rails, and a green light shows when it turns clear of the rails. The signal normally stands foul of the rails so that an engine using the road would, if it did not stop, break the arm. When the fireman works the lever, the signal turns clear of the rails, and the points close, making the road for a train to proceed.



Above: The diagram from the 1935 General Appendix showing the basic configuration of the Smash Signal.

The interlocking gear which connects the points gear with the signal is locked at the Smash signal and can only be released by a key which is attached to the Newmarket-Enoggera train staff.

The Up Distant signal stands permanently at "Stop," and all trains must make a momentary stop at this signal in accordance with rule 82a. The normal position of the Up Home signal is at "Stop," and the station mistress must not place this signal to "Clear" unless when required to admit an Up train, when she must see that the road crossing is clear of traffic and the gates are shut across the roadway.

When there is a train standing or shunting at Newmarket, the guard of such train shall be held responsible for seeing the Up main line is clear before the station mistress places the Up Home signal to the "Clear" position to admit a train.

A lock-up box painted white, secured by an ordinary points key, is placed on the left-hand side of the Up line at the Enoggera end of the yard, in which is kept the train-staff box for the Newmarket-Enoggera section. All Up trains must enter the station well under control and the driver (or fireman) will throw the staff or ticket hoop into the lock-up box. On no account must the staff be handed to the driver of a train waiting to proceed over the Newmarket-Enoggera section, but in all cases the staff or ticket must be dropped into the lock-up box. Further, the fireman of the waiting train must not insert the key and release the points until the last vehicle of the approaching train has drawn into the station clear of the outgoing line. The lock-up box is so constructed as to permit of the staff or hoop being thrown into it through an opening at the top whilst the engine is passing; but should the driver (or fireman) fail to do so the driver must see that the fireman goes back and puts the staff or ticket hoop in the box.

Down trains must be stopped at the platform clear of the Smash signal, without fouling it and the fireman will obtain the staff, unlock the apparatus, and make the road for the train to proceed. If the train is to travel on ticket, he will take a ticket from the book, entering the train, date, and time of departure on both butt and ticket, place ticket in hoop, replace the staff in box, take the hoop to the driver who, if the guard is ready, will then proceed on the journey. If the staff is to be taken forward, the fireman will hand it to the driver instead of the hoop.

After the fireman has relocked the lock-up box and handed the staff or ticket to the driver, he will rejoin the engine. The interlocking is so constructed that the points and Smash signal will be set in the reverse position for the passage of the train, and will fall to the normal position as soon as the last wheels of the train have cleared the resetting bar.

*It is necessary for every Down train to stop at the Smash signal, even although the guard of another train is passing the Down train through.*

*To ensure the apparatus working correctly, when the key attached to the train staff is placed in the lock on the Smash signal post, it is imperative that the key be turned back one and a-half turns, and while the key is still held in that position, that the lever be lifted up smartly as far as possible, and the key then turned one and a-half turns forward, and withdrawn from lock. Before the key is withdrawn it is necessary to take the weight from the lock by lifting the lever slightly. The lever, Smash signal, and points will then remain in the reverse position, and when the last vehicle of the train has cleared the resetting bar they will automatically go back to normal,*

*The guard of a Down train must in every case look back and see that the points and points indicator fall to the closed position as the wheels of the last vehicle clear the resetting bar. He can see the points in the daylight, and the points indicator will show position of the points at night. The position of the Smash signal arm must not be taken as an indication that the points have gone back to the normal position. In the event of a failure he must stop the train and take necessary action to rectify.*

*The guard, driver, and fireman of each train passing Newmarket Station must give strict attention to these instructions, and they will be held equally responsible for seeing that the instructions are carried out.*

*The maintenance inspector, when passing Newmarket must see that the points, interlocking, &c., are in good order, and shall see that the arrangements are being properly carried out.*

*If it be necessary by a disarrangement of staff working to send a train forward from Newmarket when the staff is at the other end of section, the staff officer at Enoggera, after the usual "Line Clear" messages have been exchanged, may authorise the station mistress at Newmarket to unlock the cabinet in her office and take therefrom a master key (which will unlock the Smash signal points) and hand it to the guard, but the guard must not use this until he has spoken to the staff officer at Enoggera and satisfied himself as to what is to be done. The train to be sent forward on "Line Clear" will thus be enabled to go forward, but, before it leaves, the guard must return the master key and see it is locked up by the station mistress at Newmarket in the special cabinet provided for the purpose. The station mistress*

at Newmarket must not unlock the cabinet and release the master key without instructions from the staff officer at Enoggera.

As far as possible shunting at Newmarket should be carried out without it being necessary for the engine to pass the Smash signal, but where a train has to pass the Smash signal from the Down main line during shunting operations, the Smash signal and points must be set in the usual way for the engine to go ahead. After passing over and clearing the resetting bar, the points and the Smash signal will fall back to normal and the engine can then push back on to the Up main line, but to get back to the Down main line the points and Smash signal must be reset and the person resetting them must hold the ball lever up firmly until the engine and its load have got past the Smash signal post. If the points lever is then let go, the points and Smash signal will remain in the "Clear" position ready for the train to depart towards Enoggera. In the case of trains terminating at Newmarket the Down main line from the Smash signal to the junction of the Up main line must not be used.

It is very necessary that all trainmen understand that the Smash signal points at the Enoggera end of Newmarket are intended to work as shown in detailed instructions, only when engines or trains are advancing from their correct running road into the section ahead.

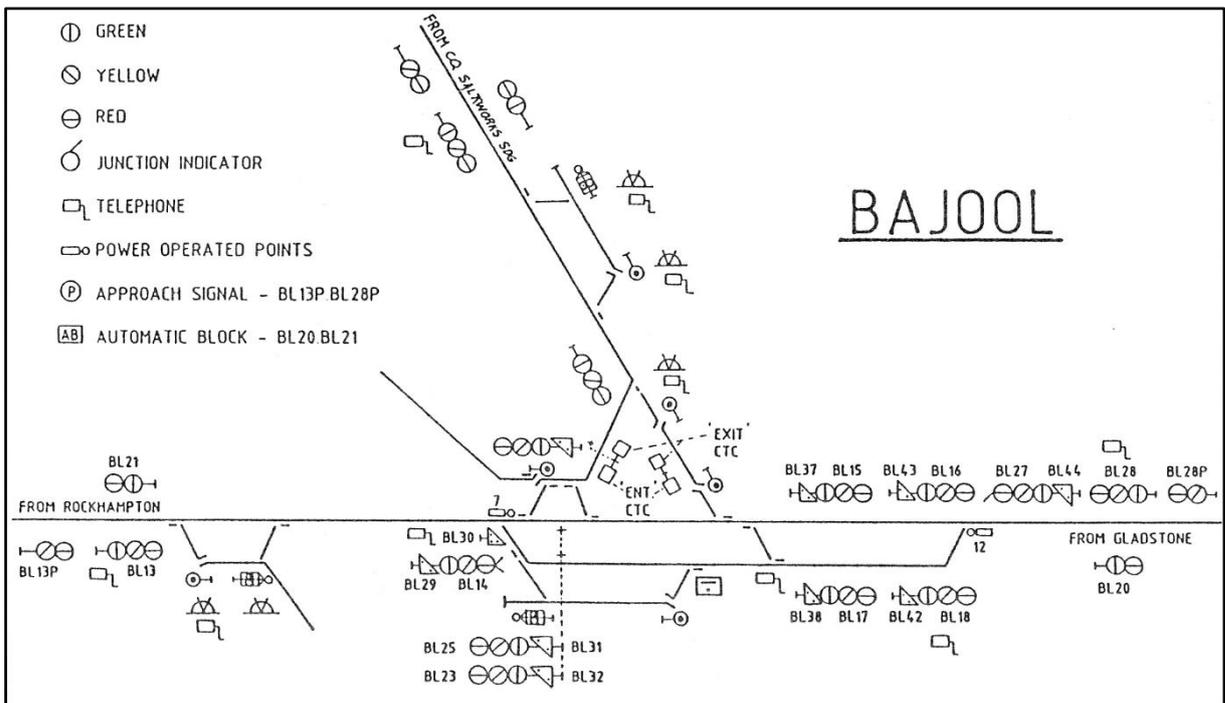
All Down trains running beyond Newmarket must depart from that station from the Down main line over the Smash signal points.

A notice board has been erected at the Up main line near the Enoggera end of the platform and is marked "Trains for Enoggera must not depart from this road". (GA 1935 p62-65)

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## **Signalling Bajool - 1988**

The following signal diagram is dated September 1988 and shows Bajool station, south of Rockhampton on the North Coast Line. Looking near the centre of the diagram below the crossing loop the symbol of a cabin or panel is shown. Considering that this is a CTC station one could assume that it represents a local signal panel, however, it actually shows the position of a local signal panel and a 25 lever high-level mechanically interlocked lever frame. Bajool was a hybrid installation utilizing both a lever frame and a panel for local operation, when released by the Train Controller.



Above: The signalling layout at Bajool in September 1988. A different diagram from July 1975 shows the identical layout and signalling arrangement existing.

When the station was unattended the Train Controller could signal trains through Bajool only on the Main Line and Loop Line. The points at each end of the crossing loop were manipulated with electric points machines and were numbered 7 and 12 using normal CTC equipment numbering. Only when the station was attended by station staff, and the release was given by the Train Controller, could trains be routed to or from the Salt Works branch or shunting of the sidings take place.

To work the station the station staff would request the electric release from the Train Controller, and when given, the 15th lever in the lever frame (numbered 75) was able to be operated. The levers were numbered from 61 to 85. With the release taken station staff had sole control of all points in the yard, and sole control of most signals. Signals allowing trains to depart Bajool towards Rockhampton or Gladstone were dual-controlled with the Train Controller.

The remaining levers in the lever frame operated points and lockbars or released ground frames. Apart from the loop points at each end of the crossing loop, which were electrically operated, all other points were mechanically operated utilizing conventional point rodding. No signals were operated from the lever frame. After the levers had been manipulated and the points had been set for a particular movement the appropriate switch on the signal panel could be operated to clear the signal. Different switches were provided for different routes possible from each signal. Signal BL16 had only one switch as only one possible route exists, signal BL27 had two switches, one (27ML) applied to the main line, and the other (27L) applied to the loop. Shunt signal BL30

had four different switches as four possible routes exist. Although not shown on the diagram a level crossing exists and a switch was provided on the panel to manually lower the boom gates when required.

The only other switches on the panel were "Approach Acknowledge" buttons which were used to cancel a warning buzzer when trains entered the adjacent section heading towards Bajool. A switch to extinguish the panel indicator lamps when the station was unattended was also provided.

Direct current (DC) lamps provided the illumination in the diagram for track circuits, signal indications, point positions, and point free indications. The diagram itself appears to be a timber sheet with a layer of engraved laminex affixed on the surface. Lamp indications have plastic bezels and the track layout is an engraved line which has paint added to show the extent of individual track circuits. The switches used to operate signals were located in rows at the bottom of the panel. The entire panel is mounted in a sturdy steel frame supported on two round steel posts.

The panel survives as part of a private collection, presently in storage until such time that minor restoration work can be undertaken, and the item displayed. The lever frame appears to have been scrapped or recycled by QR as it is not known to exist in any collection, private or public. The building where the panel and lever frame existed remained at Bajool until 2019 but has now been demolished, it had been unused and empty for several years.

An inspection prior to the demolition of the building showed the location where the lever frame stood however the position of the panel adjacent to it was unclear. A poor quality photograph shows that the panel was located behind the lever frame.

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## **SIGQ**

SIGQ was founded in 2003 to provide a platform where people interested in the history and development of Queensland's railway signalling and safeworking history could share information. A Facebook Group was established later and has been very popular with members. Although it has moved and been renamed a web site has been in existence from 2003 and today can be found at <https://sigq.weebly.com/>

A contact form is included on the web site at the bottom of the Home page which can be used to contact this group regarding information on the web site or in this magazine.