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# Shunt Train 100 Up

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**F**rom an early age I was fascinated by trains shunting. Living in western Queensland during the 50's and 60's, the train was the only way in and out of town for most people.

As a kid sitting on the fence watching I had no idea what was going on, the engine was pulling and pushing wagons, wagons were rolling down the track with a Shunter chasing to apply the hand brake, or they would just slam into the next wagon in the siding. So it is no surprise when I got a model train set, shunting was high on the "to do" list. My current layout is small by some standards, a circle of track with two stations with room to add a third one day. Having been to a number of operations sessions on larger layouts with a dozen or so blokes in attendance, the question was how was I going to put operations on my layout? I was looking for something that didn't put guys off with heaps of paper work, yet it was the real thing. I was looking for something I could do myself or with a couple of mates. Plus it could give non rail guys an insight into how things were done.

A few years back, most railways were a common carrier, thus were expected to carry most things to most locations on the network. Movement of goods and freight was managed in two ways. Wagon loads and less than wagon loads. The less than wagon loads on some systems was referred to as "less than car load", (LCL) traffic. LCL traffic is mainly handled through the goods shed or common loading area in the station yard. Each day some stations would allocated wagons for traffic. As much as possible, box wagons were used and 'cranky' or long and bulky loads were loaded into open wagons. Many stations have customers who loaded full wagon loads, these were ordered the day before and as much as possible these orders are supplied from wagons in the yard. If not in the yard the wagon(s) were ordered and conveyed on a suitable shunt. Generally, wagons going to and coming from private sidings were full wagon loads.

Having 45 years of railway operations under my belt, I came up with two different operational systems that could be used on a small layout. One was referring to the Working Time Table were a train is made up in station order. The second was working a shunt train to a station, detaching and placing wagons, and attached wagons as per orders.

The shunt train session is just one A5 card, so us older blokes don't need our glasses. The card showed the train marshalled leaving station "A", a Working Time Table, a list of where wagons on the train are to be placed at station "B", and a list of wagons to be attached to the train. The operation session can be made easy or harder by wagons in sidings called "Hold Backs", in other words, wagons on hand not listed to be picked up. There are various reasons for this, they could be wagons loaded in but not unloaded, empties required for orders the following day, could be employee camp and material wagons, wagons with defects waiting repair etc. to name a few.

**Shunt Card;** to make it easy, and similar to the prototype operations, the card is divided into sections. Top of the card shows train number and day.

**Westgate**

**Train 100 Up** **Wednesday**

Loco	1723			
2 WH	Westage	Wyandra	Empty	Grainco
HSAT	Westage	Wyandra	Grain Bins	Grainco
HJ	Westage	Wyandra	Timber	Mitre 10
P	Westage	Wyandra	Water Tank	Pete's Tank
A	Westage	Wyandra	General	
ABG	Westage	Wyandra	General	
C	Westage	Wyandra	General	
BLV	Westage	Wyandra		

Station	Arr.	Dep.	Remarks
Westgate		12:00	East
Wyandra	12:15	3:45	Detach/Attach
Westgate	4:00		West

**Detach**

2 WH	Grain Siding	
HSAT	Grain Siding	
HJ	Saw Mill	Place on Blocks
P	Ramp Road	Place on Ramp
A	Goods Shed Road	
ABG	Goods Shed Road	
C	Goods Shed Road	

**Attach**

FG/ALG	Camp	Marshalled near Van
5 VJMG	Grain	Marshalled on rear
2 FJS, F, DF	Sleepers	
ALY, QLX, FJS	General	

8 Up Rail Car 13:10 - 13:15  
Main Line to be clear at 13:00 Hrs

**Part "1"** Is the Train Wire or List, it shows the marshalling of the train from its starting point, station "A". All trains have a list showing all wagons on the train in order of marshalling. The list also shows destination and load. The incoming crews need to check the list to ensure the train they are taking is correct, plus it helps to know what's on the train. Train Wires/List can be written one of two ways, in order from the engine to the rear or from the rear to the engine.

**Part "2"** is the Working Time Table. Departure time, time allocated to run the section, time allocated to shunt and arrive at your destination. When modellers are given something like this to do, they like to know how they went. They often ask about the number of moves to complete the shunt, "is that the lowest" etc. There is no correct or wrong way to do a shunt, wagons just need to be left in the correct location to be loaded or unloaded. Often other trains passing through the station during the shunting operations will add extra moves.

Back in the days when shunt trains were the norm, you would find three different ways to do the shunt. The Station Master would have his plan on how the shunt should be done, the Guard who will be doing all the walking will come up with his plan, plus the Driver will also have a plan to coincide with a billy of tea. There are two ways to go about a shunt, first is to stop and plan, and if you don't the second way is to wear out your boots which will take longer.

At stations in the sticks (*out in the bush*) the Guard did the ground work, it is his train and he is the boss. He decides where wagons go on his train. The Driver moves the engine under the authority / instructions of the Guard. The Station Master works the points. If the station has a cabin he would watch for signals from the Guard when wagons are

clear of points and the points need to be reversed. If the points are hand operated points, the Station Master will move from point to point as required for the moves and maybe assist the Guard cutting off. If the station is unattended (*no station staff on duty*), the Fireman will get off the engine and assist the Guard by holding points.

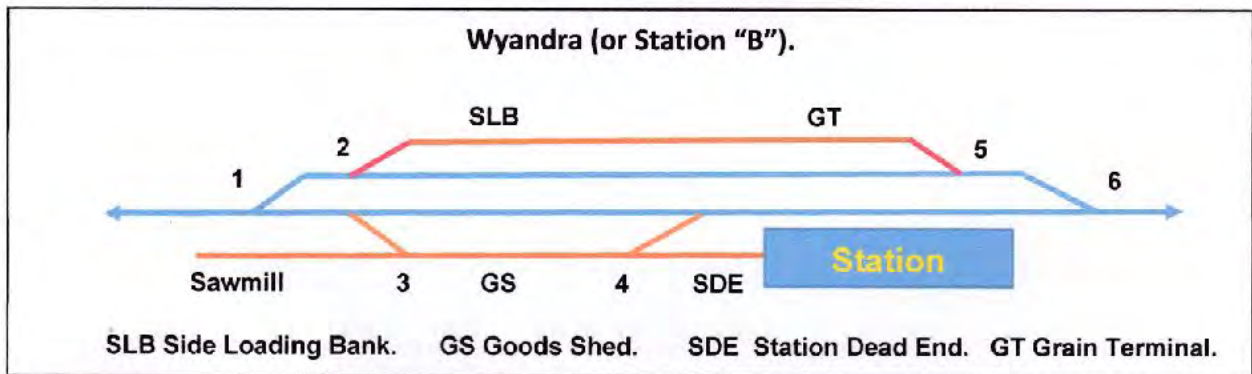
**Part "3"** is the where the wagons needed to be placed at the station so the goods/ freight can be unloaded or loaded. Sometimes due to what's in the siding and where the wagon needs to go, "Hold Backs" will be putted out and replaced to get the detaching wagon into its correct position.

**Part "4"** is the wagons ready to be picked up or attached to the train. This could be wagons loaded for another destination or empties not required.

**Instructions** about other train to pass through the station could also be added, this could say 8 Up Rail Car 13:10 - 13:15 requires the platform. Thus the Main Line need to be left clear for the passage of the Rail Car 10 minutes before the expected arrival.

**Westgate. Train 100 UP. Wednesday.** The Train Wire shows the following. Engine, 2 grain wagons, one open wagon loaded with grain bins, one open wagon of timber, one platform wagon with a water tank, three box wagons of general goods/freight and a Guard's Van.

The train has been made up by the station shunt engine, the engine working the train is attached, crew have checked their train and are ready to go. The fast clock is set and the crew waits departure time. 12:00 comes and the train departs for Wyandra (Station "B"). 15 minutes sectional running has been allocated. Arrival at Wyandra is 12:15. The Station Master admits the train to the loop and the fun starts.



All wagons on the train need to be placed as per the instructions. Two grain wagons and the open wagon with the grain bins are to be placed at the Grain Terminal (GT). The open wagon of timber needs to be placed on the stop blocks in the saw mill siding. A wagon of logs has not been unloaded, (*"Hold Back"*) at the log ramp **1**. The platform wagon with the water tank needs to be placed at the Side Loading Bank (SLB). Three box wagons of general goods is to be placed at the Goods Shed (GS). But, a camp wagon and material wagon located in the station dead end (SDE) are foul of (blocking) No. 4 crossover coming from the Main Line **2**. (*By the way, this is a bad practice and is not be allowed in the rules*). But at times it happens to allow loading.



**1** The wagon of logs is a "Hold Back", to be unloaded it needs to be beside the log ramp, plus the wagon of timer needs to be placed behind it.

In the siding there is a number of wagons listed to go out on the shunt. The camp and material wagons in the station dead end (SDE), has the employee travelling in his camp wagon, these two wagons are to be marshalled near the Guard's Van. Four wagons of sleepers from the saw mill, two box and one open wagons of general goods from the Goods Shed, and five 4 wheeled hopper grain wagon empty are to be marshalled on the rear of the train.

instructions, but that is not necessary, the type of wagon could be used. All up it a lot of fun and it replicates the real thing.

I model QGR railways and have used QR wagon classifications in the

It is something you can do on you own, or with mates. If there is two of you, one can drive the engine and the other works out the moves and shunts. If you have three, one drives the engine, (*Driver*), one works out the moves and couple/uncouple wagons (*Guard*) and the other can set the points (*Station Master*).



**2** Camp Wagon and Material Wagon in the Station Dead End is foul (*blocking access*) of No. 4 Crossover. Shunt engine needs to pick up using No. 3 Crossover

The same set of wagons offer 4 different activities. Wednesday as per the card, Leave station "A East", shunt station "B" and return to "A West", in other words the shunting continues in the same direction. On Thursday the same train comes back from "A East" to "B" and you reverse the moves, leave "B" as you found it on Wednesday and you have the same train as the card. Friday use the same train as Wednesday, but when leaving station "B", the train travels back the "A East, you go back the way you came. Saturday you come back from "A East" and do the same at Thursday and go back to station "A East" on the same section you came on.

Plus if you want to mix things up a bit, change the location of wagons in station "B", this would change your shunt moves. Also, there are times when wagons need to be moved



100 Up is ready to depart after waiting in the Loop for the Rail Motor Pass to arrive.

within the yard. An open wagon can come in on a train loaded with general goods and is placed at the Goods Shed, after being unloaded the Station Master receives an order to send a car. Thus the wagon needs to be moved from the Goods Shed to the Side Loading Ramp for loading. Another small job for the shunt train when in town.

To gauge performance, how did you go with the allocated time on the clock? Did you depart on time or late, how late were you getting back?

At first keep it simple, most locations have shunt trains going both ways (*one going north, an "Up" train and one going south a "Down" train*). The "Up" trains

comes from the city in the early hours of the morning detaching loading and continues on to other stations. This train may also pick up one or two wagons for destinations to the north. The "Down" train arrives late afternoon picking up loaded and empty wagons for the city. Each day the loading can be different changing the shunt moves required. Local "Working Time Tables" can assist in this area.

All up a lot of fun can be had performing prototype operation on a small layout with a minimum amount of rollingstock.....