

SHUNTING, FIXED AND HAND SIGNALS IN SHUNTING

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WHAT DOES SHUNTING MEAN?

❖ As per G&SR

‘Shunting’ means the movement of a vehicle or vehicles with or without an engine or of any engine or any other self-propelled vehicle, for the purpose of attaching, detaching or transfer or for any other purpose;

Shunting is an umbrella term involving many kinds of movements of locomotives, coaches, wagons.

- Changing the locomotive of a train
- attaching/detaching coaches or wagons
- changing the order in which coaches or wagons are arranged in a train



METHODS OF SHUNTING AND THEIR DEFINITIONS

1. **Hand Shunting** is performed by pushing the vehicles manually without help of an engine.
2. **Flat Shunting** is the separation of vehicles in an ordinary yard by continuous forward and backward engine movements
3. **Loose Shunting** means shunting of vehicles which are not coupled with engine and allowed to run forward under their own momentum on being pushed by an engine.



4. **Hump Shunting** : Hump shunting applies to hump yard and means shunting through the medium of a hump - an artificial grade - over which vehicles are pushed up by an engine on one side and are allowed to gravitate down the opposite slope into appropriate sidings. Hump shunting includes loose shunting.
5. **Gravity Shunting** : Gravity shunting applies to gravity yards, In such shunting operations, wagons move down the falling gradient on account of force of gravity and are controlled by wagon brakes .



6. **Fly shunting** means uncoupling of an engine while drawing vehicles and switching it into one line or siding, after being pushed by an engine, have to be separated at the points, while on the move, by the points being sharply reversed between the vehicles or sets of vehicles in order to send them on different lines.



SHUNTING SIGNALS

- (1) A shunt signal is a **subsidiary signal** and shall be either –
 - (i) a **white disc** with a **red bar** across it, or
 - (ii) a **position light** signal.
 - (iii) may be **miniature semaphore arm**
- (2) Shunt signals control shunting movements.
- (3) A Shunt signal may be placed on a post by itself or below a stop signal other than the first stop signal of a station.

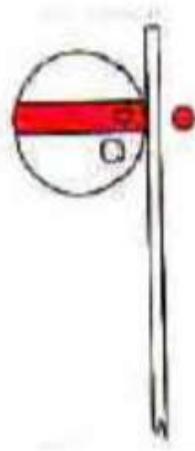


- (4) When a Shunt signal is taken 'Off', it authorizes the Driver to draw ahead with caution for shunting purposes although stop signal, if any, above it is at 'On'.
- (5) When a shunt signal is placed below a stop signal, it shall show no light in the 'On' position.
- (6) In case shunt signals are not provided, hand signals may be used for shunting



Disc type Shunt signal in Two-Aspect Signalling Territory

'On' position



Aspect :
Stop
Indication :
Stop dead

'Off' position

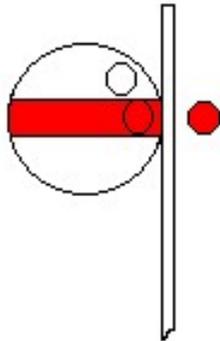


Proceed slow.
Proceed with caution for
Shunting.



DISC TYPE SHUNT SIGNAL IN MULTIPLE-ASPECT SIGNALLING TERRITORY

'On' position



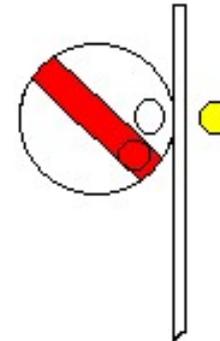
Aspect :

Stop

Indication :

Stop dead

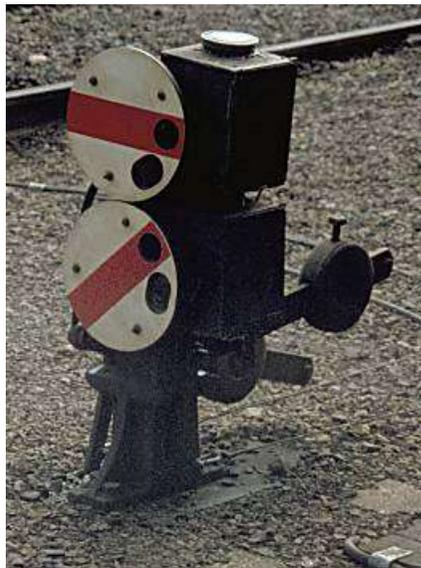
'Off' position



Proceed slow.

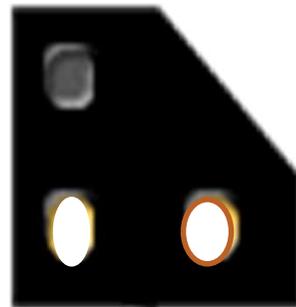
Proceed with caution
for shunting.

More than one shunt may be placed on the same post and when so placed the topmost shunt signal shall apply to the extreme left hand line and the second shunt signal from the top shall apply to the next line from the left and so on.



POSITION LIGHT TYPE SHUNT SIGNAL IN TWO-ASPECT OR MULTIPLE-ASPECT SIGNALLING TERRITORY

'On' position



Position-light
Shunt Signal

Stop

'Off' position

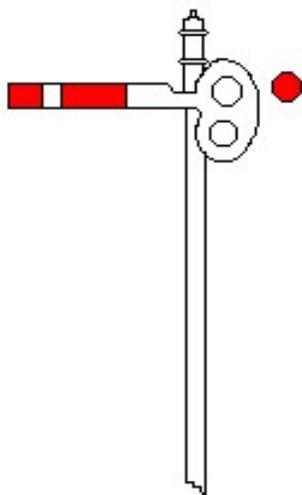


Proceed Slow
for Shunting



Miniature Semaphore Arm type Shunt signal in Two-Aspect Signaling Territory

'On' position



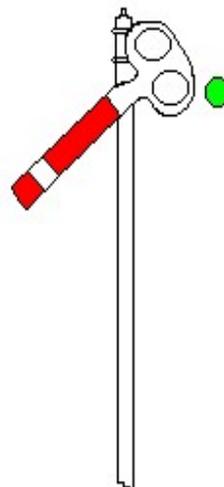
Aspect :

Stop

Indication :

Stop dead

'Off' position

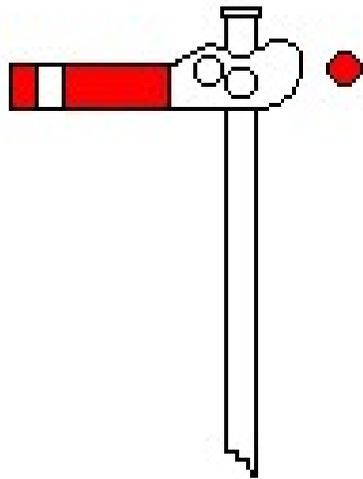


Proceed slow.

Proceed with caution
for shunting.

Miniature Semaphore Arm type Shunt signal in Multiple-Aspect Signaling Territory

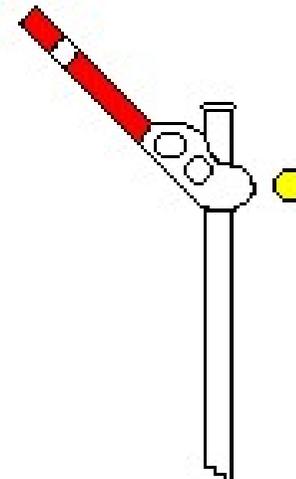
'On' position



Aspect :
Stop

Indication :
Stop dead

Off position



Proceed slow.

Proceed with caution
for shunting.



HAND SIGNALS FOR SHUNTING



MOVE AWAY FROM THE PERSON SIGNALLING

HOW GIVEN BY DAY:

By a green flag or one arm moved slowly up and down as illustrated below:



HOW GIVEN BY NIGHT:

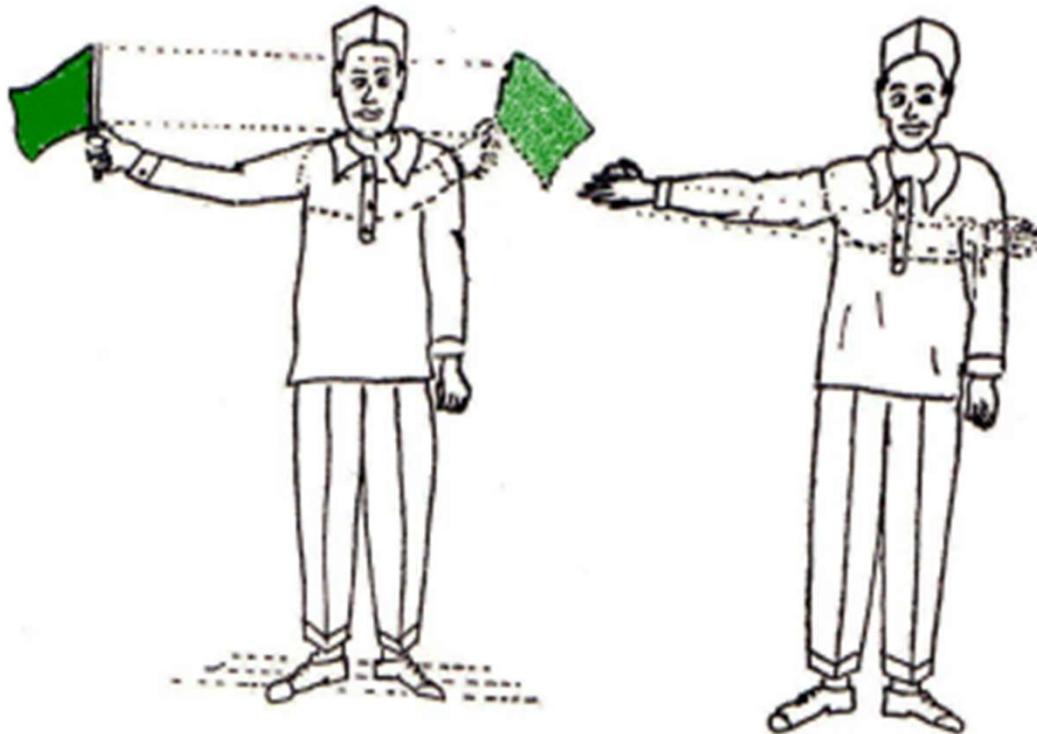
By a green light moved slowly up and down as illustrated



MOVE TOWARDS THE PERSON SIGNALLING

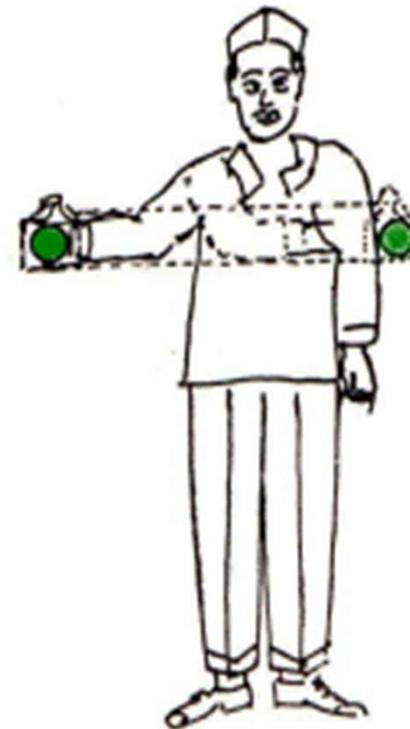
HOW GIVEN BY DAY:

By a green flag or one arm moved from side to side across the body as illustrated below:



HOW GIVEN BY NIGHT:

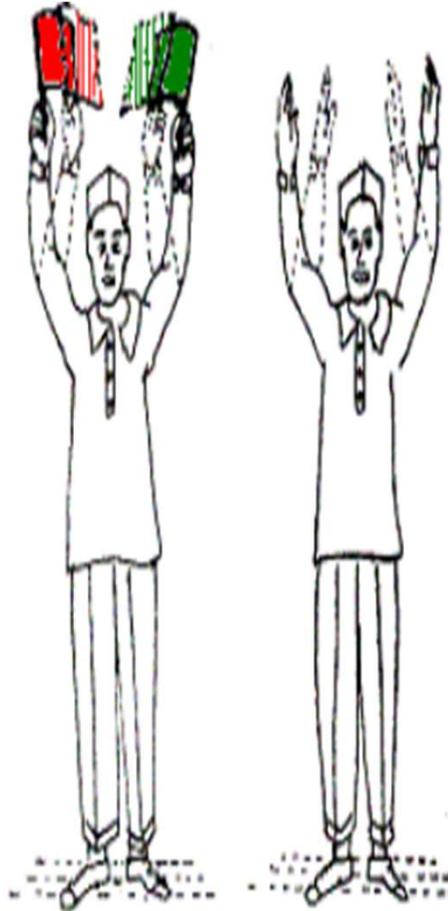
By a green light moved from side to side across the body as illustrated below:



COUPLING TIME

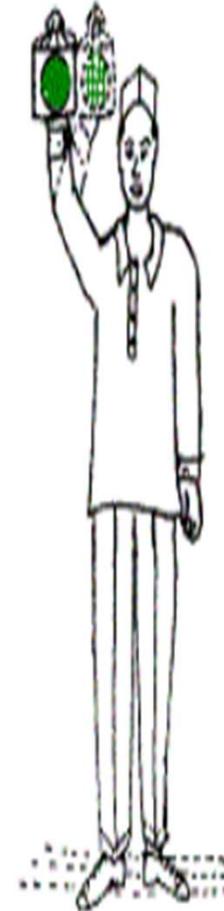
HOW GIVEN BY DAY:

By a green and a red flag held above the head or both hands raised over the head and moved towards and away from each other as illustrated thus:



HOW GIVEN BY NIGHT:

By a green light held above the head and moved by twisting the wrist as illustrated thus:



SHUNTING PRECAUTIONS.

- 1. Shunting is controlled by fixed stop signals or hand signals or through verbal instructions.
- 2. Outer, Home and Last Stop Signal shall not be taken OFF for shunting purpose
- 3. Guard shall supervise shunting where separate shunting staff is not provided.
- 4. T-806 shunting order is to be given to Loco Pilot where required without fail.



- 5. While performing shunting on passenger coaches occupied by passengers, stop the engine with or without coaches at 20 mts and then attach.
- 6. Maximum speed for shunting shall not exceed - 15KMPH.
- 7. Coaching stock, live stock ,oil tanks explosives etc. - 08 KMPH
- 8. If a light engine is to moved on to a line on which passenger train is waiting, points man shall accompany duly intimating Loco Pilot / Shunter.



- 9. Loco Pilot /Shunter shall not unman the engines when moved on passenger train occupied line.
- 10. Whenever engine is to be detached from a Passenger occupied train or empty rake for shorter duration the formation is to be secured by applying SLR hand brakes



AUTHORITIES USED FOR SHUNTING

- **T/806(SHUNTING ORDER)**

 - White paper blue font

 - Triplicate LP/GD/Record

 - STN name date/time,

 - SM signature with stamp given

 - Authority to pass Signal at ON available.

 - Acknowledge of LP and GD taken

- **Within Station Section:**

 - T 806 memo (Shunting Order) is to be given to Loco pilot. At major stations where shunting is performed by separate shunting staff with shunter and if Sr. DOM/DOM notifies then T 806 memo not required.

- **Block Section:**

 - T 806 memo and authority for entering into block section is to be given to Loco Pilot and an operating employee shall travel by engine.



- **Single line Within Station Section**

T 806 memo

- **Single line in Block Section**

- **Token Section beyond station section up to opposite FSS - T 806 memo**

- **Tokenless section Beyond station section up to FSS - T 806 + Shunt Key (or) T-806 + Private Number**

- **Token/Tokenless section beyond opposite First Stop Signal –**

- **Treated as train movement.**

- Loco pilot shall be given an ,

- ✓ Authority to Proceed

- ✓ T 806 memo

- ✓ all relevant signals can be taken „OFF“.



○ **Shunting in the face of approaching train:**

*Generally not permitted.

* If permitted shall be incorporated in SWR.

*SLB/Advance Starter must be provided.

*A shunting warning board shall be provided in rear FSS at an adequate distance.

○ **Double line Within station section - T806**

Memo to be given to Loco Pilot.



DOUBLE LINE IN BLOCK SECTION

- **Beyond LSS when block section is free –**

SM shall block forward and issue T 806 + Shunt Key

Or T 806 with PN

‘Block forward’ means to despatch a message from block station on a double line intimating to the block station immediately in advance the fact that the block section in advance is obstructed or is to be obstructed

- **Beyond LSS following a train** - If SWR permits, then only shunting is to be performed beyond following a train.

Authority T 806 without PN and as soon as train clears next block section SM shall block forward if shunting is not completed.



○ **Shunting in rear block section -**

SM shall block back then T 806 + shunt Key or T 806 with PN shall be given to Loco pilot.

‘Block back’ means to despatch a message from a block station intimating to the block station immediately in rear on a double line, or to the next block station on either side on a single line, that the block section is obstructed or is to be obstructed;



WHEN T/806 IS NEEDED

- Where shunting operations are supervised by Guard/Assistant Station Master, Loco Pilot shall be given Form No.T/806 (Shunting Instructions Form) duly filled in
- At major stations where separate staff viz., out door Station Master/Yard ASM/AYM/ Shunting Jamedar/Shunting Master are provided for supervising the shunting, Form No. T/806 need not be given.

Such stations shall be notified by the respective Sr.DOMs.



Thank
you

