

Southern Pacific Railroad's 1943 brochure presented to their passengers in uniform. For many this would be their first long distant railroad trip.

*Please save this  
for me.*

# Welcome to the Southern Pacific



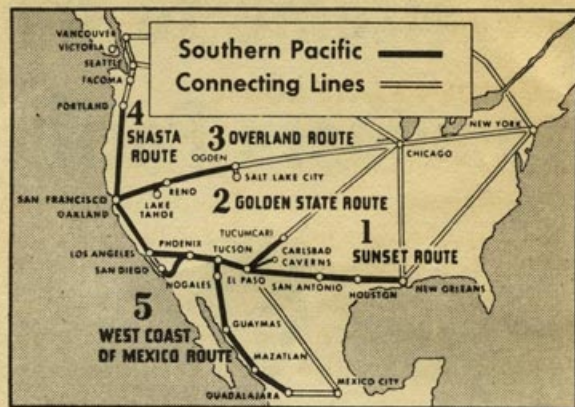
## *To our passengers in uniform:*

We thought you might like to have a little booklet telling something about the territory we serve, and our locomotives, signs and signals. Here it is, and we hope you will find it interesting.

We hope, too, that some day you will come this way again as a carefree, peace-time tourist—so we can really show you this western land—and give you the smooth, efficient train service that is now so difficult to give under war conditions.



## Meet Southern Pacific



Southern Pacific is the West's biggest railroad, and has over 15,000 miles of line, more than any other railroad in the country. We have the longest north and south line, extending from the Torrid Zone (Guadalajara, Mexico) halfway to the North Pole (latitude of Portland, Oregon, is 45° 31' N).

For convenience, we divide our railroad up into five major routes:

### 1. SUNSET ROUTE

Joins New Orleans with Los Angeles and San Francisco, crossing Louisiana, Texas, New Mexico, Arizona and California. Highlights of the trip

are New Orleans, one of America's most fascinating cities; Houston, the largest city in Texas; San Antonio (the Alamo); El Paso; Southern Arizona.

### 2. GOLDEN STATE ROUTE

Connects Chicago and Los Angeles via Rock Island and Southern Pacific. It crosses the middle west and meets the Mexican border at El Paso (Juarez in Mexico is just across the Rio Grande). El Paso is the gateway to Carlsbad Caverns National Park. The route goes through Tucson and Phoenix in Southern Arizona (centers of a great resort and guest ranch region) and serves Indio and Palm Springs, the famous desert resort settlements. Another line from Yuma goes to San Diego through Old Mexico.

### 3. OVERLAND ROUTE

Connects Chicago and San Francisco, via North Western, Union Pacific and Southern Pacific. This was America's first transcontinental railroad, completed on May 10, 1869, with the driving of the Golden Spike.

Highlights of this route are the trip across Great Salt Lake where you actually "go to sea by rail" on the Lucin Causeway (more than 30 miles from shore to shore); Reno, which proudly calls itself "The Biggest Little City in the World"; the High



Sierra, which you cross at 7,000-foot Donner Summit (Donner Lake, which you can see below you, is named after the ill-fated Donner Party of 1847); the Gold Country on the western slope of the Sierra, with its quaint old mining towns; Sacramento, the State capital; Berkeley; Oakland; San Francisco.

#### **4. SHASTA ROUTE**

Runs between San Francisco and the evergreen Pacific Northwest, through the fertile Sacramento Valley, the rugged Cascade Mountains and the green valleys of Oregon. For many miles the track winds around the base of Mt. Shasta, 14,161 feet high. Klamath Falls and Grants Pass on this route are gateways to Crater Lake National Park in Southern Oregon.

#### **5. WEST COAST OF MEXICO ROUTE**

Runs from Tucson, Arizona down the West Coast of Mexico to Guadalajara, where it joins the National Railways of Mexico to Mexico City. Interesting spots along the way are Nogales, Guaymas (Hotel Playa de Cortés), Mazatlan, Tepic.

#### **Southern Pacific side lights**

Southern Pacific serves more national parks than any other railroad: Carlsbad Caverns, Crater Lake, Mt. Lassen, Sequoia, Kings Canyon, Yosemite.

\* \* \*

Southern Pacific hauls more fresh fruits and vegetables than any other railroad in the United States.

\* \* \*

Southern Pacific serves eight of the United States (California, Texas, Oregon, Nevada, Utah, Arizona, New Mexico, Louisiana) and four states in Mexico (Sonora, Sinaloa, Nayarit and Jalisco).

\* \* \*

Southern Pacific crosses more major mountain ranges than any other railroad in the country. Our highest summit is 7,000 feet at Donner Pass in the High Sierra (Overland Route).

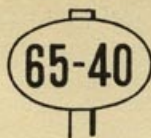
\* \* \*

In freight and passenger business, Southern Pacific is the third largest railroad in the country. Only the Pennsylvania and New York Central are bigger.

\* \* \*

You might be interested to know that Southern Pacific serves more military and naval establishments than any other railroad in the country. So you can see we have a big job to do.

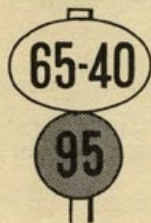
## What the signs mean



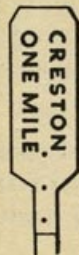
This is a "speed board" showing first, speed limit for passenger trains; second, speed limit for freight trains.



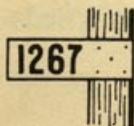
This is a "streamliner speed board." It is yellow. It tells speed limit for streamliners.



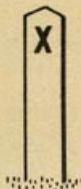
These two "speed boards" show (top) speed limit for regular trains (bottom) for streamliners.



This is a "station 1 mile post" which tells engineer that it is one mile to next station.

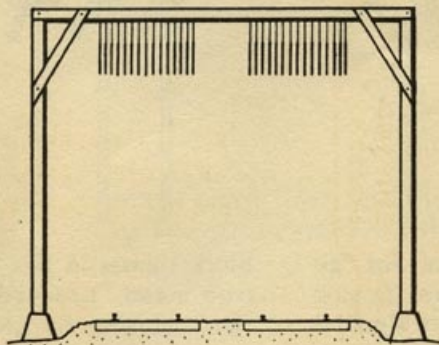


This is a "mile post" which shows how many miles it is to the western end of the line.



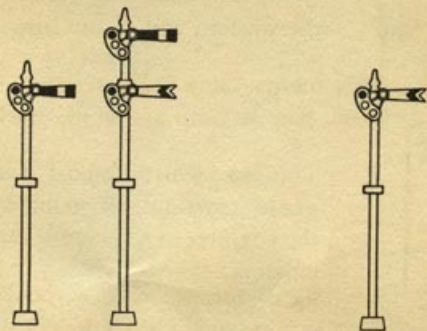
This is a "whistling post" for grade crossings. It reminds the engineer to whistle for the crossing.

This framework is usually called a "telltale" but its official name is "impaired overhead clearance indicator." "Telltals" are placed 150 feet in front of a tunnel or some place under which the train passes. It warns brakemen on freight cars to duck. The things hanging down are ropes.



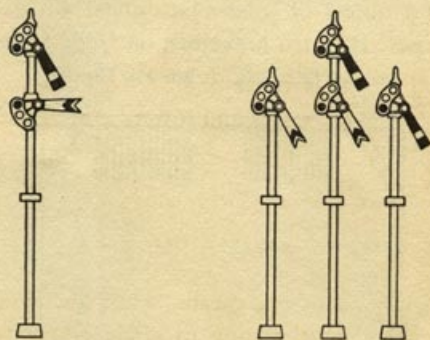


## The language of the block signals



Block signals in this position mean "stop."  
(Lights are red.)

A yellow block signal like this means "proceed with caution."



This means "go prepared to stop at next signal."

Block signals in this position mean "proceed" or "go." (Lights are green.)

## What the brakeman's signals mean



This means "stop." He swings his hand, flag or lamp across the track.



This signal means "reduce speed." Flag or lamp out at arm's length.

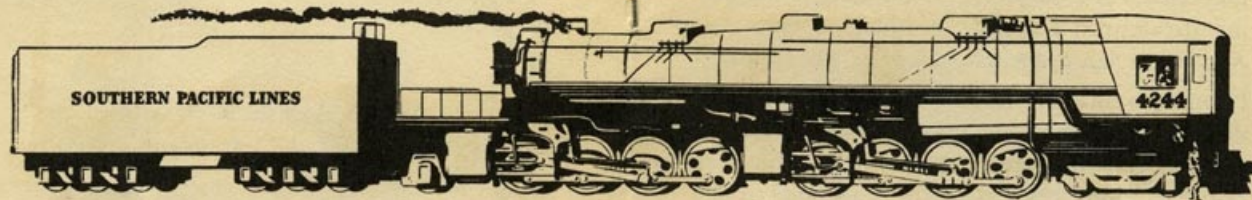
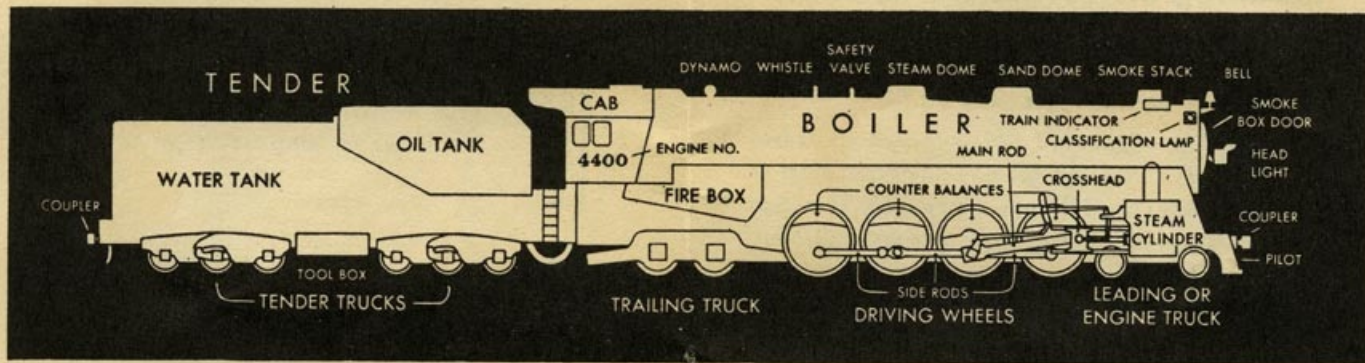


This brakeman is signalling "go." He raises and lowers arm vertically.



This one means "back up." Flag or lamp swung in circle across track.

## ANATOMY OF A LOCOMOTIVE



**4-8-8-2**

If you see a steam locomotive with the cab in *front*, don't be alarmed. We are the only railroad using such locomotives. They are handy in the mountains as they give the engineer and fireman better vision around curves and through tunnels and

snowsheds. Their official name is "Articulated Consolidation," called "AC". Wheel arrangement, 4-8-8-2. Weight of engine and tender, loaded, 1,051,200 pounds. Length of engine and tender, 125 feet, 11 inches. Horsepower: 6,000.



## Meaning of locomotive numbers

On either side of the locomotive smoke stack there are lighted train numbers. All Southern Pacific trains carry such numbers.

All trains going *toward* San Francisco are called "westward" trains and are odd-numbered such as 1, 3, 5, and so on. All trains going *away* from San Francisco are called "eastward" and are even-numbered such as 2, 4, 6, and so on. A train going north from San Francisco is an "eastward" train, because it is going *away* from San Francisco, while a train going north from Los Angeles is a "westward" train because it is going *toward* San Francisco. For example, 99 is the train number of the streamlined *Daylight*, northbound from Los Angeles to San Francisco.

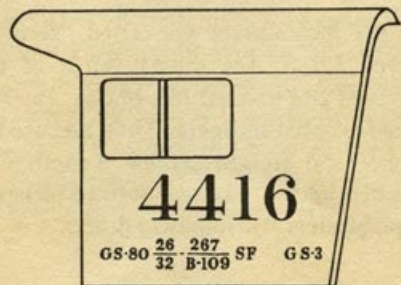
In order to carry all the people wishing to ride on the same train, it is sometimes necessary to operate the train in two or more separate parts, which are called "sections." When a train is operated in sections, the first section carries a "1" preceding the train number (for example, 1-99). The second section carries a "2" preceding the train number, etc. Special trains or "extras" carry the locomotive number preceded by an "X" (for example, X4416).

On the sides of our locomotive cabs there is a group of letters and numbers that give much infor-

mation about the locomotive. Take the example below. Here is what the numbers mean:

4416—Serial number of the locomotive  
GS-3—Class of locomotive  
26 267  
GS-80 ——— SF  
32 B-109

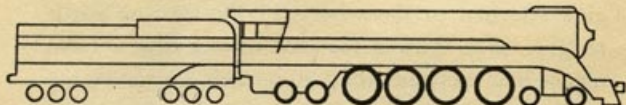
This looks complicated, but it isn't. It tells quickly the important facts about the locomotive. "GS" is short for "General Service" type. "80" tells you that the driving wheels are 80 inches in diameter. "26" is the diameter of the cylinders in inches. "32" is the stroke of the pistons in inches. "267" means that the weight on the driving wheels is 267,000 pounds. "B" means that this locomotive is equipped with a "Booster," a small steam engine attached to the wheels of the trailing truck to give extra power for smooth starting. "109" means that there are 109,000 pounds weight on the trailing truck wheels. "SF" means that the engine is equipped with a "Super heater" and a "Feed water heater."





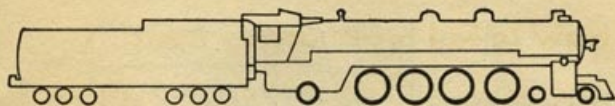
## How to tell locomotives apart

The easiest way to tell locomotives apart is to count the wheels. For example, some wheel arrangements look like this on each side: 00000000. By doubling this number you get a total of 4-8-4. So it is called a "4-8-4" type locomotive. Counting back from the front, this locomotive has 4 leading truck wheels, 8 driving wheels and 4 trailing truck wheels. The wheels on the tender are not counted. All locomotives of the same type have the same wheel arrangement. Following are the most common Southern Pacific locomotives (see pages 10 and 11 for description of 4-8-8-2 locomotive):



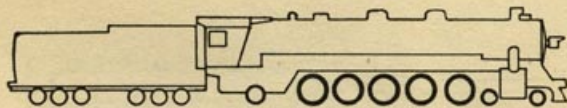
### 4-8-4

The 4-8-4 locomotives are called "General Service" type ("GS" for short). Most of them are streamlined and painted red, orange and black like the *Daylight* streamliners. They are used in both passenger and freight service. Length of engine and tender, loaded, 110 feet, 9-9/16 inches. Weight 869,800 pounds. Horsepower 5,500.



### 4-8-2

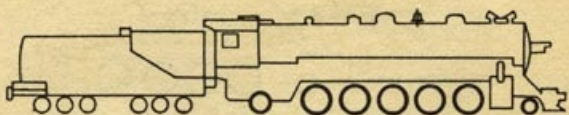
The 4-8-2 locomotives are called "Mountain" type (designated by the letters "Mt" on side of cab). Like the 4-8-4's, they are used in both passenger and freight service. Length of engine and tender, 97 feet, 8½ inches. Weight 659,000 pounds.



### 4-10-2

These locomotives are called the "Southern Pacific" type because they were originally designed by Southern Pacific. The letters "SP" on the side of the cab designate this type of engine. Unlike other locomotives, the 4-10-2 has three cylinders instead of two. It is used in freight service. Length of engine and tender, 101 feet, 2 inches. Weight 736,000 pounds. Horsepower 4,100.





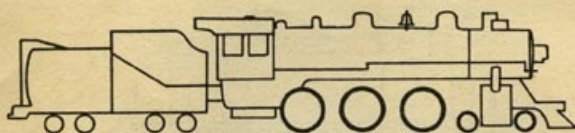
### 2-10-2

Locomotives of this type are for heavy duty like the still more powerful "Articulated Consolidations" described on pages 10 and 11. They are used for pulling long freights where the grades are not steep. The initial "F" on the cab designates locomotives of this type. Length of engine and tender, 98 feet. Weight, 660,800 pounds. Horsepower 3,100.



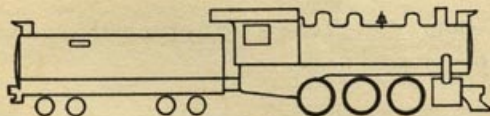
### 4-6-2

This is the well known "Pacific" type engine, designated by the letter "P" on the cab. It is a development from the "Atlantic" locomotive that has a wheel arrangement of 4-4-2. "Pacifics" are used in light freight service and local passenger service. Length of engine and tender, 91 feet, 2¼ inches. Weight 570,200 pounds.



### 4-6-0

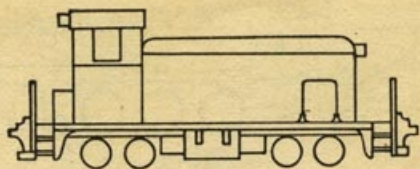
These engines are known as "Ten-Wheelers" and are designated by the letter "T" on the cab. They are used for local passenger trains and light freights. Length of engine and tender, 76 feet, 10-1/16 inches. Weight 392,800 pounds.



### 0-6-0

These locomotives are called "Six-Wheel Switchers" and are designated by the letter "S". Switch engines have no leading truck or trailing truck wheels, because they have to make sharp turns onto side tracks and spurs. Southern Pacific also has some "Eight-Wheel Switchers", designated by the letters "SE". Eight-wheel Switchers are used mainly in freight yards.





### 0-4-4-0

This strange looking engine is a "Diesel-Electric Switcher" (designation "DES"). These powerful, flexible engines are supplanting steam locomotives for switching all over the S.P. system. Length, 44 feet, 11 inches. Weight 248,300 pounds.

### What the lights mean

**Red**—stop.      **Yellow**—proceed with caution.  
**Green**—proceed or go.

### What our whistles mean

Below, the sign "o" means a short sound. "—" means longer sound.

— (Nearing stations, junctions, drawbridges, mail cranes located between stations, etc.).

— o o (To call attention to signals for a following section).

— o o o (Signal for flagman to protect rear of train).

o o o — (Signal for flagman to protect front of train).

— — o — (Nearing a public crossing like a road or highway).

o o (This is the engineer's answer to most signals).

o o o (When train is standing, this signal means "back up").

### Railroad slang

"Barn"—engine house.

"Brain plate"—a trainman's badge.

"Captain"—conductor.

"Crummy"—a caboose.

"Deadhead"—a person riding on a pass.

"Flimsy"—train order.

"Gate"—a switch.

"Gun"—torpedo for signaling.

"Highball"—a "clear track" signal.

"High iron"—main line track.

"Hogger," "hoghead"—a locomotive engineer.

— — — — (Signal for flagman to return from west).

— — — — — (Signal for flagman to return from east).

Many short sounds (Warning to persons or livestock on track).

"Hog"—a locomotive.

"Hole"—sidetrack for passing trains.

"Hotshot"—fast train.

"On the carpet"—office of the boss.

"Rattler"—freight train.

"Red Ball"—fast freight.

"Reefer"—refrigerator car.

"Reefer Block"—freight train of "reefer" cars.

"Car Whacker"—a car inspector.

"The Old Man"—superintendent or boss.

"Trick"—shift, hours of duty.



## The best of luck!

If when you travel on leave or in a small group on one of our regular passenger trains, and you have to wait for a seat in one of our dining cars—or if some other feature of our service doesn't seem as fast or as good as it should be—don't think it's because our hearts aren't in the right place.

We'd like to give you a fast trip, quick service in our diners and the best of everything. But it looks like that kind of railroad service is out for the duration.

Sometimes the coaches you may ride in may seem of an antique variety. But we're having to use whatever we have in order to carry the load. Civilians aren't faring so well either.

We're not going to cry on your shoulder but we do want to point out what the railroads are up against. With less equipment and fewer men than we had in the boom year of 1929, we are carrying the biggest load of freight and passengers in our history.

In spite of a shortage of men, cars and locomotives, the railroads have done a fine job hauling the raw materials of war, and the finished products for *you* to use. If our passenger service has suffered, it is only because the other job is more important.

Our best wishes go with you, and we promise you that every one of us will do our best to back you up. And "you" in uniform include over 10,000 Southern Pacific men (January 1943). That's another reason why we, on the railroad, will do the best we can.

F. S. McGinnis, Vice President,  
System Passenger Traffic,  
Southern Pacific Company.