

Livestock Operations with an emphasis on the ATSF

Compiled by J. Stephen Sandifer

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February 2, 2013

Please forgive me if I don't speak to your exact interest, but my specialty is the ATSF, 1950-53, Emporia Kansas and the Howard Branch.

I must begin by saying I model the Santa Fe Railroad in eastern Kansas during the transition period of 1950-53. Emporia was the home to the largest cattle feeding station on the Santa Fe. The Howard Branch that headed south was in the bluestem grass region known for fattening cattle on their way to market.

Topics covered are listed below. The information presented is, for the most part, about the prototype. Information more specific to modeling is presented elsewhere on this website.

- [Railroad Specific Importance](#)
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- [Stock Car Models – This is a separate file on this website.](#)

Appendix – These documents are located on the SFRHMS website.

- [Analysis of stock movements in Purcell, Ok, 1939](#)
- [Analysis of stock movements in San Bernardino, 1943](#)
- [Drover's Cars](#)
- [Pamphlet No. 19, Association of American Railroads, Methods for Loading and Handling Live Stock, Revised January 1942, provided by John Moore.](#)
- [Live List of Santa Fe Stock Cars, and Percentage of Stock Fleet List.](#) These have been combined in to a single file.

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Railroad Specific Importance

A modeler wishing to incorporate livestock operations into their layout had best research their era and location as it was far from uniform. The Santa Fe in 1948 was the largest rail carrier of livestock in the US. They moved over 100,000 carloads of cattle, sheep, goats, hogs, horses, and mules that year. Chicago was home to the nation's largest stockyard with other substantial ones in Los Angeles, Kansas City, Fort Worth, Denver, Wichita, St. Joseph, and Oklahoma City - all Santa Fe cities. The second largest stockyard in the country was in East St. Louis, IL, which was interchanged from Kansas City via Missouri Pacific.

Different railroads show considerable variation in the make-up of their car fleets. The following chart shows the percentage make-up of the car fleets of some major roads in 1950. This comparison does not consider private owner cars.

Type	ATSF	GN	B&O	DM&IR	SR
Stock	7	5	1	1	1
Refrigerator	15	-	-	1	-
Box	47	54	32	2	43
Flat	4	6	1	1	2
Gondola	11	8	15	3	18
Hopper	7	25	48	89	19
Cov. Hopper	5	2	2	1	4
Tank	3	-	-	-	-
Rack	1	-	1	2	13

In 1950, 66 railroads owned a total of 54,555 stock cars. The largest was the Santa Fe with 13% of the national fleet. Only 3 roads east of the fleet Mississippi: PRR, NYC, and B&O, had 1000 stock cars or more. 18 railroads had 80% of the stock cars.

Leading Stock car owners (1950)

ATSF - 7461	PRR - 2315
UP - 4386	GN - 2045
CB&Q - 3753	NP - 1715
MILW - 3690	NYC - 1675
CP - 3346	RI - 1207
CNW - 3147	B&O - 1192
SP/T&NO - 3040	IC - 1100
CN - 3037	

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In 1955, stock car movements amounted to only 1.2% of the total national freight movements. But nearly 25% of all stock movements nationally were on the Santa Fe.

Stock movements were normally from the country to the city, from all direction to the northeast. Stock movements on the Santa Fe were primarily in the easterly direction. The major exception were the packing plants around Los Angeles. There was a large area of packing plants in Vernon, Calif. just south of L.A. and in the Cudahy area of LA, near Hobart yard. In the analysis of stock movements through San Bernardino in January 1943, 37% came from Texas (file located on SFRHMS website).

Chicago was the meat packing capital of the US. The railroad stockyards were established there in 1866. By 1900, the most common pattern was for stock to be raised on rangeland for up to 2 years. When the range started to dry up seasonally, they would be shipped by rail to stockyards at various locations to be fattened for 3-6 months. The fattened stock was then shipped by rail to public markets.

Winter grazing was a source of reverse moves for stock. Some ranchers from the colder climates would ship their livestock south for the winter. The D&RGW and RGS narrow gauges both did heavy traffic in moving livestock from summer to winter pasture and back.

Many loads of livestock were riders, i.e. the stock had not been sold when they were loaded. In such a case, the shipper might choose a roundabout route in hopes of securing a buyer while in transit. They might therefore start their journey going to one destination, only to be pulled and shipped elsewhere in route.

Clarification: Is it [livestock](#) or [live stock](#), [stockyards](#) or [stock yards](#), [stockcars](#) or [stock cars](#)?

- The Santa Fe was not consistent. Form 1846 is called a [Livestock](#) Freight Waybill. However, the block on the back of the form twice refers to [live stock](#).
- Form 2232 is the consent to confine [live stock](#) for 36 hours, and the term live stock is repeated in the body of the consent form.
- In 1940 the Santa Fe published a book entitled "Meat." In the same paragraph it talks of [live stock](#) being nurtured on the plains and farms and individuals who buy [livestock](#). The booklet does use [livestock](#) most of the time.
- The Santa Fe Instructions for Trainmen system circular 33-S (1943) has a section on [live stock](#) express shipments and uses [live stock](#) throughout and in conjunction with live animals, live birds, live poultry, live pigeons and live fish.
- In 1946, the Santa Fe published a booklet for its employees in an attempt to reduce losses through damaged or dead stock. The cover letter is from the General [Live Stock](#) Agent and the booklet uniformly refers to [live stock](#) and [stock yards](#).
- The Santa Fe Official list of Officers, Stations, Agents, etc. No. 52, 1945, has a list of [stock yards](#).
- Santa Fe form 822 Standard contains a "[Stock Yard](#) Foreman's Record."
- A 1953 booklet in my possession which tells the history of the Chicago Union [Stock Yards](#) and calls it the "World's greatest [livestock](#) market." Inside the text talks of "tavern [stockyards](#)." A photo is identified as the "International [Live Stock](#) Exposition and Horse

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Show." Another is identified as "Chicago [Stock Yards](#) by Night." It also describes the "[Stock Yard Inn](#)" as "associated with America's [live stock](#) industry."

- The Wabash contract in my possession is a [Live Stock](#) contract and talk of "Ordinary Live Stock" and "Other Than Ordinary Live Stock," the distinction being meat stock versus racing or show stock.

The Official Railway Equipment Register refers to the class of car that carries "stock on the hoof" as "[Stock Cars](#)."

So, "livestock" or "live stock," "stockyard" or "stock yard," you take your pick, and feel free to use both in the same document - the industry did. The ORER seems to have settled the mode of transport at in "stock cars."

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Livestock Cars



Stan Hall Collection

The first live list of ATSF cars produced in 1883 lists 801 stock cars. This increased to 7000 by 1908, peaked at 9331 in 1931, but remained a respectable 7880 in 1954. 7% of Santa Fe's freight car fleet were stock cars, the highest percentage of any railroad. Stock movements by rail ceased on the Santa Fe in 1974.

Around WWII, the need for stock cars had grown and the supply of materials was limited. Santa Fe, like many railroads, chose to rebuild wood sheathed box and auto box cars as stock cars. Even the wood sheathing was recycled. The Santa Fe did this from 1941-52, and other roads did the same into the mid-50s.

The AAR 1953 codes listed:

- BH - Horse or Horse and Carriage Express, for passenger trains.
- SA - stock cars
- SC - convertible single or double deck
- SD - has drop bottom doors
- SF - fixed double deck
- SH - horse car in freight service
- SM - was a single deck
- SP - poultry, with shelves for crates of poultry, with feed and watering facilities
- ST - a triple deck car.

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For Santa Fe, all new cars built after 1906 (SK-H) were 40' cars. In 1950 they had 5804 40' single deck cars, 1656 40' convertible double deck cars, and only 1 36' car which it inherited from the KCM&O. Convertible cars were made so the upper level could be raised or lowered as needed for various livestock. Some roads, including the UP, had a stationary second floor, but with uneven spacing so that the lower floor could accommodate both cows and smaller stock. Livestock could be segregated from each other through the use of partitions or double decking. Bulls at times were tied to side slats.

Most modelers weather their cars based on color photos taken from the 1960s when stock movements had greatly declined, and the cars were nearing the end of their lives. The fewer color photos from the 40s and 50s show the cars much better maintained.

Preserved Livestock Cars

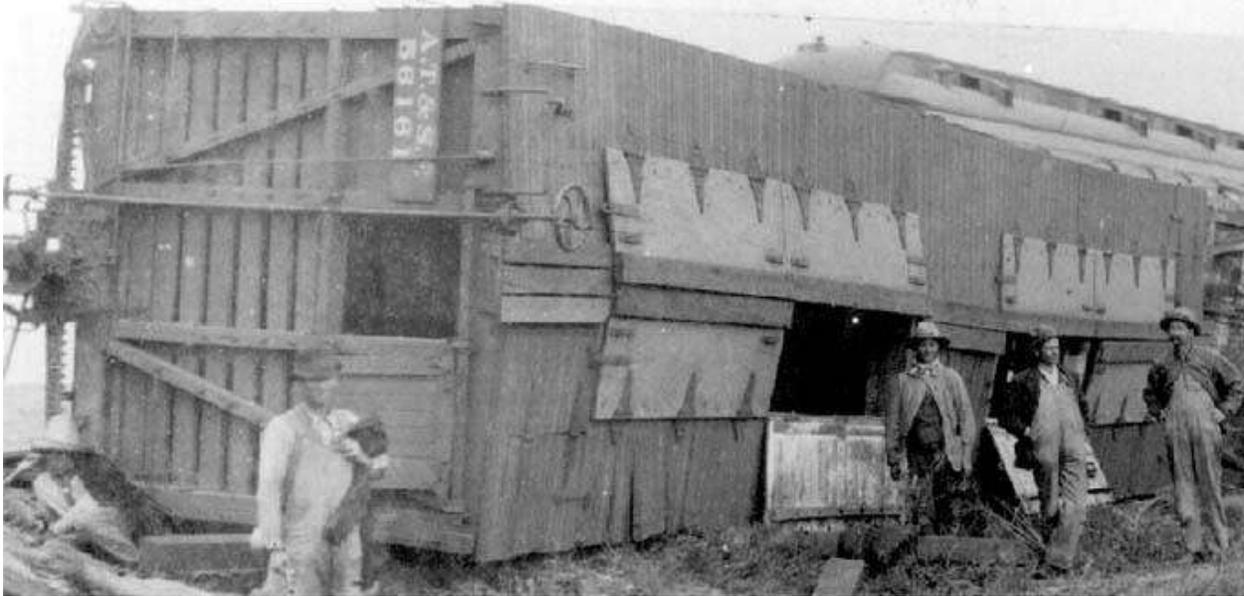
Internet correspondents have provided a list of livestock cars which are preserved as of this date. This list with additional details on these cars appears elsewhere on this website. It is an incomplete list, but hopefully others will expand send additional information.

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Stock Car Loads

Railroads try to avoid deadheading their equipment. Therefore, they have always looked for other cargoes for their stock cars. In 1906 the Santa Fe designed some stock cars which also had 16 Caswell side dump doors in the floor and 8 long roof hatches. These cars carried livestock east and returned west with the industrial fuel coke. The Sk-H, K, L, N, and P classes had this feature. However, coke usage was replaced by fuel oil and natural gas by the early 30s, and the dual use feature was no longer needed. Most of these cars were rebuilt, but about a thousand remained in service as late as 1950. Below is a roof view of an Sk-K supplied by Jon Miller. At least 3 different roof hatch configurations existed.



The actual number of livestock carried in a car depended on the weight of the animals and length of the car.

Texas law required that a railroad provide double deck cars for the shipment of sheep, goats, hogs, and calves, and that these cars be the same exterior size as single deck cars. The law was intended to protect the shipper from having to pay for two cars when one was sufficient. The law also prevented railroads from charging more for the use of a double deck car. If double deck cars were not available, the railroad had to provide two single deck cars at half price.

40' Stock Car Capacities

Stock or feeder cattle (500 pounds) - 46
Fattened cattle (750 pounds) - 35
Hogs (350 pounds) - 60 per deck
Feeder sheep (60 pound) - 150 per deck
Fattened sheep (90 pounds) - 125 per deck

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Recommendations were that the top deck of a double deck car have 8-10 fewer animals than the lower deck, but records show that they were usually loaded equally. The issue was one of space, not weight.

If a bull was shipped with cows, it was to be tied and smaller stock partitioned from it. If multiple size animals were shipped in the same car, they were to be partitioned also. Hogs were to have sufficient room to lie down.

Horses should only be loaded in cars with 8' of headroom.

Claims 78700 and 78814 Loading
Horses in Low Roof Cars:

S-33033

Arkansas City, August 8, 1938

Messrs. Krammes,
Hume,
Grill.

All Agents.

My letter July 9 calling attention to hazard of damage if horses are loaded in low roof stock cars because of the liability of these animals throwing their heads up and striking the top of the car.

The following series cars have inside height of eight feet or more and should be used for loading horses in preference:

51040 to 51999
55502 to 59001
60002 to 60901.

P. O'Sullivan

A charting of 42 days of stock traffic through Purcell, OK, and another set of records from San Bernardino can show the variation in stock car loads.

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1955 National Car Loadings for Stock Cars

Commodity	Loads	%
Cattle & Horses	261,100	61%
Hogs	102,600	24%
Sheep & Goats	58,400	14%
Watermelons	1,600	
Brick and Tile	1,400	
Sorghum grain	800	
Ceramic sewer pipe	600	
Tomatoes	300	
Railroad ties	300	
Total	427,100	

For more information, see *Pamphlet No. 19, Association of American Railroads, Methods for Loading and Handling Live Stock, Revised January 1942*, provided by John Moore.

After the end of stock transportation in the early 70s, many of the cars ended up in MOW and Store use as storage units for materials. On the Howard branch, 2 were kept at the limestone crusher near Moline as storage for wood and supplies to repair composite gondolas. Santa Fe lined some stock cars and used them as sugar beet cars with small dump doors in their sides. Others were lined and used in grain service.

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Railroad Stock Yards

It has been said that in 1950, 95% of the towns served by railroads in Iowa had a stockyard. On the 84-mile Howard Branch in Kansas, there were 13 stations; all had stockyards maintained by the railroad. Two of those did not rate a depot. The Santa Fe designed standard stockyard plans that can be obtained from the *System Standards* book or the stock car book listed in the resources.

On the branch lines, these pens were where cattle would be assembled before shipping to market, or, if in a feeding area, where cattle would arrive before being transferred to fields for fattening. The Flint Hills region of Kansas was a popular place to fatten cattle. Very few cattle shipments were of indigenous cattle.

There were several types of pens in stockyards. Holding pens were large fenced areas where stock from one shipper could be brought to await shipment. There could be several thousand head in one holding pen. The smaller pens were used to segregate individual car or shipper loads while being fed in route. Hog pens were usually roofed as swine are sensitive to sunlight and heat. Many sheep pens were also roofed. At major feeding stations, pens often had concrete floors to expedite cleaning and control disease.

On the Santa Fe, stockyards were measured in terms of car capacity and pens. For instance, Utopia, KS, had a 14-car capacity stockyard with 7 pens, and a pump. There was no depot here. This means that the stockyard could hold the number of cattle required to fill 14 cars (around 650), and that there were 7 pens available to allow cattle of various kinds or from various shippers to be segregated. The pump was for watering the cattle. Other amenities one might find at other locals included weight scales, electric lights, sheep shearing, hay and feed barns, and special unloading chutes.

Either the railroad or the shipper could be called upon to provide feed for the animals. The Santa Fe regularly shipped hay in the largest boxcars available. In the early 70s, 86' auto parts cars were occasionally used for hay shipments. Sand and/or straw for bedding must also be provided.

Some stockyards, most of which were used seasonally, had insufficient water for the brief stay of a large herd. The railroad might be called upon to park a company water tanker at the yard when it was occupied. These frequently were 12,500-gallon company tanks.

The First Quarter 1989 issue of *Santa Fe Modeler* contained an article on building a Santa Fe Standard No. 1 stock pen on pages 12-17. Bill Van der Meer used the jig described in the article to build the beautiful model of a Standard No. 2 stock pen which is shown in the February 2003, pgs. 64-65, issue of *Model Railroader*.

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The Santa Fe standards called for the loading chute to stand 6'6" from the centerline of the stock track. The exception was in Texas, where state law demanded 8'6" clearance for the protection of crewmen.

Retired ATSF conductor, Gordon Locke, tells this story: "Back in the late 50's and during the 60's I worked lots of trains that either picked up or loaded cattle and sheep on the Lampasas and San Saba Districts. Mostly what we hauled were calves going to feedlots or to summer pastures in Colorado. On train 53-54 the Lometa to Eden Local most of the agents along the line would already have 5 or 6 cars loaded before we arrived. Some would pinch them down and some pulled the cars with chains and tractors or pickups. There always was a cowman sitting on the rail as they were loaded counting heads. Seems like 38 to 40 calves were loaded."

"The Santa Fe had a man contracted to load. I remember an old Plymouth coupe. He mostly loaded sheep. He had a Judas Goat. The goat would run in a car with the sheep following. The man would whistle, and the goat would run out of the car over the backs of the sheep. That goat chewed tobacco like a cowboy and sat in the front seat of the Plymouth."

"The best cattle trains I worked were in the spring. Owens Brothers Ranches at San Saba, TX, had their own loading chute. We would run a caboose hop out of Temple at 0400; pick up 60 stock cars at Lometa and run to San Saba; load 60 cars of yearlings, eat lots of BBQ, and take the train to Brownwood in 16 hours. Owens always ran several trainloads of yearlings to Colorado every spring. In later years the agents and cowboys figured how to back trucks up to the cars on the stock tracks and load them like that. The mainline trains like TSF every afternoon and the West Local usually just picked up cars that were already loaded."

D. K. Spencer also has some livestock stories from Lamar, CO. on this website.

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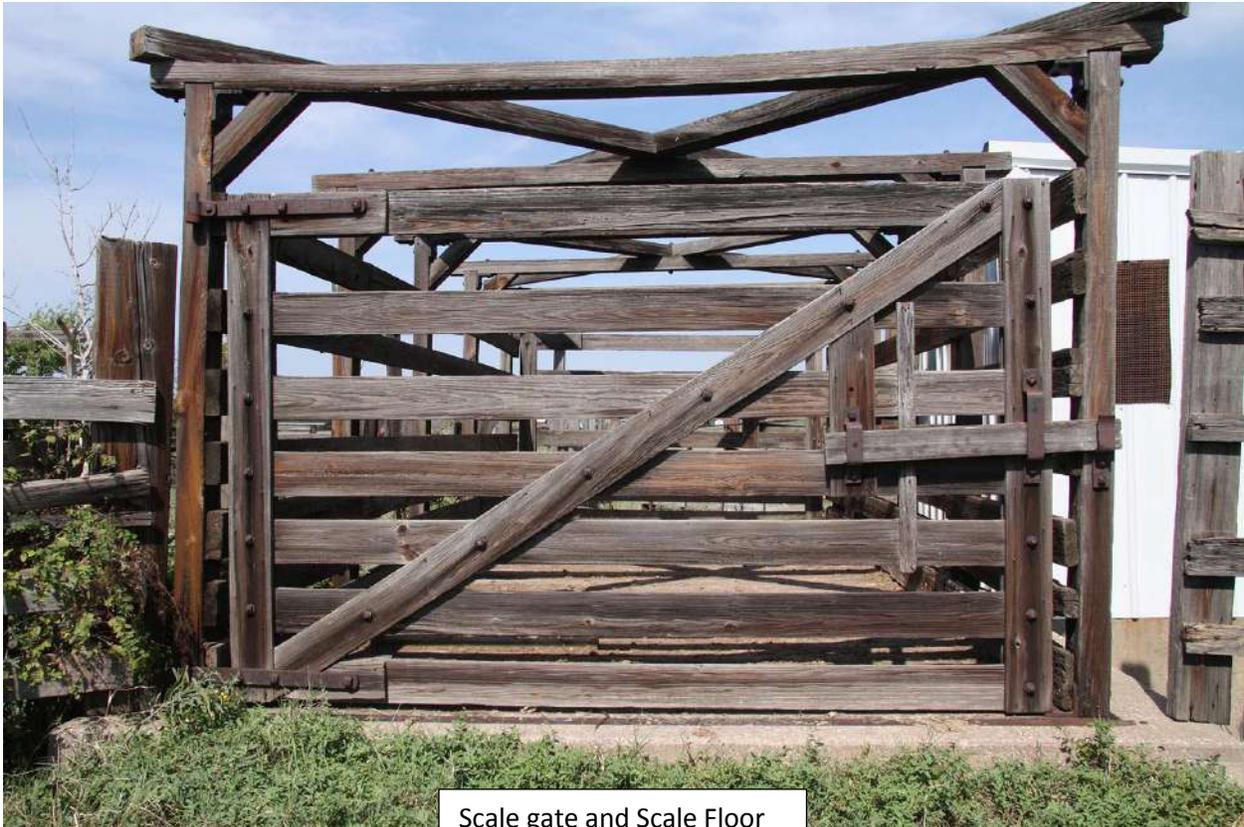
Scales

In 2013, at least one Santa Fe stock pen with scale was still in use, though the tracks were removed many years ago. This is at Bowring, Oklahoma, on the former Pawhuska branch. These photo document a Santa Fe scale, though with a metal building replacing its wooden predecessor. The foundation for the scale appears original. This is listed as a 10-ton scale.



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Scale gate and Scale Floor



The entire scale area is raised above ground level as can be seen from the first two photos. Dirt ramps lead up to the gate on one side and a departure ramp opposite. This platform has no roof. The gates and sideboards are not attached to the scale itself, which is only the floor.

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Utopia, Kansas, was a station on the Howard Branch, also gone. Below is a photo from 1952.



EM-5755

SANTA FE RAILROAD STOCK-YARDS LOCATED AT UTOPIA, KANSAS. PHOTOGRAPH WAS MADE JULY 1952.

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Feeding Stations

Main lines would also have feeding stations provided at regular intervals. Federal law passed in 1906 stated that stock could be in cars no longer than 28 hours at a stretch. Before that time expired, they must be removed for at least 5 hours of rest and feeding. A shipper could provide written authorization the railroad to keep the cattle on the train up to 36 hours. This became the norm for most movements after that time.

Both the 28-hour and 36-hour limits could be extended in cases of weather that might prevent unloading, an unforeseen accident, or other "unavoidable causes." Shipments of sheep were allowed to proceed in transit or remain confined on site for a period of time up to 36 hours (without signed permission) should they arrive for unloading in darkness.

There has been much discussion on the internet concerning hog traffic. Some report that they were subject to the same 28/36 hours laws. Others have told of their experiences where they could be kept in cars as long as provisions were made to flush or drench them with water at regular intervals. The 1906 law makes no such provision. I do have stock records from San Bernardino of three Armour stock cars of hogs which were not unloaded, but the hogs were fed and watered in the car, Jan. 1943. These all arrived after dark.

At Wellington there were a pair of hog watering stands at each end of the yard. These watering poles were set up on the 2 freight leads and operated by car men as the trains left with hogs. They were simply poles with holes in them that sprayed the cars as they passed. Such watering poles were common. Photos appear in *Pamphlet No. 19, Association of American Railroads, Methods for Loading and Handling Live Stock, Revised January 1942*, provided by John Moore.

A Santa Fe Pamphlet, 1945, stated, "Water should never be applied to the heads or back of hot hogs. Many hogs have been instantly killed by having water sprayed over them while hot. When necessary to cool hogs in transit, water should be allowed to run on the floor of the car... The car floor should be drenched before, or immediately after hogs are loaded at origin and at every opportunity in transit... Upon arrival at terminal, the floor should be drenched at once, and the car not allowed to stand around. If unavoidably delayed at terminal, floor should be drenched at once and car not allowed to stand around. If unavoidably delayed at terminal, car should be set to a track where there is ample circulation of air, and in no case be allowed to stand between strings of cars on adjacent tracks."

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Santa Fe had feeding stations at 69 locations on the system: Richmond, Riverbank, Calwa, Bakersfield, Barstow, Needles, San Bernardino, and Los Angeles, CA; Seligman, Ash Fork, Winslow, Holbrook, Prescott, and Phoenix, AZ; Gallup, Belen, Abajo, Vaughn, Raton, and Clovis, NM; Amarillo, Plainview, Lubbock, Slayton, Sweetwater, Hamlin, Brownwood, Tampa, San Angelo, Ft. Stockton, Alpine, Whiteland, Gainesville, Dallas, Paris, Cleburne, Temple, Cameron, Milano, Somerville, Belleville, Sealy, Rosenberg, Alvin, Galveston, Conroe, Cleveland, San Augustine, Silsbee, and Beaumont, TX; Boise City, Waynoka, Alva, Fairfield, Altus, Purcell, Pauls Valley, Ardmore, Shawnee, and Arkansas City, OK; La Junta, CO; Dodge City, Belvidere, Sawyer, Wellington, Morris, and Emporia, KS; Ft. Madison, IA, and Chicago, IL.

For those in Texas, the Amarillo feeding station might be of interest. It had a capacity of 823 cars with 467 pens with feed racks and water, single and double deck chutes, 18 covered pens with a capacity of 39 cars, 12 pens with cement floors, electric lights, 24-hour service, and 5 scales. This means as many as 40,000 cows could be rested in Amarillo at one time.

Emporia, KS, was the most modern feeding station on the Santa Fe. The cattle section had a capacity of 175 cars (7000 head). There were 66 pens, concrete floors and alleys, water troughs, hydrants, feed grain bunks in each pen, 25 chutes and 25 pockets to load and unload simultaneously with 3 tracks on each side the facility. There was a 20-ton scale, flood lighting, two hay barns with a capacity of 1000 tons, and a branding chute.

The sheep yard at Emporia had a capacity of 147 double deck or 294 single deck cars (45,000 sheep). It had 79 pens and 3 barns with water troughs, hydrants, self-feeders and salt boxes in each pen, double deck chutes, 29 double deck pockets, 10-man electric sheep shearing plant, 70-ton wool storage, 400 tone alfalfa storage, 57,750-bushel grain elevator, electric grain grinder and feed mixer, concrete alleys and a 20-ton scale. When photographer Jack Delano visited in March 1943, he reported 40,000 sheep in residence.

Emporia was about 4 hours from the next feeding station east at Morris, just west of the Argentine yards. Trains arriving in Emporia would need to see if the 36/28-hour law would allow them to continue on or if the cars needed to be set out in Emporia for resting and feeding. Other concerns might cause a car to be unloaded even though its time was not about to expire.

Emporia was a division point. In steam days, locomotives would be removed for servicing and new power added for the trip to Kansas City. Some locos were assigned to a division, so this being the end of two divisions, many engines would be serviced and turned to remain in their assigned service area. Before the days of pool waycars (caboose) - 1962, waycars would be changed as crews changed. An east bound freight would stop, and yard crews would change power and waycars and remove any stock needing rest in addition to any normal switching.

Removed stock cars would be transferred to the feeding station, the stock unloaded, and careful note made of any damaged stock. The cars would be moved to another track for cleanout and bedding change. Foreign road cars would be put back in the main yard for return to their home roads and Santa Fe cars brought in and bedded to continue the journey. After a minimum of 5 hours of rest, the stock would be loaded into clean cars, usually the ones they arrived in if home

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road, and sent on their way. Some stock might remain in the feeding station longer depending on the train schedules and owner's requirements.

In the accompanying analysis of stock movements at Purcell, OK, 82 of the 230 loads examined arrived in foreign road cars. 51 of those were transferred to ATSF cars and the foreign cars sent home. However, another analysis of San Bernardino movements showed no transfers at all. These cars were going to the LA area, and it was probably not considered feasible to reload them for such a short trip.

Not all cars would continue to Kansas City. Some would be routed northeast through Topeka to St. Joseph, MO. Others might be destined for the feeding areas on the Howard or Alma branches or other close environs. It would be rare for a loaded stock car to spend much time in a yard. The Howard Branch had one local a day each direction before the early 50s. Then it had a turn originating from Moline, therefore stock headed down the branch from Emporia only could travel 3 days a week. If a few cars of stock arrived for the Howard, either an extra would run to get them immediately to their destination, or they would be rested and watered until the next local south (west by RR terminology) was scheduled to run.

The feeding station at Emporia would require several other rail shipments. There was a large grain elevator and two big hay barns for feed storage. Bedding also would require large quantities of sand. Waste products from the livestock would need to be removed for disposal elsewhere.

Based on Purcell, OK, records, a single deck stock car of sheep was allotted 2 bales of hay during a rest stop; a double deck received 4 bales. Calves and steers received a bale for every 10 head, which worked out to 6 bales for a car of calves and only 3 bales for a care of steers. Those that stayed 24 hours consumed double these amounts. Cattle generally received prairie hay, while sheep received alfalfa.

If the standard bale of hay is 4'x18"x18", a 40' box car would hold around 270 bales. A 50' car would hold 360. Assuming the 40' car would be the standard in hay service until the late 50s, one car load of hay would service 135 single deck or 68 double deck cars of sheep at a feeding station. If they stayed 24 hours, hay consumption would double. Cows would consume one third more per car than single deck sheep cars, therefore one box car of hay would feed 90 stock cars for resting or 45 cars for 24-hour service.

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Bedding

Some have reported that stock cars were thoroughly steam cleaned between shipments of cattle or anything else. However, this does not seem to be the case. Gordon Lock reported that Lometa, TX, was a bedding location for cars on the San Saba District. Dirty cars were dropped at Lometa's clean-out track where a crew would clean them out with shovels and brooms. They were not washed or otherwise treated. Once clean, the local would move them to the bedding track. A tractor with front loader would bring a load of sand from the nearby Colorado River and dump it in the car door on the floor. Crews would then shovel it around the inside of the car completing the bedding process. The cars were now ready to go down the branch for their next load. As for the dirty sand, local gardeners use it to fertilize their plants.

At the stockyards the railway furnished bedding for the cars and had to ship bedding to meet the anticipated needs of stock movements. Bedding was usually sand. During cold weather, a layer of hay was added. If hogs were being shipped, straw or hay was piled about a foot high around the sides and ends of the car to act as a windbreak. During periods of stormy or severely cold weather, the sides of cars were papered or battened in order to provide addition protection. If shipping hogs during hot weather, the bedding was wetted down, and several chunks of ice were place on each deck or hung in burlap bags from the ceiling. Al Richardson reported that ranchers used volcanic cinders for bedding on the Grand Canyon line.

A Santa Fe pamphlet, 1945, stated, "Approximately 2 inches of sand, evenly distributed makes ideal bedding. Cinders are very undesirable. An accumulation of old bedding soon becomes slick allowing the livestock to get down and be trampled. Straw in liberal quantities should be used for bedding cars for hog shipments in cold weather. This prevents them from piling and smothering trying to keep warm. Bedding should be wet down before loading hogs in warm weather and kept wet in transit."

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John Moore has supplied a circular regarding the bedding needs (right) for various feeding stations in Oklahoma, 1937. Records from the Pawhuska District (Oklahoma) from 1958 show sand being shipped in GA-40, 42, and 98 20-yard air dump cars.

Southern Railway Circular No. 144, Rules and Regulations Governing the Handling of Live Stock, effective January 1, 1947, stated, "Cars properly bedded must have at least four inches of sand or fine cinders, or not less than six inches of sawdust, tanbark, shaving, or other suitable bedding. In hot weather, cars for hogs must be bedded with not less than four inches of sand, clay, or earth, thoroughly soaked with water before loading."

Sometimes sand was delivered to stock pens in advance of shipments as bedding. Reports also exist of gondolas of sand traveling with the empty stock cars to loading chutes. John B. Moore has calculated that each 40' stock car required 3.2 yards of sand, so the standard gondola used for sand could service 10-12 stock cars.

Sand for bedding on the Plains Division came from the Cimarron River bottoms near Waynoka, OK. Reports from the late 50s show bedding sand being delivered to loading pens in on the Pawhuska District of Oklahoma in GA-40, 42, and 98 air dump cars.

OK 50 req'd 100 8/12-37

T R A I N G R A M

Bedding Sand Requirements - August 1937
to August 1938, Oklahoma Division: X-36086

CIRCULAR NO. B-1304

Arkansas City, July 12, 1937

ALL AGENTS:

Desire to check up on our bedding sand requirements for the coming fiscal year. Need not make requisition for this, but, fill out form below showing your estimated requirements in addition to what on hand, and let me have reply traingram by return mail, as we are late this year getting after this. Show number of cubic yards sand need for bedding stock cars August 1937 to August 1938.

G. C. Jefferis.

Bedding Sand Requirements
Oklahoma Division - 1937-1938: X 36086

Arkansas City, August 28, 1937

All Agents:

Referring to my Circular No. B-1304 July 12th, addressed to all agents regarding bedding sand requirements for the coming fiscal year, and your various replies.

Please be advised it has been decided at this time, to furnish bedding sand only to the following Agents in amounts indicated, and order has been placed accordingly:

- 200 Yards - Arkansas City
- 60 Yards - Merland
- 60 Yards - Red Rock
- 60 Yards - Purcell
- 100 Yards - Soldani
- 20 Yards - Fairfax
- 20 Yards - Skeese
- 100 Yards - Cushing
- 150 Yards - Cherokee

Other agents requiring bedding sand, will please arrange to order by requisition as needed.

G. C. Jefferis.....

Livestock Operations with an emphasis on the ATSF

Compiled by J. Stephen Sandifer

Gordon Lock, GC&SF conductor on the Lampasas District, related the following information.

"Back in the 1960's there was a stock car bedding spur at Lometa. This track was at the West end of the yard coming off the Branch Main and going downhill to a creek bed. This track was about 30 cars long. During the early sixties the mainline local 171-172 operated Temple to Brownwood Mon. Wed. Fri. and Eastbound Tue. Thur. and Sat. Back then one geep was the power. To pull the bedding spur one unit would not pull 30 cars out because of the grade. The cars had to be doubled out which was a pain for us brakeman.

"Lometa bedding track was used mainly for cleaning and bedding cars for local use on Lampasas, Sweetwater, San Saba and Menard Districts. This operation had no steam cleaning like the bedding tracks did in larger terminals. This was a contract operation that a yardmaster named Murrey in Brownwood operated. (He also iced cars at Brownwood). Dirty cars were swept clean by his contract workers. A front-end loader dumped sand in the door after cars were swept clean. Then the workers spread the sand in the car.

"In those days every freight train through Lometa set out and picked up. (Eastbound BTX and CTX, and Westbound GCF and TSF). So empty cars to be cleaned were set out by nearly all trains. Two locals the mainline local and #53 the branch local worked the spur every day. Most of the clean cars were used on #53-54 going out on the San Saba and Menard Districts.

"Usually #54 brought about 30 to 40 loads of stock (sheep and cattle) into Lometa. This was picked up by TSF (TSF if early waited for #54) and handled to Brownwood. Most put right on a Dublin District train to Fort Worth. Pretty good service cattle from Menard one morning into Ft. Worth stock yards the next morning.

"My wife and I would drive to Lometa and shovel a load of composted material from where the stock cars were cleaned and fertilize our garden with it. I grew the best tomatoes in Bell County. Those were truly the good ole days."

From Gordon Locke
GCSF Retired

Livestock Operations with an emphasis on the ATSF

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Operations

Livestock generally was shipped from west to east, south to north. Each spring, the PRR forwarded a large stock train that originated from the King Ranch in Texas to the King Ranch's stock farm at Doe Run in southern Chester County (Nr. Philadelphia, PA). The purpose of this movement was to bring stock east and fatten them up through the summer months for eventual movement to the eastern slaughterhouses in Philadelphia (Cross Bros.) and the New York area. These cows were delivered in cars of the T&P, Santa Fe and SP. Interchange rules forbade empty movement of Pennsy cars to Texas.

This stock train was still operating into the spring of 1966. The cars would be brought from Enola (across the river from Harrisburg) east to Pomeroy, Pa. (26 miles east of Lancaster, Pa.), where it would be taken down the Newark & Pomeroy Branch to Doe Run to be unloaded. The empty cars would then be returned to Enola for disposition west.

Typically, Texas cattle would move out in April-May to a place like the Flint Hills of Kansas where they would spend the summer getting fat. Around September - October they would be shipped off to market. Slow branch lines which might only see one local a day might see 5-6 stock extras per day during the "cattle rush."

On the Grand Canyon line, sheep and cattle were often shipped out in the fall, especially if a severe winter was forecast.

In the 1940s, livestock could move from Denver to Chicago in 31 hours with no stops necessary. However, to reach the East Coast would require 80 hours and two rest and feeding stops. The trip from Texas to Los Angeles took an average of 6 days, which means the stock would be rested three times on the way.

Most local stockyards had only one or two car chutes. It was standard procedure for empties to be loaded at the last moment. The local freight or switcher would arrive at the stockyard. Empties may have been spotted at the yard in advance or have come with the train. The cars would then be loaded one at a time, in sequence as the engine moved each to the chute. Alternately the rancher might load empties spotted beforehand, pulling them to the chute with a tractor, and having most loaded just in time for the local to pick them up. Then they would move immediately to the yard or interchange where they would be expedited to their destination. Santa Fe said, "We cannot bring live stock into a terminal, permit it to stand several hours before being taken to the stock yards, or while making up an outbound train, and reverse the process after the stock has been fed and watered..." When loaded cars were delivered to a stockyard, they would be unloaded immediately with the locomotive moving each car in sequence to the loading chute. The empties might be left at the yard or might continue on the same train. In any case, the locomotive was often necessary to the loading and unloading process. Unloading 5 cars of sheep required 35 minutes, 7 minutes per car.

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When stock had to be unloaded for feeding, it was standard procedure on the Santa Fe to load them back into the same cars they arrived in or into home road cars if they were available and to send the foreign road cars home empty. Not all railroads replaced foreign cars with home road cars, but that appears to have been a Santa Fe practice.

However, home cars might not be available. An example from *The Warbonnet* concerns Train #53 from Lometa to San Saba, TX, in September 1947. The train included 17 loads and one empty plus a combine. The five stock cars of sheep in the consist included two ATSF, and one each from LN, CN, and ACL. The San Bernardino analysis in these pages include cars from ASEX (Armour), B&O, CBQ, CDX (Cudahy), CNW, GASX, GN, LN, MILW, MKT, MP, MSCH, NcStL, NP, NYC, PRR, RI, SLSX, SP, TNO, TP, and UP. An "Interline Freight Received" report at Willard, AZ, dated 1959, listed 3 RI, 1 TNO, and 3 CBQ cars on one train. In railroading it is risky to say, "those cars would have never...."

If more than 15 carloads were shipped together, Santa Fe might operate a stock extra. Caretakers were permitted to accompany the stock in route and rode in the caboose. If there were 6 or more caretakers on a single train, a special drover's car was provided. These might be cars built for that service or older passenger cars. Drover cars were usually placed directly behind the locomotive(s) and stayed with the stock cars. After the shipment was complete, drovers were given script for a coach ride home on regular passenger trains.

When horses were shipped by express, free tickets were provided for attendants accompanying them. The number was based on the type of horse (race, polo, or show) and the number being shipped. See Santa Fe circular 33-S, *Instructions for Trainmen governing the Handling of Transportation* for more details. Free attendants could also accompany car loads of live animals, birds, and live fish. The Santa Fe excluded women and minors from this privilege.

Car movements remained sizable until the late 50s when a steady decline began. In 1971 there were only 427 carloads and the Santa Fe moved to discontinue livestock transportation in early 1973. They only had 766 stock cars on the live list at that time. Tom Birkett reported switching 2 cars of stock from the Oklahoma National Stockyards in Oklahoma City in the summer of 1972, wondering if these were the last two cars shipped from there. It was estimated that by January 1, 1974, only 68 cars were still serviceable. On February 27, 1974, the ICC authorized the cancellation of the carload rates on livestock in the west.

An exception was the "Big Pig Palace" HOGX cars of the UP which continued until the summer of 1993. These were 86' cars designed specifically for hogs and ran from eastern Nebraska to California.

Jim Hollis wrote, "Livestock shipments on the former NP and CB&Q parts of BN lasted until 1978. This was due to an age-old agreement between Montana ranchers and the NP/later BN. The last shipments were a real pain as most of the loading/unloading pens were gone and it made any trains with these cars very hot. The last shipment I can remember for sure was in the fall of 1978 which ended in a failed drawbar on the lead of three cars near Belmont, Nebraska. When the drawbar came out it took the whole end of the car with it, which in turned derailed the second

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car and scattered bovines all over the right of way. These were on cattle from Montana to eastern Nebraska. BN very wisely used this incident to end livestock shipments for good."

Stock cars were usually placed at the head end for a variety of reasons. The main was to reduce slack damage. All lame, gored, or otherwise damaged stock had to be accounted for. Other reasons were to expedite switching them out at feeding stations or the operation of watering poles, and to lower the odors which crewmen in the caboose must bear. Of course, empty stock cars could appear anywhere in the train.

Santa Fe reported, "Kicking or dropping cars containing livestock is against the rules of our company and must never be done. So far as possible live stock should be handled on the head end of the train and should not be switched with."

For more information, see these documents on the website:

- *Livestock, Now That it's In Our Care...* (ATSF)
- *Methods for Loading and Handling Livestock* (AAR)
- *Livestock Shipping* (UP)

An often-forgotten stock shipment was the LCL (Less than Car Load) shipment. It was the practice of the Santa Fe to operate a weekly LCL stock car on its locals in certain parts of the country. That car might pick up two cows at one station, a couple of mules at another, a horse at another, while delivering newly acquired stock to yet another station. This was a regular occurrence at certain times of the year on the Howard Branch.

In the west where Open Range Laws were common, livestock owners grazed their herds without restriction and without fences. It was a landowner's or railroad's responsibility to fence livestock out, not the stockman's job to fence his stock in. It was cheaper for the railroad to pay for a dead cow than to maintain fences. If a cow was hit on the track, the crew would stop, seek its brand, and fill out the appropriate report so the owner could be reimbursed. The crew must be prepared for the wrath of the engine house crew when they got home with a dirty engine.

Several things worked together to cause the demise in stock cars.

- Mechanical refrigeration made the frozen food industry possible. Ice refrigeration was costly and undependable. This applied not only to rail cars, but more significantly to highway trucks. There were almost no highway refrigerator trucks prior to mechanical refrigeration.
- Movement of major packers from a few central locations (LA, Chicago, KC, etc.) to numerous smaller plants closer to the stock. It is cheaper to move frozen beef than live stock. Texas to LA was a 5-7-day trip.
- Improvements highways made highway transportation of stock more economical and often faster, lessening shrinkage in transit.

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GC&SF San Saba District

Matt Zebrowski has published the contents of a conductor's book for the San Saba Branch of the Santa Fe. This branch ran from Lometa to Brady, Eden, and Menard, TX, an area known as one of the largest producers of wool and mohair in the US. The district forwarded 744 cars of livestock during 1944 and 647 in 1945.

Documenting a 3 week period in 1947, the record shows 4 cars of stock moving from San Saba to Purcell, OK; 2 cars of cattle moved from San Saba to Friona, TX; 4 cars of cattle loaded in Eden headed for Monmouth, IL; 2 loads of calves from San Saba to Braunstown, IN; 3 cars of cattle from San Saba to Amarillo; one from San Saba to Windsor, MT, and 1 from San Saba to Hillsboro, OH. During the same 3 weeks, 9 loads of sheep were delivered to the branch. A total of 60 different stock cars were moved on the branch in 3 weeks, 56 from the ATSF and one each from SP, CN, LN, and ACL.

Retired ATSF conductor, Gordon Locke, gives the following report:

"When I hired out in 1958 a kid born and raised in Houston, I thought being sent to Lometa to work as extra board brakie on #53/54 local was like going to Colorado. Brownwood crew on the local. Black cowboy hats and cowboy boots. While switching around at the stock pens in Brady when one jumped off a stock car and started dancing and hopping around, I thought he was crazy. He was killing a rattlesnake.

"Locomotives on my first few trips Lometa to Eden with side trip to Menard was one geep 2860. Later years as tonnage grew it was 2 geeps. When the sand plants came online in Brady it became 3 geeps to handle the tonnage. I have seen 4-unit F units in spring going out to Melvin and Eden with 100 empty boxcars for grain loading. Grain extras operated during wheat harvest.

"Back in the 50s and 60s on the Santa Fe Southern Division here in Texas livestock was a very big business. Every evening TSF (regular freight west from Temple) usually stopped at Lampasas and would pick up one to five cars of cattle. Most days they were already loaded from trucks backing up to the cars on the stock track. Further west at Lometa cattle would be loaded and cars spotted to the chute by TSF, usually 3 to 5 cars. Then TSF pulled down to the west end of the small yard at Lometa and on Tuesday, Thursday, and Saturday would pick up the connection from 53-54, the San Saba District local. This would include 20 to 40 cars of livestock (both cattle and sheep). Livestock was always carried on the head end to prevent injury from slack action. However, I remember lots of trips on TSF with a 5-unit 100 class (FT) units and 140 to 150 cars out of Lometa to Brownwood. The slack action on the hogbacks there with that many cars and that old power had to injure lots of cattle."

"The San Saba District Local was another story. It was mostly livestock. Eden and Menard were big time cattle and sheep country. There was a man contracted to load stock. He had a 1947 Plymouth Coupe. He had a Judas goat that sat in the front seat with him and chewed tobacco. This guy drove ahead of the train and was ready to load when the train arrived at a station. The Judas goat would run up the chute into the cars and the sheep would follow. When they were

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loaded the guy whistled and the goat ran out over the backs of the sheep. This train usually brought about 40 loads of stock into Lometa."

"Every spring the Owens Brothers Ranch in San Saba would load several trains of yearlings to Colorado to summer pastures. This was fun. There was a caboose hop with 2 geeps out of Temple at 0400. It picked up 75 empty stock cars at Lometa and ran out on the branch to load cattle and eat BBQ all day. It would return to Lometa and run to Brownwood in 16 hours. They cannot get over the road today like we did."

William Osborne has written a thorough history of the San Saba District including information on stock movements.

See also *An Analysis of Stock Movements at the Purcell, OK, Feeding Station, 1939*. Also see *An analysis of movements at San Bernardino, 1943*.

For some photos of stock movements in the 30s and 40s, go to <http://memory.loc.gov/ammem/fsaquery.html> and search for "stock railroad," "sheep railroad," "cattle railroad," and "hog railroad."

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Paperwork

Since livestock is "live stock," not dead freight, more paperwork was required to keep track of liability and health.

- **Livestock Freight Waybill Form 1846** was used for single consignments, carload, and LCL shipments. This was the master paperwork for the shipment. Chester French has provided an interesting Wabash Waybill, 1955.
-
- **Form 67 Uniform Live Stock Contract.** Here is the contract for the above waybill.
- **Form 822-B** tracked the movement of the stock: car loaded into, car transferred to, number loaded, number reloaded, pen condition, any injuries or death, feed consumption.
- **Form 2232**, the 28 Hour Law and the 36 Hour Release kept up with when the stock were loaded and when and where they needed to be unloaded to meet the requirements of law.
- **Stock Yard Foreman's Record** told of the number of cars, loading and unloading times, delays, condition of pens, stock, and bedding.
- **Station Record of Livestock Forwarded Form 1558** tracked the condition of stock as inspected at particular stations.
- **Form 808 Conductor's Trip Record** was a diary of every trip and every stop.
- **Form 903 Train Consist** listed loads and empties and other cars in a freight.
- **Form 618A Switch List:** This is not the normal use of this document, but numbers of these have been found. Provided by Matt Zebrowski.
- **Live Stock: Now That it's In our care - Load it Properly, Move it Promptly, Handle Carefully** (1946 ATSF publication)
- **History of the Chicago Union Stock Yards** (1953)

Many of the above documents can be found on this website.

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Compiled by J. Stephen Sandifer

Form 822-A Standard 407

Santa Fe

Station Albuquerque Date Aug 18 1939

Origin Manuel, Tex Destination Wichita, Okla

W/V numbers and date 232 233 3 8/14/39 Moore, Kansas

Consignor Wm. R. Roberts, Inc. Hutchinson, Kansas

Consignee W. H. Anderson, Hardness, Okla

TRAIN	CAR NUMBER	TRANS FERRED TO CAR	KIND OF STOCK	HUMANE UNLOADS	UNLOADS ALLOWED	FEED NUMBER	FEED OF ANIMAL	UNLOADS	FEED
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
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16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
TOTALS									

Feed Bill No. _____ If Hay, No. Bales 22

Kind of feed Alfalfa hay Weight _____

This form for use of agents at feed and destination stations for furnishing exact copy of form 822-Std. or 822-14 hto. when called for by Superintendent or Claim Department.

STOCK YARD FOREMAN'S RECORD

(a) This particular train, or cut of cars, commenced unloading at 8:20 AM Aug 18 1939

(b) Was unloading continuous and uninterrupted? Yes

2. This particular shipment finished reloading 4:10 PM M. Per

3. The particular shipment began reloading 4:10 PM M. Per

4. (a) Time reloading various other cars, including the shipments finished 4:20 PM Aug 18 1939

(b) Was reloading continuous and uninterrupted? Yes

5. (a) Explain any delay in unloading _____

(b) or reloading _____

6. Condition of pens good

7. Condition of stock good

8. Condition of bedding good

9. Was there a caretaker in charge? _____

10. Did caretaker order special feeding? If so, what? _____

11. What complaint, if any, made by caretaker? _____

12. (a) Quality of feed and water furnished good

(b) Were water troughs clean when filled with water? Yes

13. (a) Explain any irregularity in unloading, (b) or reloading, which might cause damage, shortage or delay _____

14. (a) Name of employee who counted stock from car when unloaded Smith

(b) When reloaded Smith

15. Number of animals left in yards _____ Reason _____

16. Disposition of animals left in yards _____

17. Apparent cause of damage _____

18. Was there any chance for stock to become mixed while in yards? _____

19. (a) If any bulls in shipment were they tied on arrival? _____

(b) Departure _____

20. (a) If mixed species, were they separated by a strong and sufficient partition on arrival? _____ (b) Departure? _____

21. Were any overloaded? _____

22. If cattle, did they have horns? _____

GENERAL (STOCK YARDS FOREMAN OR AGENT)

23. If held beyond first connection after legal rest, explain why _____

24. If shipment consisted of dogs, was car wet down? _____

25. REMARKS (Additional information which might have bearing on claim handling) _____

AGENT'S RECORD

26. Arrived train No. _____ Date _____ Time _____ M

Conductor _____

27. Departed train No. _____ Date _____ Time _____ M

Conductor _____

28. Why unloaded? _____

29. (a) Was shipment released to 36 hours on arrival? _____

(b) Was release executed at your station? _____

30. Authority for sale, and disposition of amount realized for any over, crippled or dead animals _____

31. (a) Was there any rough handling or unusual switching in yards before unloading? _____ (b) or after reloading? _____

32. Weather Clear Average temperature _____

Foreman of stock yards _____ Signature of employee supervising unloading _____

_____ Signature of employee supervising reloading _____

Names of other witnesses _____

NOTE: Answers to questions and should not be confused with _____

Form 2232 9-66-15M

AUTHORITY TO CONFINE LIVE STOCK FOR THIRTY-SIX HOURS

Dated at _____ 19__

I hereby request and authorize all carriers transporting a shipment of _____ cars of _____ (State whether cattle, sheep, horses, etc.)

loaded at _____ Station, at _____ M. _____ 19__

covered by the following waybills:

Road	Name of Station	Waybill Numbers	Date

to confine said live stock in cars, during the transportation to the original billed destination or to any point to which diverted or reconsigned, for periods of thirty-six hours each, without unloading the same for feed, water and rest.

(Owner or authorized agent)

Witness _____

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Model Operations Possibilities

For the modeler, a cycle can be observed in the handling of a car.

- Empty car requested from the yard.
- Bedding is supplied either in the yard or at the loading pen.
- Stock are loaded in the car with a locomotive attendant to the process.
- Cars are moved immediately to the interchange or forwarding yard.
- They are attached to the headend of a manifest train.
- Cars are serviced in route at 28/36-hour intervals.
- They are delivered to the destination yard and immediately...
- Delivered to their destination and unloaded with a locomotive attendant to the process.
- Empty car could be left at the siding or continue with the loco to the servicing yard.
- Empty is taken to the clean-out track to be cleared of bedding and steam cleaned.
- The car is now ready to be reassigned.

Other considerations for the modeler would include providing gondolas of sand to the various loading facilities, water and hay for a remote stockyard, various feeds for major feeding stations, the removal of wool from sheep shearing facilities, the removal of dirty bedding from feeding stations and clean out tracks, allowing time for loading and unloading, or the intricacies of the packing house. One could even put a cow on the track to see if the local will stop before hitting it.