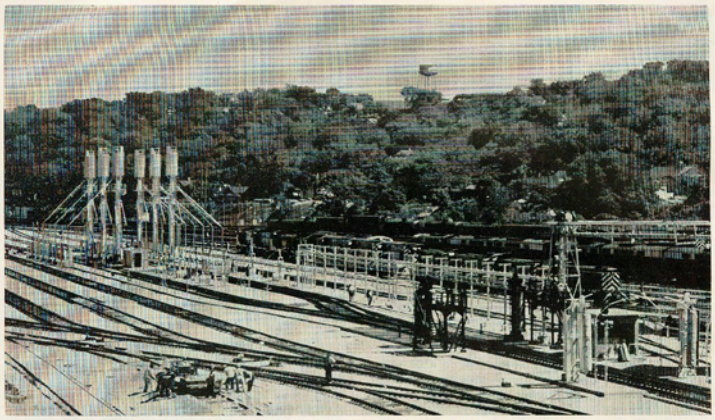
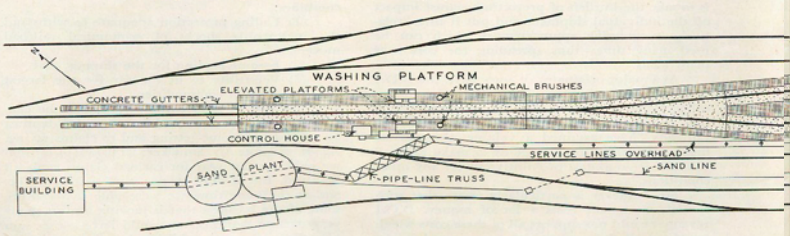


SERVICING OPERATIONS are divided into three principal groups: Sanding; fueling, watering and lubrication; and washing. Engines enter at sanding station (left) and exit from washer platform (right). Tracks in left foreground are a portion of 16-track storage and ready yard adjacent to the new diesel shop.

ARGENTINE DIESEL FACILITIES — Part II

Speedy Locomotive Servicing

Three-track layout gives production-line handling to engines through sequence of sanding, fueling, watering and cleaning operations



LAYOUT of servicing facilities includes three tracks. The two used by road engines converge into a single track through the washer platform, while a third track, by-passing the washer, is used primarily by switch engines.

Complete servicing of three-unit diesel locomotives with a minimum number of movements—this was the Santa Fe's goal in designing the outdoor servicing facilities at its new Argentine diesel terminal* in Kansas City. After observing operations on these servicing tracks, one has no doubt that this goal was reached. On the average, locomotives are able to move through the entire servicing line in about ten minutes per unit, and with only two stops.

The new servicing layout is located along the south side of the diesel terminal on leads extending directly from main Argentine yard tracks and main lines. All incoming locomotives are routed through the servicing line upon arrival at Argentine. After servicing, the units are moved to storage or ready tracks or delivered to the diesel shop for further attention when required.

Servicing at the outdoor installation includes filling with sand, fuel, boiler water, radiator water and lubricating oil, in addition to truck and body washing. The facility is laid out on three tracks. The two used by road engines converge into a single track passing through the mechanical body washers, while the third track, used principally for switch engines, bypasses the washers.

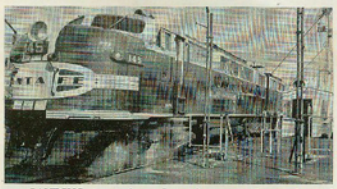
Six Sand Towers Used

At the east end of the three tracks, where incoming engines arrive, are six Fairbanks-Morse sanding towers, three in each of the intertrack spaces. These towers are spaced 50 ft apart so a three-unit locomotive can be spotted on any one of the three tracks and have sand boxes filled without respotting. Each track is supplied with six sand hoses on each side. Sanding is done from elevated steel walkways along each side of each track. The walkways are equipped with small retractable platforms at all hose locations to permit the attendants to stand close to the locomotive while sanding. The platforms automatically retract when the attendant steps off, thus maintaining the required side clearance.

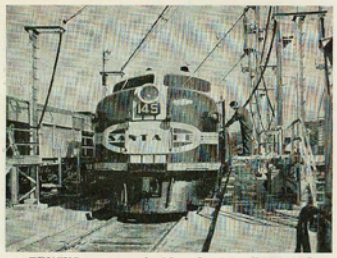
Following the sanding operation, locomotives are moved to the fueling and watering platform. Upon entering this portion of the facility an electrical track cir-

*The major element of this terminal, a large diesel repair shop, was described in Part I of this series, which appeared in the November 29 issue.

Three units in 30 min. . .

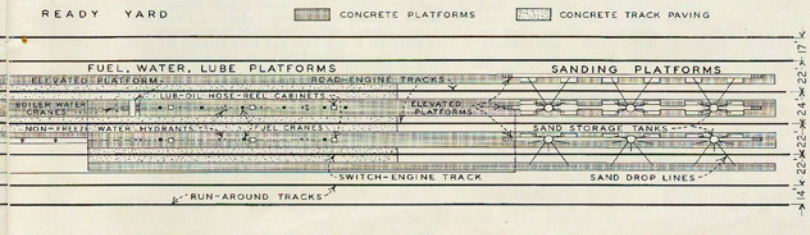


1 SANDING is performed at first stop from elevated steel platforms with retractable sections which permit attendants to stand close to engines.

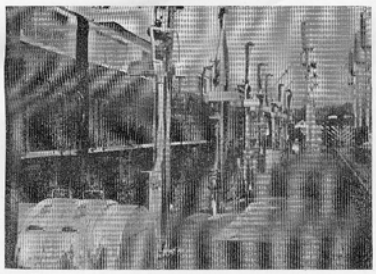


2 TRUCKS are sprayed with a cleaning solution as locomotive leaves sanding platform. An electrical track circuit controls solution sprays automatically.

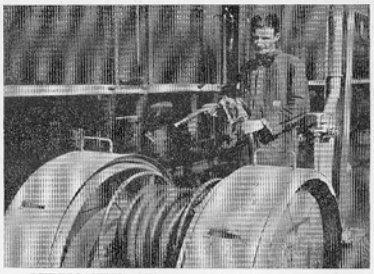
More on next page ► ► ► ► ► ► ►



Effective arrangement of facilities enables three-unit locomotive combination to pass through entire service line in about 30 min with only two stops. Movement of engines is from east (right of drawing) to west (left of drawing).

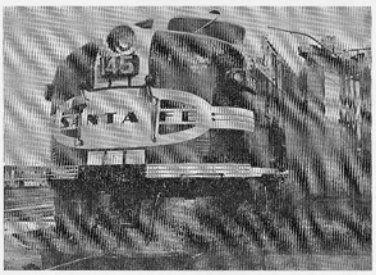


3 FUELING and watering are performed at the next stop where sufficient fuel and water outlets are available to give one-stop service.



4 LUBRICATING OIL is supplied from steam-heated cabinets at intervals along fueling and watering platform. Hose reels have an air-driven rewind mechanism.

6 WASHING of engine body is done by mechanical scrubbing brushes following application of cleaning solution. Men on elevated platform scrub top of units.



7 LOCOMOTIVE emerges from rinsing sprays and brushes completely serviced and ready for duty or to be moved to diesel shop for mechanical attention.

cuit is closed to start automatic truck washing sprays which apply a cleaning solution to the entire truck assembly. High pressure water at 250 psi is also available at this point for manual truck cleaning using special high-pressure nozzles that one man is able to handle. These high-pressure hoses are also used to wash down the platform area.

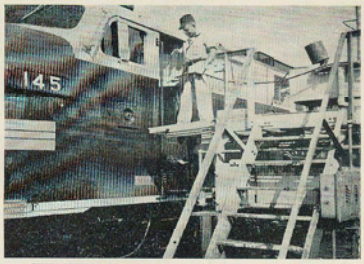
Fueling, Watering and Other Services

At the fueling and watering platform three-unit engines are again spotted only once for complete servicing to all units. There are eight fuel-oil cranes supplied by the Snyder Company, and six similar cranes for supplying boiler water. Lubricating oil is furnished through air-driven hose reels which are enclosed in steam-heated cabinets, three of which are located at intervals along each platform. Radiator water and fresh water are supplied to the platform through Murdock anti-freeze hydrants.

Another service performed at the fueling and watering platform is the sterilizing of engine drinking water containers. This is done with a high pressure steam cleaner mounted on an elevated platform. This platform is also equipped with a retractable section which allows the attendant to step back and forth between the engine cab and the platform. Engines at this spotting also receive a thorough cleaning inside, engine adjustments, minor repairs, test of air brake equipment, etc.

The final stage of servicing operations is carried out at the washing platform. The engines move slowly across this platform without stopping. First in the washing sequence is a high-pressure truck-rinse spray which washes off the cleaning solution applied earlier, thus completing the truck washing. Mechanical body washing is then commenced by application of plain water to the entire engine with body sprays. Following in sequence are cleaning solution sprays, scrubbing brushes, rinsing sprays, rinsing brushes and, finally, two rinsing sprays. All of this equipment was supplied by the Whiting Corporation.

Between the scrubbing brush and the first rinse spray, manual scrubbing of the locomotive roof is performed



5 CLEANING of cab interior, as well as sterilizing of drinking water containers and miscellaneous servicing tasks is handled at this elevated steel platform.

from elevated platforms also equipped with retractable platforms like those previously mentioned.

All of the ground-level platforms at the servicing facility are of reinforced concrete construction. In the vicinity of the mechanized body scrubbing brushes, the concrete slab is covered with 1½ in. of Johns-Manville acid-resisting asphalt mastic industrial flooring. Between the west end of the sanding platform and the end of the washing platform the two road-engine tracks are supported on a concrete slab. The slab is sloped to the center of the track and is equipped at intervals with drop inlets leading to a storm sewer system. The track for switch engines is similarly constructed adjacent to the fueling platform.

Most of the service lines from the service building and central power plant are carried overhead along the platforms on a row of steel columns. Supply lines are elevated over the switch engine track at the west end of the facility on a steel truss system. At points where service lines are below ground, they are contained in galvanized steel pipe conduits nested in Gilsulate loose-type insulation.

Mechanical washing operations are all controlled from a small brick building situated about the middle of the washer platform. A small metal building at the west end of the sanding facilities is used for records and for checking crews in and out.

A service building near the west end of the servicing tracks houses pumping equipment, cleaning solution mixing tanks, a lubricating oil booster heater and various other equipment necessary to operation of the servicing facility. Sand storage and drying facilities, also near the west end of the service tracks, are part of an old sand plant which has been converted to serve the new installation.

The servicing facilities were built by the Winston Brothers Construction Company, Minneapolis, Minn. A. W. Johnson, steam heat and water service engineer of the Santa Fe, Eastern Lines, had direct supervision over the design and construction of these facilities.

Santa Fe

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