

Preserving "The Feather River Route"

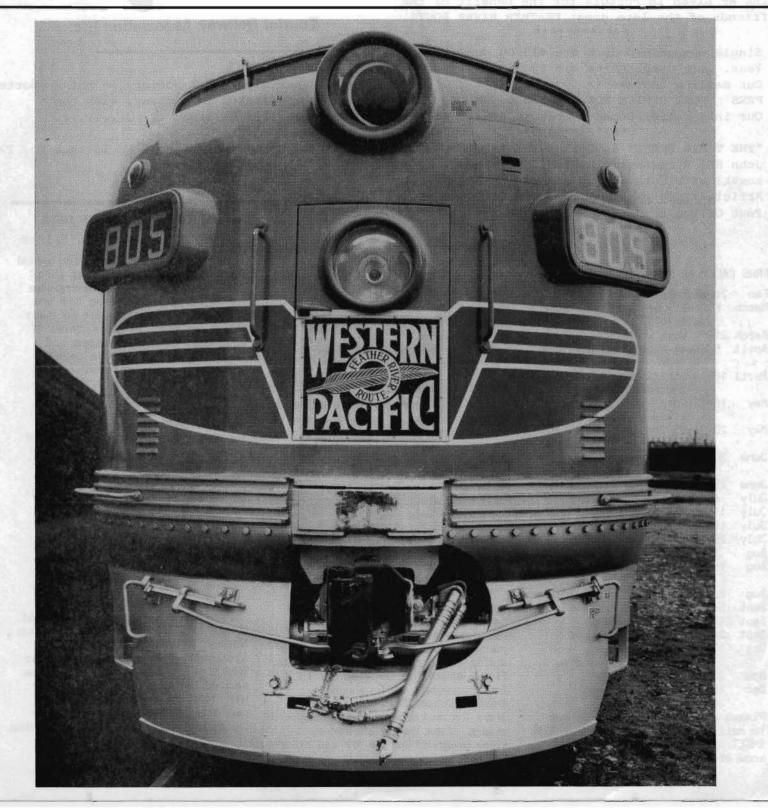
JANUARY FEBRUARY 1987

ISSUE No. 23

\$1.50

The

Train Sheet





Feather River Rail Society

Preserving "The Feather River Route"

The FRRS, a tax exempt public benefit California Corporation, is the HISTORICAL SOCIETY for the WESTERN PACIFIC RAILROAD and operates the PORTOLA RAIL-ROAD MUSEUM in Portola, Calif.

Formed in February, 1983 with the purpose of preserving railroad history in general and Western Pacific Railroad history in particular. The WP LIVES in Portola for the benefit of the friends of the late great FEATHER RIVER ROUTE. **********

Single membership dues are \$15.00 per Calendar Year. Life memberships are \$300.00.

Our mailing address is.....

FRRS POST OFFICE BOX 8 PORTOLA, CALIF. 96122 Our information phone number is 916-832-4131

"THE TRAIN SHEET" is Edited and laid out by John SKI Ryczkowski. Assisted by Mary Ryczkowski with typesetting and proofreading. Articles/Info please write, THE TRAIN SHEET Post Office Box 1663, Sparks, Nevada 89432

FRRS CALENDAR FOR 1987

Feb	28 Winterail-Stockton						
March	8 Great Western Train show						
	Vallejo						
	21-22 Work Weekend						
April	5 Great Western Train show						
	Vallejo						
April	18-19 Social meeting, rules						
	and mech. class						
May	16-17 Work Weekend, training						
1.0	clean up for opening						
May	23-24-25 2nd Anniversary of						
-	Grand Opening-Operations						
June	20-21 Work Weekend-June 20						
	Annual Membership Meeting						
June	27-28 Operating Weekend						
July	4-5 Operating Weekend						
July	11 WP Railfan Day-Swap Meet						
July	18-19 Work Weekend						
July	25-26 Operating Weekend						
Aug	1-2 Motor Car Races						
Aug	15-16 Social Meeting, Work						
	Weekend						
Aug	22-23 Railroad Days-Operations						
Sept	5-6-7 Operating Weekend						
Sept	19-20 Work Weedend						
Sept	26-27 Operating Weekend						
Oct	17-18 Social Meeting, Work						
	Weekend						
Nov	21-22 Work Weekend						
Dec	12 Social Meeting						

Please post this calendar as due to mail and other delays the TRAIN SHEET mite be too late to let you know of a happening at Portola..

has set it's schedule for 1987
Memorial Day Weekend May 23-24 & 25 Independence Day July 4 & 5 Ely Centennial Aug 1 & 2 Labor Day Weekend Sept 5-6 & 7 81st Anniversary of the NN Sept 26 & 27

Member Dave Dodds of Hacienda Heights sends this list of up coming events in southern California..... March 7-Orange Empire Railway Museum Perris, Cal Swap Meet 9 to 3 PM March 14-Ventura Model RR Club Swap Meet, Camarillo Community Center 1605 E Burnley Camarillo, Cal. April 25,26-Cornfield Meet Show Pomona Fairplex, Pomona

LAST MEETING

Thirty-eight members attended our December meeting. Department heads gave reports and the by-law changes were discussed. The annual membership meeting was changed to during the summer now on June 20th. Please check this issue of the TS for a complete 1987 calendar. Debbie Canino, Barb Holmes and Mary Ryczkowski furnished refreshments. John Walker showed some video programs on the WP and other lines.....



member



Tourist Railway Association INc.

The Feather River Rail Society is not supported by, nor affiliated in any way, with the Western Pacific Railroad.....

THE TRAIN SHEET, Volume No.5 No.1 Issue No. 23 with 700 printed

FROM THE PRESIDENT'S DESK

Norman Holmes

Membership response to our appeal for a little extra along with their 1987 dues was most gratifying. We try to be very careful on how we spend our funds, there are so many things we need, so many pieces of equipment in need of repair and restoration and there are ongoing expenses (insurance, utilities, printing, postage, etc ...). Our progress in acquiring equipment has been phenomonal, our restoration progress needs improvement. Plans for this summer include painting of several locomotives and cars, completion of rip tracks 2 and 3 and improvements in the diesel shop building rest rooms. To be successful we will need help from our membership both physically and financially. Put us in your plans for 1987. Thank you.....

ELECTION

194 ballots were returned. Elected to the 1987 Board of Directors were: Norman Holmes, John Marvin, John Ryczkowski, Wayne Monger and John Walker. Chris Skow and Jim Boynton decided not to seek reelection. We wish to thank them both for their past service. Both will remain active at the museum in other capacities. ISSUE NUMBER 23

SHEET TWO



FP7-A WP 805-A As this issue's cover shows leading every Silver Lady was a Great Locomotive......

The opportunity is currently at hand to save and restore the last Western Pacific California Zephyr locomotive FP7 805-A. In the interest of preserving this classic diesel locomotive, the Feather River Rail Society is working with CTC BOARD Magazine and Mountain Diesel Transportation to raise the necessary monies to allow the FRRS to purchase the 805 and return it to Portola for restoration. Those interested in making a pledge or a taxdeductible donation to the FRRS to be used towards the purchase of the 805 should contact..... Mountain Diesel Transportation 6111 Oakgreen Circle Carmichael, Califronia 95608-1010 or call 916-965-1508 for further information.

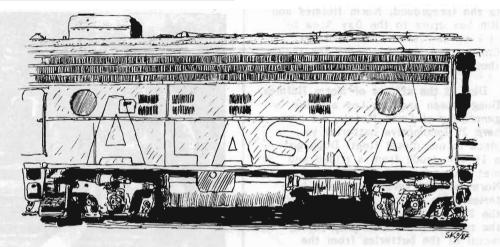
Letters-WE GET LETTERS- a sample Enclosed is my check for membership renewal.....\$15 seems like such a bargain for a museum and a news letter. I've made the check for \$30 to give you some extra for the coming year....Enclosed is our check for 1987 dues. Keep up the good work... Herewith my check for membership in your fine and worthy association.... Along with the field work, I think the "Train Sheet" is outstanding....

HELP WANTED

Prior to WWII, WP ran "snow specials" between Oakland and Norvel on the Highline. We would like to do a story on this service and would appreciate any help our members could furnish on this subject. We also are in need_of copies (org or zerox) of WP's employee magazine "HEADLIGHTS"

George Comer sent in several copies of the missing mileposts we are still in need of the following......

December 1969 From Fall 1978 to May-June 1980 Can you help.....



ALASKA in PORTOLA

Six-count em-six Alaska F7 units are now in the Portola Railroad Museum, thanks to the efforts of Mark Hemphill, Dale Sanders, & Tom Carver.

These members formed Mountain Diesel Transportation Co., purchased the units from the Alaska Railroad and had them transported by Hydrotrain barge to Seattle. UP graciously agreed to transport them to Portola without charge as they are leased to the FRRS for display and use at our museum. We now have more preserved covered wagon units than any other museum.....

They are

1506	F7A	
1507	F7B	
1508	F7A	
1510	FP7A	
1512	FP7A	
1517	F7B	
	1507 1508 1510 1512	1506 F7A 1507 F7B 1508 F7A 1510 FP7A 1512 FP7A 1517 F7B

EQUIPMENT ARRIVALS

Union Pacific has again honored our request for the donation of Western Pacific equipment to our preservation efforts. Double plug door insulated box car WP 64004, ballast car WP 10649, a 50 ton Brownhoist crane WPMW 90, a 50ft 1925 flat car WPMW 79-4 and UP CA-5 caboose 905003, have all been added to our collection. Only a few more cars are needed to complete our representation of all WP car types. And as the TS is being prepared GP-7, 707 has arrived in Portola. Dave McClain was going to give it a once-over and hopefully no more damage was done to it as it sat open in Salt Lake City. Dave and Ski on their last trip to SLC got all the parts needed to repair the damage caused by transients.

DONATIONS

Santa Claus was good to us this year. In addition to a goodly amount received in donations from members along with their 1987 dues, we received the following:

All the F units were purchased new by the Alaska Railroad except 1517, a F7B, which was originally a D&RGW unit. Plans are to repaint the FP7A's into WP's passenger diesel color scheme. All units except 1507, a F7B, are in operable condition, but will need minor repairs. No. 1507 needs engine work, a main generator, traction motor leads, complete wiring and other parts. It has a good body, however, and "B" units are rare. We are extremely fortunate to have these units in our museum. Although thousands were built, fewer than 100 remain today. Plan a trip to Portola and look over these units it's worth the trip

From Mark Hemphill and Tom Carver Alaska Railroad car No P-4. This is a former WWII Army kitchen car converted to a power car (steam generator, power plant and air compressor) for service on Alaska's first Streamline Passenger Train.

From Dale Darney, six old WP station track blue prints showing track diagrams of Keddie, Reno, Sand Pass, Gerlach, Winnemucca and Elko. ca. 1913-1927....

From Jim Harper, two caboose markers and a switch lamp..... From Mary Jo Leigh, a box of

telegraph office paper items.

Former Western Pacific President Myron Christy knew of some important artifacts our museum would like for our collection. He contacted Mrs. Walter Brumberg and arranged for the donation of the binnacle from WP's tugboat HUMACONNA, steam bell from WP #71, a three foot square linoleum mural from a CZ club car, a builders plate from WP #260, a CZ cookbook and a framed poster depicting a San Francisco scene with the Las Plumas in the foreground. Norm Holmes and Jim Ley drove to the Bay Area to pick up the items. We thank Mr. Christy and Mrs. Blumberg for their thoughtfulness and generosity.

Due to the efforts of Norm Holmes, Doug Jensen and Jim Ley and the generosity of Levin Metals, we now have 20 locomotive batteries to place in our diesel fleet. Doug got a $1\frac{1}{2}$ ton truck from a friend and met Norm and Jim in Richmond. Norm brought seven bad order batteries from Portola as trade-ins for the 20. Doug arrived first and had the cables removed in prep for removal of the batteries from the soon-to-be scrapped SP U33C's. With the help of Levin's fork lift

the 400+ lb batteries were loaded onto the two trucks. Also removed some misc. items including a water cooler, brake valves, and radio parts. Back in Portola, the batteries were charged and seem to be OK. Each locomotive needs eight batteries (8 volts each, for a 64 volt system) A new set of batteries cost about \$2000

Retired WP Road Foreman of Engines Norman Roberts died in Oroville in December after a long illness. The family requested any donations to his memory be made to our Rail Society. All donations received are most appreciated.

In 1985, Norm Holmes advanced the money needed to purchase our Santa Fe diner. As funds never seemed to be available for repayment, Norm decided to donate the diner before years end. Norm also donated a 1957 PFE ice reefer car he also purchased in 1985. In addition he donated a steam boiler, a number of motor car wheels, along with many misc. parts.....

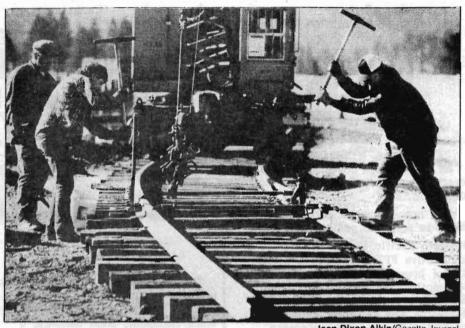
Bob Barlow & Associates, a Blairsden real estate firm, donated a good used IBM copy machine. This will be very useful and is most appreciated. Thanks all.....

Additional Donations.....

Thanks to the UP Portola Train-Master we now have a number of steel lockers to place in the diesel shop building. Once in place members will be able to keep a change of clothes, tools, etc. in their own locker.

Dr. Carl Bajema sent us a nice 24"X36" relief map of the High Sierra country. This will make an interesting display for our visitors.

John Hachey donated plexiglass for the missing window glass in



Jean Dixon Alkin/Gazette-Journal

WORKIN' ON THE RAILROAD: Ken Rollins, left, Hank Stiles and Matt Parker, members of the Feather River Rail Society, put down new railroad ties and rails as they expand the tracks at the Portola Railroad Museum. The storage area also was expanded. Winter hours for the museum are Saturday and Sunday, 10 a.m. to 4 p.m.

2001. The plexiglass will be installed as soon as weather permits. Restoration of this locomotive is our number one priority this year.

Norm Holmes added up the bills and found he had paid \$475 for long-distance phone calls made for the museum in 1986. Norm also put over 5,000 miles on his pickup doing museum business.

CONTRIBUTING MEMBERS

The following 56 members have contributed \$2702 to our general fund with donations ranging from \$5 to \$500. We used this money to purchase 2000 gallons of diesel fuel for our operational diesel locomotives. With the price of fuel going up every day, we felt it was dollar-wise to purchase the fuel at this time and thanks to the generosity of our members we were able to do so. Those contributing in December and January were:

Mark Acuna James Atkins Charles Bach R. J. Beall Ted Benson Dallas Berry Dennis Gilkey Steve Habeck Diane Hale Robert Hamilton Jim Harper

Mary McCullough Rick Merle Tom Messer Mayers Family Stanley Miller John Noonan Stanley Thompson Charles Givens Leland Thwaits Steven Unger Robert Wilson Thomas Yagerhofer Drew Blanchar

PORTOLA TRACK WORK

Track work continued through Dec with the unseasonable good weather. Ken Roller worked almost daily spiking, aligning and tamping our newest track connection to the old rip track. This track is now in service and as soon as switch parts are found construction of Rip #2 will begin. Also assisting in track work were Jim Ley, Mat Parker, Steve Hunter and others.....

John Bradley Richard Canino George Comer John Cone Joel Cox Donald Davella William Decker Robert Dobbins William Garner James Gridley Lyn Held Josiah Jenkins Patrick Kennedy Fred Klyver Michael Knight Robert La Force Peter Langdon Thomas Lawler Jeff Lyons

Renee McComb Casey McCord Jack Palmer William Redding Larry Richards Gary Richardson Don Richmond Robert Rohwer Ralph Ross Richard Rowe Richard Simonsen Eric Simpson David Tateosian



RENEWAL TIME!!!

It is time to renew your memberships. We hope you have enjoyed your association with us during the past year. As you renew please check the mailing label to be sure that all of the information is correct. Should there be an error please let us know.

The goal this year is to get everyone to renew, so far we have 188. Please get your renewals in as your continued support is needed to make the FRRS a success.

To the 24 new members and renewing members, welcome and if you have any problems or questions just contact us.

We would also like ideas from you on how to improve our membership system. What would catch your attention in the Train Sheet and make you want to renew?

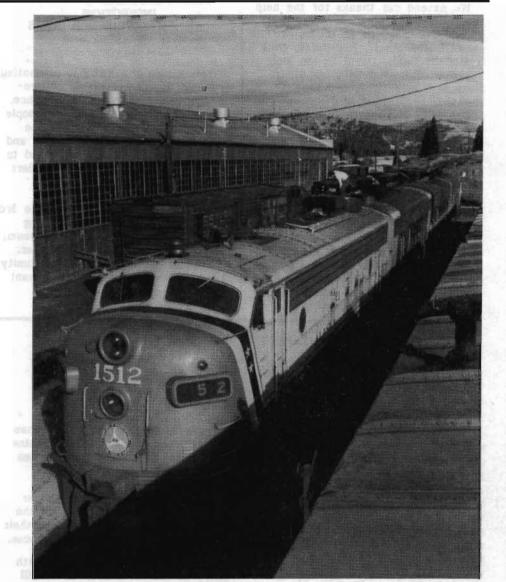
We have just added 8 more members to the Life Members Roll. Last year we had 5 life members.

1986 Life Members R. G. Flannery Robert Dobbins R. L. Hussey Dave McClain E. T. Lavelle 1987 Life Members David Dodds Larry Hanlon Philip L. Wyche Jr. Doug Peterson Jerry Foote Lynn Held Fred K. James Christopher Young

And Around the Museum

December 17th, nineteen preschool children made the trip from Reno to Portola to go for a ride on our train. WP 608 and two cabooses did the honors assisted by Jim Ley, Rose Hersted, Dean Hill, Mel Moore, and Norm Holmes.

Other railroad museums and tourist railways do it, so Jim Ley surmisedwhy don't we do it run a Santa train. The Eastern Plumas Chamber of Commerce sponsored a Christmas Craft Sale on Sat, Dec. 20th. We offered free train rides from noon to 2 pm with Santa Claus riding the train. The weather was cool and clear and a number of children and parents came down for a ride. The gift shop was open, which netted us a good amount of sales. Sometimes something for nothing pays .. Participating in the event were Dean Hill, Norm Holmes, Jim Ley, Steve Milward, and Mel Moore. Hap Manit handled the museum gift shop. Rose Hersted and Barb Holmes were in charge of sales at the craft fair.



It has been many years since an A-B-B-A set of EMD F units sat along side the Portola engine house.....

1987 TRAINING PROGRAMS

Watch the next issue of the TS for a schedule of the operating crews rules and training classes. We are in need of more members to become part of the operating dept and if interested please write to SKI and be on the list as a operating dept member, we are looking forward to having you. Also member Brian Challander has presented a diesel engine repair

class proposal. Please find the info in this issue of the SHEET.....

SALES DEPARTMENT

SPECIAL

Chris Skow

The new ALL COLOR book "Zephyrs Thru The Rockies" is off the press and we have it in stock. This book is a work of art....a must for anyone that loved the old California Zephyr and Rio Grande Zephyr.



SHEET THREE

THE RIO GRANDE ZEPHYR

Buy from us and save! List price for Hardbound is \$39.95--Our special is only \$32.95. Softbound is only... \$24.00!!

Cal residents MUST add 6% sales tax Postage: orders under \$50 add \$2.50. over \$50 add \$3.50.

Up coming events include a sales booth at Winterails in Stockton on Feb 28th, and booths at the Great Western Train shows on March 8th and April 5th at the Solano County Fairgrounds in Vallejo. Also we will have a sales team at the Cornfield Meet 87, on April 25th and 26th at theLos Angeles County Fair in Pomona.

We extend our thanks for the help the following people gave us either at our Gift Shop or at the sales shows: Hap Manit, Pat Duffy, Nick & Dorithy Baldi, David Dodds, Bob Thrasher, Skip Marshall, Mr & Mrs Hartung, Chris Skow, and Rose Hersted.

Our 1987 catalog is out and a copy of it has been mailed with this issue of the TRAIN SHEET. If you want extra copies or know of someone who would like a copy please let us know. As you can see we have gone all out to bring you some of the best railroad type merchandise on the market today. We are offering you big discounts on the market today. We are offering big discounts on just about everything in the catalog. Order from us and save. You will be helping a great museum grow.

DIESEL-ELECTRIC LOCOMOTIVE INSPECTION AND MAINTENANCE CLASS

This spring the FRRS is presenting a course on Diesel Electric Locomotive Inspection and Maintenance.

The course is designed for people who have little or no experience with EMD locomotive operation and maintenance. If you ever wanted to work on or to know how a modern locomotive works, here is your chance.....

We will run the course on the 3rd weekend in each month, starting April 18th at 9 AM in the museum. The course will end in November.

Students will have the opportunity to work on the museum equipment and learn at the same time.

News of the "FEATHER RIVER ROUTE"

Wayne Monger Union Pacific News Editor CTC BOARD Magazine

Once again in 1986 your Society hosted the National Track Motor-Car Championship Races at the Portola Railroad Museum during the month of August. Due to operational conflicts and limited time when the 1985 races were held during Railroad Days, the 1986 races were scheduled on a separate weekend. This created an opportunity to see how well the event would do on its own, attracting visitors to the museum and the Portola area for the weekend.

The weekend of August 2nd and 3rd was selected for the 1986 National Track Motorcar Championships, halfway between the FRRS Railfans weekend and Railroad Days. The overall event was considered moderately successful from the standpoint of the number of motorcars in attendance and the approximately 150 spectators on hand to view the races Sunday morning. The 1986 races found 8 of the 13 participants from the 1985 races returning to try their cars against the clock and each other over the 300 meter length of museum trackage. They were FRRS members; Steve Milward of Portola, Vic Neves from San Leandro, Ca., Jim Atkins of Sacramento, Dale Wyant of Oaji, Ca., Tom Moungovan of Sebastopol, Ca., Steve Bush of Colfax, Ca., and Richard Brickell of Reno, plus motorcar owner Davis Rangel and crew from Fresno, Ca. The 1986 races had 5 new participants; FRRS president Norm Holmes, Robert



Fansler of Sebastopol, Jon Kirchanski of Woodacre, Ca., Steve Santos of Fresno, Ca., and Robert Mahan of Oxnard Ca. FRRS members John Ryczkowski, Dave McClain, Greg Brahms, and Wayne Monger did not actively participate in the Motorcar Races this year with their cars as they did in the 1985 races.

We also had a very special 14th entry in the races (thanks to Bill Timmons and the Ca. State Railroad Museum in Old Sacramento), an all-star team with official handcar from the U.S. National Handcar Races. The efforts of the California team, the FRRS, and the National Track Motorcar Championship netted some good publicity before the event of August 3, as the CSRM people held a mock race between the handcar and a motorcar for the cameras of the Sacramento TV stations. This TV plug plus several newspaper notices in California and Nevada provided a good level of advance publicity, but unfortunately, there were no TV crews to cover the actual event. A contributing factor to the low spectator attendance was the draw of the American Association of Railroads special passenger train run westbound through the Feather River Canyon.

The 1986 competition was broken down into three different categories to make the competition more even. The three classes of motorcars were; one-cylinder, two-cylinder, and the unlimited class of four cylinders or more. Due to safety We are going to limit the class to 25 people and a course fee of \$25 to cover expenses will be required at the time of registration. If you are interested please write to.... Brian Challander P.O. Box 769 Homewood, Calif. 95718 916-525-4835 More info next sheet.....

the Sharth mill of

considerations discovered during the 1985 races, the starting area was at the new concrete walkway near the engine house while the finish line was out at the beginning of the balloon loop. As before, each motorcar and operator/owner was given the chance to make three runs over the 300 meter long track for the best time.

Eight of the 14 competitors were in the one-cylinder class. Coming in first place with a time of 33.16 seconds was Robert Mahan of Oxnard, with his former Ventura County Railway Fairmont S-2. Second place went to Norm Holmes with a time of 35.29 seconds in his "little buttercup", a Fairmont F-9 previously owned by the WP. Third place went to Steve Milward with a time of 35.79 seconds in his former WP Fairmont M-19. Fourth place went to Dale Wyant with a time of 40.50 seconds, operating his Fairmont M-9, which is still used on the Ventura County Railway. Fifth place went to Steve Bush of Colfax, who had two runs with the same time of 41.45 sec. in his Fairmont M-19, built for the Sacramento Northern Railway. Wayne Monger did not operate his Fairmont M-19 in the races because of his master of ceremonies duty.

In the two-cylinder class there were four cars competing. Once again this year Richard Brickell with his repowered Buda from the Virginia and Truckee won first place with a best time of 33.05 seconds. Close behind in second place was Tom Moungovan with a time of 33.64 seconds in his Fairmont M-19-AA, formerly from the WP. In third place with a time of 36.04 seconds was new entrant Jon Kirchanski, with his former WP Fairmont M-19-AA. In fourth place was another new entrant, Steve Santos of Fresno. Steve had a best time of 38.87 seconds with his former Cotton Belt Fairmont MT-19.

i us aplear at the braft f

There were only two entries in the unlimited class, and this is where the true "Man vs. Machine" contest took place. Dave Rangel and crew walked away with the fastest times for the 300 meter run with their Fairmont A-8. dubbed by the other motorcar operators the "Flying Phonebooth". This car, which came from the G M&O RR, zipped over the track in 31.06 seconds, powered by a V-6 engine. The all-star crew from the California State Railroad Museum on their handcar from the U.S. National Handcar Races came in second in this category, with a very respectable 36.23 seconds. To say the least, four big guys pumping away on a handcar and getting times that were better than half of all the other motorcars was a real crowd pleaser.

The event ran much more smoothly this year, beginning at around 11 AM and finishing just after 1 PM. And once again this year the Motorcar Races could not have functioned without the help of the entire Wollenson Family. Also helping out with the timing of the races was Jim Ley. Vic Neves provided the usual top qual ity sound system.

The 1987 National Track Motorcar Championship Races are now being planned for the weekend of August 1st. There is much interest among the car owners to have the actual races during late Saturday afternoon, instead of Sunday. This will allow the car owners to participate in a pot-luck Bar-B-Q and slide shows that evening and get some more operating time in on the museum trackage the next morning.

If FRRS members are interested in racing motorcars in the 1987 races, several have been donated to the museum by the UP and need work to become operable. If you or anyone you know is interested in actually owning a motorcar.. Robert Mahan of Oxnard has three M-19's from the ATGSF for sale. He is asking \$600 each, to cover his costs of buying them, and transporting them to California from Albuquerque. They are all in operable condition. Contact him at.....

1212 Commerial Ave. Oxnard, Calif. 93030

FEATHER RIVER DIVISION NEWS

On October 13th at around 9am in the morning the eastbound (north bound) STBR train bound for Bieber was approaching the county road crossing at Robbers Creek, five miles north of Westwood on the "Highline". Just as the train was entering the crossing at around 35 miles per hour

a loaded log truck came across the road crossing without slowing down. The collision between the log truck and the train killed the truck driver immediately. The lead locomotive of the train, a GE C30-7 UP-2432. dug into the track after hitting the log truck and flipped end over end through the air, landing clear of the track and facing the opposite direction. The next two units on the train, C30-7 UP-2424 and SD 40-2 UP-3751, sustained moderate and slight damage respectively in the following derailment which included the first five cars in the train. Somehow the head end crew rode out the derailment and gymnastics of the 2432 with only minor injuries and were able to walk away from the mess. The 2432 itself was totaled due to a bent frame and axles, mangled long hood and scrambled internal mechanicals. Both the Oroville and Portola derricks were on hand within half a day to clean up the mess. The 2432 was thought to be too badly damaged to be moved, but the UP put new axles under it and moved all 3 locos back to Salt Lake City in Nov. As the derailment took place at the west end of the Robbers Creek siding the MofW Forces did not replace the switch. Removal of the entire siding was even considered, showing what the UP thinks about the future of the WP's Highline to Klamath Falls, unless the UP does get trackage rights over the SP & BN in the gaps between Los Angeles and Bend, Oregon.

With the increasing amount of double-stack container trains running between Chicago and Oakland, and with the use of the new 48 ft long, 9 ft 6 inch high containers, the UP has had to spend more money on the Feather River Route to accomodate these trains. It was found in 1986 that clearances are not sufficient in some of the tunnels west of Portola for a car with two of these extra-height containers stacked on each other. Thus an over height detector was set up at Chilcoot, east of Portola, to find these carloads. So far over a dozen have been found and set out at Portola to be "fixed". Repositioning of the containers to meet the clearances is handled by the Portola derrick. Summer 1987 should see the elimination of one of the restricted clearances as Tunnel #3 on Altamont Pass is scheduled to be daylighted. Other tunnels that need work to allow the increased clearances are Tunnel #2 in Niles Canyon and #35 at Spring Garden.

The B&L (Boca & Lovalton) branch to Loyalton 18 miles east of Portola, currently sees service about twice per week. Powered with a former WP GP-35 on most occassions one of the operating days is either Saturday or Sunday, making a nice diversion to anyone visiting the museum during a weekend. The 11.8 mile B&L Branch is scheduled for some heavy track work this coming summer by the UP, but we keep hearing rumors that it, like many other of the UP's branchlines around the West, is for sale to any interested branchline operator.

The Former Sacramento Northern branch in Chico is now on the verge of becoming an operating shortline by the end of March. It has been one year since the last UP train left Chico where the history of the SN's predecessor Northern Electric began. Several shortline operators have looked at this line over the past year, but have been chased away by the City of Chico's requirement that a half million dollar bond be posted by the operating railroad. The bond would insure the street trackage in town be removed and the streets repaired if the rail line is abandoned. But thanks to the untiring efforts of FRRS members Tom Messer and Kent Stephens, contracts have been signed by shippers insuring a steady flow of carloads to the new Chico shortline once it is in operation.

Meanwhile, the south half of the SN's Chico Branch is now history. The section between Colusa Junction and the SP connection at Live Oak is now nothing but a bare roadbed. Almost two miles of this line will be seen in a different location as the UP donated the ties and rail from this section to the group in Nevada City that is rebuilding a portion of the Nevada County Narrow Gauge.

Ex WESTERN PACIFIC GP-40's

Former WP 3528 through 3544 have found a new home as of Dec 86. For the past year they had been stored on the UP at North Little Rock, Arkansas, many still in their green and orange paint. In Dec. all were returned to owner GATX now that the original 15 year lease to the WP was over. GATX has now leased all of these units to the SOO Line currently short of power. From recent photos it looks like locomotives from both the Milwaukee Road and the WP are operating together fairly often in the Midwest. Also, the 5 ex-WP GP-40's that have been on lease to Kyle Railway in Kansas were returned. These five 3517, 3518 3520, 3524 and 3525 are also operating on the Soo Line.

SACRAMENTO NORTHERN MARINE DIVISION

For over 21 years, Sacramento Northern's Ramon has been the only electric train ferry in the world. This ferry boat which plys the Suisun Bay between Mallard and Chipps was hailed in 1928 as the world's smallest car ferry, but at the time of her construction in 1914 at Pittsburg, California, by the predecessor Oakland Antioch and Eastern, she boasted the world's largest marine gas engine. This 600-horsepower, distillate-burning, 8-cylinder engine, which still powers the Ramon, was built by the Union Gas Engine Company of Oakland, California. Even by today's standards, its 44-foot length is impressive.

The 236-foot long, steel-hulled Ramon with her 58-foot beam, draws a maximum of 12 feet of water. She is a propeller-driven double-ended vessel, and she was built to replace the ill-fated Bridgit which was destroyed by fire, Thursday, May 7, 1914, after less than a year's service. The Oakland Antioch and Eastern had plans under way to bridge the 2,000 feet of water that divides the electric railway between Oakland Sacramento into two sections when the *Bridgit* and the *Ramon* were built.

On Wednesday, July 2, 1913, the Bridgit had the honor of ferrying the first electric train between Chipps and Mallard. This train which carried officials of the then new electric railroad was the first electric train to run from Sacramento to Oakland. The Bridgit had just arrived from her builders the day before. She was built by Schultze, Robertson, and Schultze, of San Francisco, in 1913.

Unlike the Ramon, the Bridgit was a wooden-hulled vessel, but she had the same three-track arrangement and overhead trolley wires that the Ramon has today. Like the



Large Motor-Driven Railway Train Ferry, "RAMON"

This description of the building of the "RAMON" was sent in by George Comer and is from the July 1915 "International Marine Engineering" magazine.....

Probably the most noteworthy motor-driven vessel outside of Europe has been completed recently in California, and is at the present time in continous service. Both the hull and machinery equipment possess features of unusual interest to those who have followed marine engineering developments of the past few years, and the progress of this installation has been watched with considerable interest by Pacific Coast engineers.

The Ramon, as this vessel was christened, was built by the Oakland, Antioch & Eastern Railway and is being used to transport their trains across an arm of San Francisco Bay. The main line of this road operates between Sacramento and San Francisco, Ca., through the rich farming lands found in the deltas of the San Joaquin and Sacramento rivers, and the construction of the road over this low-lying country has necessitated building many miles of bridges and trestle work. At one point a considerable expanse of water had to be crossed, and it was decided that the most feasible way for negotiating this stretch would be to ferry the trains

Ramon, she could handle six interurban passenger cars or eight freight cars. The Bridgit was 186 feet long with a 57-foot beam and drew 13 feet when loaded. On September 3, 1913, the regular electric train service between Oakland and Sacramento began.

However, the Bridgit was not the first electric car ferry to have been built, although she was the largest at the time of her construction. On August 1, 1912, a gasoline-powered sidewheeler, the Henderson, began carrying electric interurban cars between Evansville, Indiana, and Henderson, Kentucky, on the Ohio River. This little steel-hulled boat could only accommodate two 50foot interurban cars on its one track. The little Henderson bowed out in the early 1920's leaving the undisputed title of the world's only electric train ferry to the Ramon. Until August, 1940, the Ramon was one of the attractions of the longest electric interurban passenger trip in the United States-between San Francisco and Chico. Today the Ramon and the Sacramento Northern serve an important role as a short line between Sacramento and Oakland for Western Pacific freight.

The Ramon commences her 10-minute run across the Suisun Bay with a freight gondola and the sole remaining passenger car MW-302 on May 15, 1948. She is shown leaving the west terminal of Mallard on the occasion of the yearly official inspection trip of S. N. Railway officials.

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over on a boat. This method has been used for a great many years by the Southern Pacific Railway at a similar point in connection with their transcontinental line.

In considering the construction of a suitable vessel, the engineers of the road had three main considerations to take into account. namely, reliability, economy, and time of delivery. Of course it might be said that the first two are the prime considerations for any marine installation, but they were of especial importance in the present case on account of the nature of the service for which the vessel is intended. Reliability was a vital point, as the schedules of the whole system would be upset by any interruption in the service of this boat, which, as stated above, was to operate at a point on the main line of the road. The relative

THE TRAIN SHEET

economy of steam and internal combustion engines in intermittent ser vice was carefully considered, with the result that the latter were adopted principally on account of the saving effected by this type of power between trips. It was also found that the use of distillate (paraffin) engines would reduce the size of the boat and the number of men necessary for its operation. The short time of delivery required for the complete installation was the consideration that influenced the design of the hull to a large extent, necessitating a departure from usual practice in order to expedite construction. The time factor also worked to the advantage of an oil engine equipment.

The hull of the Ramon is built entirely of steel, which was manufactured by a local rolling mill and erected by the railroad co. The total weight of the steel used amounts to 320 tons.

The principal dimensions of the Ramon are as follows: Length over all, 236 ft; breath 58 ft; maximum draft, $12\frac{1}{4}$ ft.

On account of the short time alloted for the construction of the vessel all curved plates were eliminated and a box-like design was adopted which allowed for the use of flat plates throughout. The hull is built about a central girder formed by two longitudinal bulkheads extending the entire length of the boat. In this way extreme

longitudinal stiffness and general rigidity have been obtained. The engine room is located between these two bulkheads, thus providing an exceptionally stiff engine bed necessitated by the length of the engine--i.e. 46 ft. The fore and aft limits of the engine room, which is 70 ft long by 13 ft wide by 16 ft deep, are determined by two transverse bulkheads extending the entire width of the vessel. These two additional bulkheads divide the hull into eleven watertight compartments, making it well nigh unsinkable. At either end of the engine room is located an intermediate deck, on which the auxiliary machinery is located.

It will be seen from the side elevation that there are two deck houses which form the base for the pilot's bridge. These houses will contain toilets, a lamp room and cabin.

The crew's quarters, galley and dining room, seating sixty people, are located below decks.

At either end of the boat there are two steel towers for carrying the trolley wires which make contact with the wires on the apron through switches controlled from the pilot house. The three tracks on deck will each be 220 ft. long, accommodating a total of twelve passenger coaches. The rails will be flush with a wooden deck which will be laid over the steel deck, thus insuring the safety of passengers promenading while the boat is in transit. The propeller and balanced rudder on either end will be protected by a skag constructed of two 10-inch ship channels with a 10-inch by 16-inch timber between them.

The propelling machinery of the Ramon possesses unusual interest, as it consists of the largest internal combustion motor of the electric ignition type ever built in any part of the world. This fact can be appreciated when it is stated that the completed engine will weigh approximately 100,000 lbs., its total length being 46 ft.

The engine is an eight-cylinder unit designed to develop 600 horsepower at a normal speed of 200 revolutions per minute. It is an "open crosshead type" engine, and its construction has been undertaken by the Union Gas Engine Co. of San Francisco. This type of distillate (paraffin) engine is perhaps one that will not be familiar to British engineers, as it has been developed solely on the Pacific Coast. The open crosshead in this case is slightly different in design from that which obtains in steam and large diesel installations, and consists of a water jacketed extension on the lower end of the cylinder which acts as a crosshead guide. The piston is exceptionally long, and the lower end, which holds the wrist pin, acts as a crosshead. There are openings fore and aft in both cylinder and piston, thus allowing a circulation

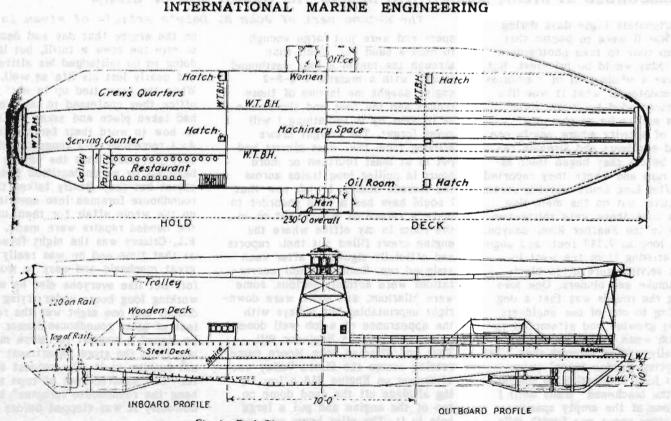


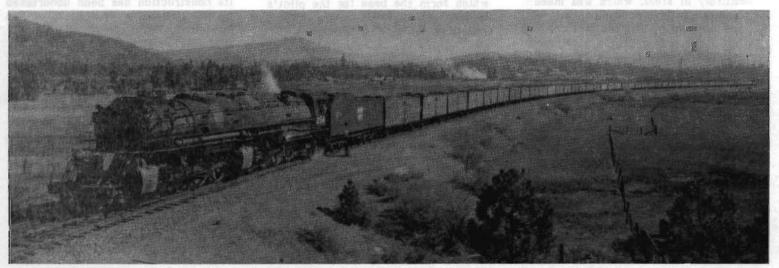
Fig. 4 .-- Deck Plan and Outside Profile of the Ramon

of air about the wrist pin. The inlet and exhaust valves are disposed on either side of the cylinder in the familiar " T" head arrangement; the exhaust valves are water cooled. It will be seen from the profile of the engine room arrangement that the cylinders are grouped in four pairs to correspond to the four sections of the crank shaft.

The fuel that is to be used is known on the Pacific Coast as "engine distillate" and corresponds closely to British "paraffin". The vaporizing device consists of two carburetors used in connection with two jacketed inlet manifolds of special construction, heated by the exhaust gases in order to prevent condensation of the heavy fuel. Each manifold supplies four cylinders. Lubrication of the cylinders and bearings will be accomplished by means of force feed lubricators mounted on the back of the engine and driven from the cam shaft. The crank-pin bearings are lubricated by a centrifugal ring oiling device mounted on each crank web and connecting with oil holes leading out to the center of the crank-pin.

The engine is placed in the center of the hull and is connected to a four-bladed propeller, 72 inches in diameter, on either end. The Ramon as stated above, is double-ended, and in order to eliminate the necessity of a reverse gear the two propellers are made of opposite pitch and are thrown in and out of action by a clutch mounted on each end of the engine. At one end of the engine room a 20 horsepower, twocylinder, distillate engine is belted to a generator for supplying current for lighting purposes about the ship and also to the coaches in transit.

This installation of 600 odd horsepower will require only one engineer in the engine room, which will be a considerable reduction in the number required for a steam plant of equal capacity. The greatest saving, however, will be shown in the elimination of all fuel expense while the vessel is tied up at the wharf, and it is this consideration that will undoubtedly lead to the further development of the internal combustion engine for ferryboat service, especially about San Francisco Bay, where this type of vessel is used to a large extent.



SURROUNDED BY STEAM LOCOMOTIVES DURING THE GRAND AGE OF STEAM

Unfortunately those days during World War II were so hectic that I had no time to take photographs which today would be priceless. But I do have a whole host of memories and aneodotes of what it was like to be surrounded by steam locomotives and to be at the very center of activity where nearly one hundred engineers and firemen reported before they began their assigned runs and where they reported back after long hours working steam locomotives out on the main line. At one time there were thirty-two tunnels in the Feather River canyon, one as long as 7,343 feet, and engine crews arriving from the west in freight service were often black from smoke and cinders. One joke making the rounds was that a dog belonging to one of our engineers actually growled and attempted to bite him when he arrived home. I personally walked through that 7,343 foot Spring Garden tunnel twice using a long broomstick to scrape along the blackened walls until I found one of the empty spaces which were about one fourth mile

The second part of John R. Daly's article of steam in Portola

apart and were just large enough to hold a hand car. Each time through the tunnel a long eastbound freight with a massive 2-8-8-2 engine caught me in one of those spaces and the roar and the smoke as it went by is something I will never forget. The freight crews arriving from the east almost had put in at least fourteen or more hours in pulling long trains across the Nevada desert. I wish now that I could have had a tape recorder to make a record of what went on in the room in my office where the engine crews filled out their reports and officially signed in after each assigned run. Some of their conversations were actually serious, some were hilarious, and some were downright unprintable, but always with the appearance of a job well done.

For example, as Engineer Bill Tout and Fireman John Moore came roaring across the Sierra Valley one afternoon on Engine 316 a low flying airplane hit the sand dome on top of the engine and put a large hole in it. The pilot knew who was

on the engine that day and decided to give the crew a thrill, but in doing so he misjudged his altitude and nearly lost his life as well. When the crew tied up in my office they confessed to me what had taken place and asked my advice on how to word their federal report. As I remember it I suggested that they just state that the engine had been hit by an unidentified flying object but they finally talked the roundhouse foreman into covering up the whole affair for them until the needed repairs were made. F.L. Crissey was the night foreman at that time and he was really a great mechanic and easy to work for. But like everyone else he was working long hours under trying conditions and one night was the recipient of some roundhouse humor when he signed a request for some materials from the store department without looking at it. The request asked for "one hundred feet of rope to hang the roundhouse foreman" but obviously it was stopped before it

SHEET SIX

ROSTER of EQUIPMENT at the PORTOLA RAILROAD MUSEUM, PORTOLA, CALIFORNIA as of February, 1987

LOCOMOT	IVES		REFRIGE	PATOP		80X		
FR&W	1	PLY ML-8	PFE	11454	Steel icer	TS	520	50' SD Steel
KCC	2	Alco RS-3	PFE	52138	Wood icer (WP/PFE)	WP	3032	50' SD Steel
KCC	3	Alco RS-3	FGEX	55932	Steel icer	WP	3417	40' SD Steel (0209)
FRSL	8	BLW 2-6-2	L OC'V	33932	SCEET ICEL	WP	3472	40' SD Steel (21513)
USS	12	GE 80 Ton	HOPPER			WP	3796	50' DD Steel
KCC	104	Alco RS-2	SN	5005	Covered (WP 11530)	WP	18503	40' DD Steel (0813)
WP	608	EMC NW-2	WP	10649	Ballast	WP	19507	40' SD Steel (0246)
WP	707	EMD GP-7	ωP	11509	Covered	WP	19801	50' SD Steel (0258)
WP	708	EMD GP-7	WF	11309	COVELED	WΡ	19901	50' DD Steel Transco
KMC	778	GE Elec	GONDOLA			WP	20094	40' SD Steel (0207)
UP	849	EMD GP-30	WP	6116	Wood side 40'	WP	20599	40' SD Steel (0212)
WP	921D	EMD F7-A	ωP	6550	Steel drop end 52'	WP	20772	40' SD Steel (0218)
ARR	1506	EMD F7-A	₩P	11012	Air dump	WP	20806	40' SD Steel (0220)
ARR	1507	EMD F7-B	WF	11012	AII Gamp	WP	20868	40' SD Steel (0247)
ARR	1508	EMD F7-A	FLAT			WP	21255	40' SD Steel (0239)
ARR	1510	EMD FP7-A	WPMW	0318	40'	WP	22009	40' SD Steel
ARR	1512	EMD FP7-A	WPMW	0319	40'	WP	22023	40' SD Steel (0242)
ARR	1517	EMD F7-B	WP	2328	50' (79-4)	WP	27198	40' SD Wood
WP	2001	EMD GP-20	WP	2350	50' (37-2)	WP	34005	50' DD Steel
WP	3051	GE U30-B	WPMW	8514	40'	WP	36011	50' SD Steel
UP	6946	EMD DDA-40X	WPMW	8522	40'	WP	37007	50' SPD Steel
			WPMW	8545	40' Comb Gon	WP	64004	50' DPD Steel
TENDER			WPTW	0040				
ARR	P-4	Power car	TANK			OUTFIT		新。参加的公司一位50年,1993年,1993年,1993
WP	481	GS-6 tender	WP	1072	10,000 gal (1577)	ODKX	2	USAR kitchen (FRSL)
			WP	1074	10,000 gal (1583)	WPMW	0912	Kitchen-diner
CABOOSE			WP	1132	10,000 gal	UP	905884	Bunk-car
WP	428	Steel bay window	201	1102	Note the second second	UP	907344	Bunk-car
WP	645	Wood bay window						
WP	779	Wood cupola (FRSL)				PASSENGER		
SP	1345	Steel bay window					105	Business
SN	1632	Wood cupola				ATSF	601	Diner
UP	25049							
UP	25283	Steel cupola					QUIPMENT	
	1.000					WPMW	E-14	Burro crane
						WPMW	90	Brownhoist crane
and the second second	And Street, Square, or other	all and the second second and the last fills	19.25	of a lot of the lot of the	General Manual and and a second strend	umbr	17 1172 D. at.	AND INT ROAD AND AND

SURROUNDED BY STEAM LOCOMOTIVES

reached the head office down in Sacramento.

Because business on the railroad had increased so rapidly due to the effects of World War II we had many very young fireman who were promoted to engineer after passing the required examinations. Obviously these young engineers continued as assigned firemen or went on the extra board but they never could be called for engineer on a passenger train until they had completed at least 30,000 miles of running an engine in freight service. We called a freight crew for a trip to Winnemucca one night in April of 1945 and as usual were short of available crews. This gave young Joseph Sonzogni his first opportunity to run an engine on his own and so at just 22 years of age he and a recently hired boomer fireman safely made the trip to Winnemucca on engine 327. Just at that time the Western Pacific was hauling a very special westbound passenger train with 18 cars filled with many of the crowned heads of Europe on

their way to San Francisco for the founding meeting of the United Nations. The WP left no stone unturned to make sure that everything was letter perfect and even had section men standing at the main switch points along the 928 mile route to eliminate any possibility of sabotage. But when the train approached Winnemucca the dispatcher suddenly realized with horror that there was not one engine crew in Winnemucca with enough time left to get the train to Portola under the 16 hour Federal Law. Not one crew, that is, except young Joseph Sonzogni and his boomer fireman and neither of these men had qualified as yet to to operate an engine in passenger service, let alone one of the big 4-8-4 passenger locomotives. So with a road foreman of engines on board young Joe on engine 483 brought all of the European brass over 211 miles of mountains and deserts. We all held our breath while none of the passengers and secret service personnel on board the train knew what was going on in the cab of the 483.

And then there was the classic case of railroad efficiency. On Dec. 19, 1946, there was a bad derailment in Oroville involving engine 172 and the Portola wrecking crew of 40 men was called for a special wrecking train. I was there when the train pulled out westbound down the canyon late on a wintry afternoon. Although 40 men left Portola there were only 39 men in the crew when the train arrived in Oroville. They soon discovered that a Portola carman named Rice was missing and and the following morning a WP track walker found his body between the rails near Keddie in the Feather River canyon where he had fallen in attempting to pass from one work car to another. Being the curious type 1 watched to see how the timekeeper in Sacramento would show his timecard on that last shift of his life. Sure enough, the timecard came back showing Rice off the payroll at exactly 7PM which was the time the train passed the exact spot near Keddie where he had departed this world. The time keeper, of course, was right because it was obvious that the deceased did not do any work for

the railroad after seven o'clock!

It was always a thrill for me to call one of the young recently promoted engineers for his first trip on his own, particularly for his very first passenger run. I remember calling young Tom Rutherford for such a trip and can still see him heading east out of Portola on the big 4-8-4 Lima built 486 with train #40 in tow with sixteen heavyweight coaches and pullman sleeping cars. Some of these young engineers had very harrowing experiences too, for example young Orville Dack sent to work on the extra board down in Oakland. He later told me that his first trip was as engineer on a helper engine east to Altamont Pass and when he cut off and turned on the wye a dense fog rolled in and he suddenly found out that his fireman was brand

new and didn't know where he was either. His account of his return trip back to Oakland would give anyone gray hair.

One night in 1946 Engineer Dick Bacon was called west from Portola on engine 484 on a passenger special with an old boomer fireman named Bernie Newport, Dick knew that his fireman already had the reputation of being somewhat slow and appeared to have poor eyesight so before Dick would leave the roundhouse he had me type up a statement that he would not be responsible for anything that happened on the left side of the engine. I was to hold the signed statement until I knew that the train had arrived safely in Oroville and then destroy it which I did the following day. Then there was the case of Engineer Jess Jacobs who for some reason was

terrified of working out on the main line. He worked constantly as engineer on switch engines in the Portola vard and whenever it appeared that because of the shortage of promoted men he might be called for mainline service he would immediately lay off. But one night before he was aware of what was happening I had to call him as engineer on a Gerlach helper. This meant that he had to run a light engine east for 117 miles and then couple onto a big freight engine for the return trip to Portola, Obviously he made it but was a nervous wreck and I learned that he passed away about two years later while still a comparatively young man. I have always wondered if that trip had something to do with his untimely passing.

Next Part Next issue.....

WESTERN PACIFIC'S SKELETON LOGGING FLATS & HUTCHINSON LUMBER COMPANY

In the mid-1920's Western Pacific rostered a fleet of 200 skeleton logging flats numbered 2601-2800. Their M.C.B. (Master Car Builder) designation was FL, class logging, wood underframe. Outside length of the cars was 43 feet, 2 inches, with a capacity of 80,000 lbs. These cars were part of a fleet of logging cars in service out of Oroville for one customer--the Hutchinson Lumber Company.

The name Hutchinson Lumber Co. is not familiar to many fans today but a railroad owned by the successor company is much better known despite being abandoned now for nearly two decades. The successor lumber company was Feather River Pine Mills, Inc., owner of the wellknown Feather River Railway.

Hutchinson Lumber Company was a West Virginia lumber firm that entered the West Coast lumber business in 1920 with the purchase of a timber tract northeast of Oroville. By Kent Stephens

Hutchinson's 21 mile logging railroad was built during 1921-22 from a connection with the Western Pacific 12 miles east of Oroville at the Bidwell Bar into their timber holdings above the present town of Feather Falls. At the same time the company built a large sawmill south of Oroville near the WP yard.

The logging railroad cost over \$1 million to build. Several miles above Bidwell Bar the line crossed the South Fork of the Feather River on a timber trestle in a beautiful canyon setting. Less than a mile above the trestle was the beginning of a stiff $5\frac{1}{2}$ % compensated grade that continued for six miles to Onyett. Hutchinson bought three new Shays in 1921-23. All were three truck; No. 1 was a 70 ton saturated engine, Nos. 2 and 3 were 90 ton and superheated. One Willamette was also on the roster, 70 ton three-truck No. 5, which arrived in 1923. A secondhand 0-6-0T, No. 4, was the mill switcher at Oroville.

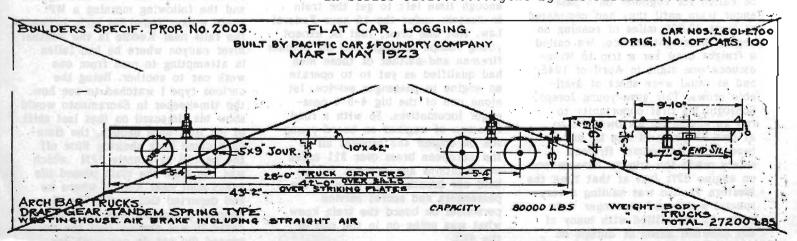
The mill and logging operations started in May 1922. By 1924 Hutchinson was in full production, cutting 90,000,000 board feet of lumber during the year. This production required a supply of 300 log cars to transport the logs to

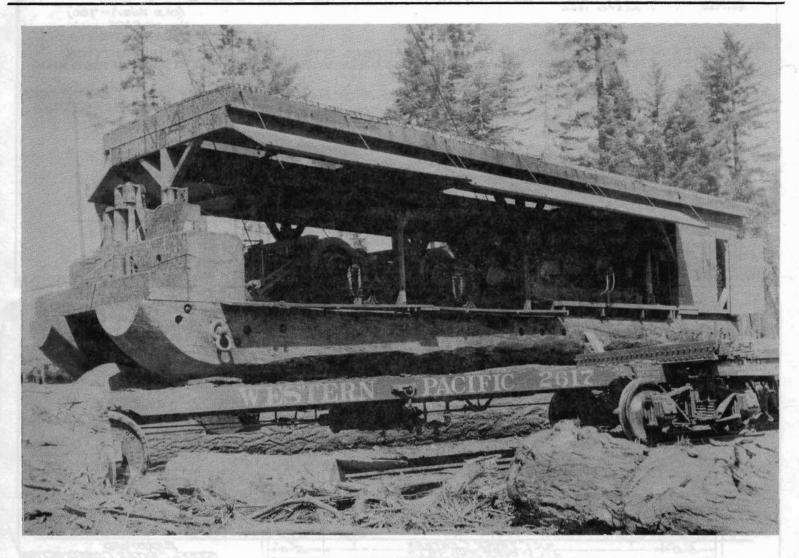
WESTERN PACIFIC LOGGING CARS.....

2601-2700...Blt 1923 2701-2800...Blt 1924 3101-3200...Conv. 1941

3101-3200...Conv. 1941 from Org 1-700 Flats Blt 1906

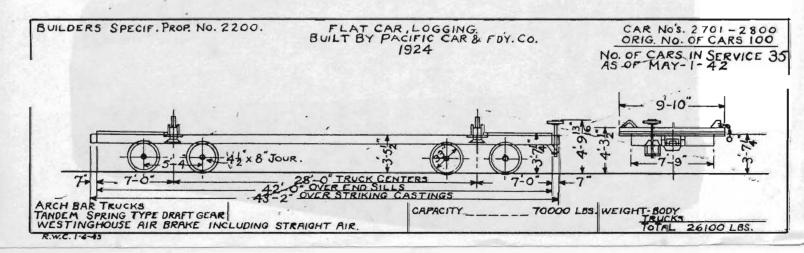
In July 1947 35 in series 2701 in service and 70 in series 3101......gone by the Fifties.....





Western Pacific skeleton log car #2617 near a log landing on Hutchinson Lumber Company's logging railroad in the early 1920's. Behind is Hutchinson Lumber Co. #4, a Willamette electric logging donkey. American Lumberman photo, Kent Stephens collection

the sawmill. According to several former employees the ownership of this car supply was apparently divided between WP and Hutchinson. The lumber industry journal, THE TIMBERMAN, mentions the cars in several articles on Hutchinson between 1922 and 1924. In 1922 it was stated that, "... standard Western Pacific flat cars (are) being used for the transportation of the logs. These cars are all equipped with both straight and automatic air and the latest improved type of logging bunks." An article a year later specified that it was "... Western Pacific flats and 100 skeleton Pacific Car \$ Foundry Co. cars" all equipped with both straight and automatic air. The lumber company's portion of the fleet may have been the 100 PC&F skeletons, Hutchinson's cars MAY have been lettered for Western Pacific due to usage on the WP. (to be continued next issue)



CARS 1-100 BUILT BY DARG 1906 101-200 - DARG 1906 201-700 - AC&FC0. 1906 FLAT CAR CAR Nos 3/851-32262 104 14 12 (OLD No'S. 1-700) No, OF CARS 16 * NOTE- CARS IN THIS SERIES WHICH HAVE BRADFORD STEEL CENTER CONSTRUCTION AND THREE SPRING DRAFT GEAR AS APPLIED BY W.P.R.R. DURING 1923 TO 1930 INCL. HAVE AN AVG. WT. 30300 LBS. FLAT CARS IN SERVES 1851-2262. 72 CARS HAVE ORIG. ARCH. BAR TRUCKSAND ARE BEING RENUMBERED NUMBER OF CARS SHOWN IN SERIES 31851-32262. OVER COUPLERS 912" EVER DELK 1 THE END SILL + 9. Jour 9:0 .3 OVER END SILLS 42-1- OVER STRIKING PLATES they all and the ARCH:BAR TRUCKS Tox WEIGHT - BODY TRUCKS CAPACITY 80000 LBS MINER TANDEN & REPUBLIC DRAFT GEAR. · . . CAR NOS. 3101 - 3200 NO. OF CARS 100 FLAT CAR, LOGGING NOTE. 100 FLAT CARS TAKEN FROM SERIES 1701-1850, 1851-2262, 31851-32262 HAD LOGGING BUNKS APPLIED AND RENUMBERED IN 1941. 9-10 BUNK 28-1"GENTER TO CENTER BUNKS OYER SIDE SILLS OVER END SILLS -6 5×9"Jour. STEEL CENTER CONSTRUCTION ENTERS -5 -0 RIKING PLATES CAPACITY___BOOOD LBS WEIGHT BODY ICK SIDE FRAME IREE SPRING DRAFT GEAR E AIR BRAKE TOTAL 320001 7.5.49 UNITED STATES 32 ALASKA P.4