Class 14 34/50 DD Gauge of Road 4'8½" Section J-14DD Sketch 6482

Original Inquiry for OCEAN SHORE R.R. Date APRIL 13-1916

20"x28"x210x1.2 / 51. = 55100 x 4.4 = 244000

Wt. on Drivers, about 244000 lb.

Total Wt. in Working Order, about 268000 lb.

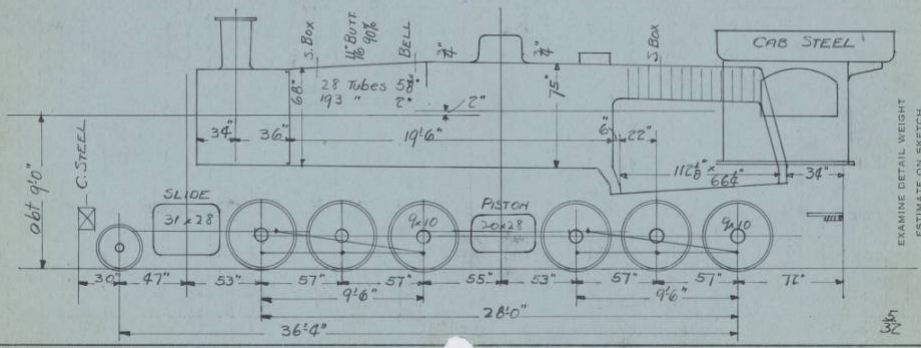
Wanted 2-6-6-0 MALLET-WEIGHT NOT TO EXCEED 244000 LBS. ON DRIVERS.

FUEL OIL-SEE B-36 D-6.

Based on 16 34/50 4 DD-dl. FRAMES 4½" WIDE; 45" CEN. DEPTHS TOP 4½" BOT 3" OVER FED 5½" WATER SPACE F.S. 5&8¾"-MUD RING DOUBLE RIVETED-ENG TRK. WHEELS 30" DIA. JOUR 6"x12"-WALSCHAERT VALVE MOTION-POWER REVERSE.

HEATING SURFACE

Firebox, about	205 Sq. Ft	Ratio G. A. to H. S. - 1 to 57	
5 3/8" 2" Tubes, "	1962	" " Superheater 650 Sq. Ft.	
Total, "	2911	" "	
Grate Area	51.5	" "	



ESTIMATE ON SKETCH WEIGHT

Illustrated by Trac. 31479 Copy Spec. C-3754.

Engine Drawing

WEIGHT ESTIMATE

By J.H. HICE Date APRIL 13-1916

ITEM	TRUCK	DRIVERS	TRAILERS	TOTAL
16 34/50 DD 6a dl	21000	256200	22100	299300
STROKE -2"				- 6000
GRINDERS & SADDLE				
LIGHTEN DESIGN				- 3000
DRIVERS 51" DIA.	LIGHT CAST STEEL CEN.			
INSTEAD 55" "				- 2800
DRIV. JOURNAL	9x10			
INSTEAD	9½x12			- 3500
SINK BOX 60" DIA x 48"				
INSTEAD 73" " x 75"				- 1800
ADD SUPERHEATER				
28 ELEMENTS				+ 6700
BOILER WASTE WT 68 & 75" dia x 19'6" long	72" " x 21' "			- 8500
FIRE BOX R.S.	112⅝ x 66¾			
INSTEAD BEL	116⅝ x 66¾			- 7000
FRAMES 4½" WIDE				
INSTEAD 5" & SHORTER.				- 1800
GRATE AREA	51.5			
INSTEAD	53.4			- 200
SINGLE JOINT HINGE				
INSTEAD Double				- 1000
F. BUMPER STEEL				
INSTEAD WOOD				+ 1200
OMIT BACK TRUCK				
ETC.				- 7000
OMIT SLOPING FURNACE BEARERS				
& USE EXPANSION PLATES				- 1200
MISCELLANEOUS DETAILS				
LIGHTER				- 3000
RESULT				266800
SAY ABOUT	24000	244000		268000

Cylinder Volume = 10-2 Cu. Ft.
Ratio C. V. to H. S. = 1 to 288
" " " Eq. H. S. = 1 to 387
" " " G. A. = 1 to 5.05

36

Class 18 $\frac{40}{64}$ EE Gauge of Road 4'-8½" Section J-18EE Copy Sketch 6443

Original Inquiry for OCEAN SHORE R.R. Date APRIL 15-1916

$\frac{23^2 \times 28 \times 210 \times 1.2}{51} = 73200 \times 4.44 = 325000$

Wanted 2-8-8-0 MALLET WEIGHT NOT TO EXCEED 325000# ON DRIVERS.

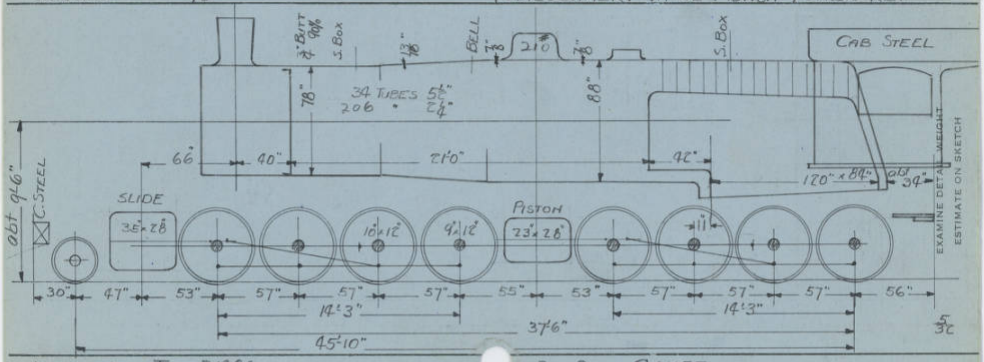
Wt. on Drivers, about 325000 lb.

Total Wt. in Working Order, about 349000 lb.

FUEL- OIL

HEATING SURFACE			
Comb. Chamber	72		
Firebox, about	184 Sq. Ft	Ratio G. A. to H. S. - 1 to 55	
5½" Tubes, "	1025 " "	Superheater 850 Sq. Ft.	
Total, "	2540 " "		
Grate Area	70 " "		

Based on 16 $\frac{40}{64}$ ¼ DD-dc FRAMES 5" WIDE, 43" CEN. DEPTH TOP 4½" BOT 3" OVER PED 5½" - WATER SPACE F5" S & B4" - MUD RING DOUBLE RIVETED - ENG. TRK. WHEELS 30" DIA. JOURN. 6x12 WALSCHAERT VALVE MOTION - POWER REV.



Illustrated by Troc. 31486 Copy Spec. C-3755

Engine Drawing

WEIGHT ESTIMATE

By J.H.H. Date APRIL 15-'16

ITEM	TRUCK	DRIVERS	TRAILERS	TOTAL
16 $\frac{40}{64}$ ¼ DD dc	20500	299250	22900	342650
STROKE - 4"				- 1000
WORKING PRESS. 210				
INSTEAD 200				+ 300
DIAM. DRIV. WHEELS 51" LIGHT C. STEEL CENTER				
INSTEAD 57"				- 4500
ADD 2 PAIR DRIVERS,				
PEDESTALS, BOXES ETC				+ 2400
DRIV. JOURNAL 9 & 10 x 12				
INSTEAD 10 x 12				- 1700
SINK BOX 79" DIA x 62" LONG				
INSTEAD 85" " x 92" "				- 1500
ADD SHMIDT SUPERHEATER				
BOILER WASTE-W.T. 78 & 88" DIA. x 21" LONG				+ 9000
INSTEAD R.S. 84" " x 21" "				- 11000
ADD COMBUSTION CHAMBER 42" LONG x 88" DIA				+ 8000
FIRE BOX 120 x 84				
INSTEAD 117 x 96				- 2200
GRATE AREA 70				
INSTEAD 78				- 800
FRAMES SHORTER & LESS DEPTH				
OMIT BACK TRK ETC.				- 2000
OMIT SLIDING FURNACE BEARER AT FRONT & USE EXPANSION PLATE				- 7000
SINGLE JOINT - HINGE INSTEAD DOUBLE				- 600
MISCELLANEOUS DETAILS - LIGHTER				- 1000
FUEL OIL				- 2000
INSTEAD COAL				- 2000
RESULT TOTAL				348330
SAY ABOUT	24000	325000		349000

Cylinder Volume = 13.44 Cu. Ft.
Ratio C. V. to H. S. = 1 to 285
" " " Eq. H. S. = 1 to 382
" " " G. A. = 1 to 5.2