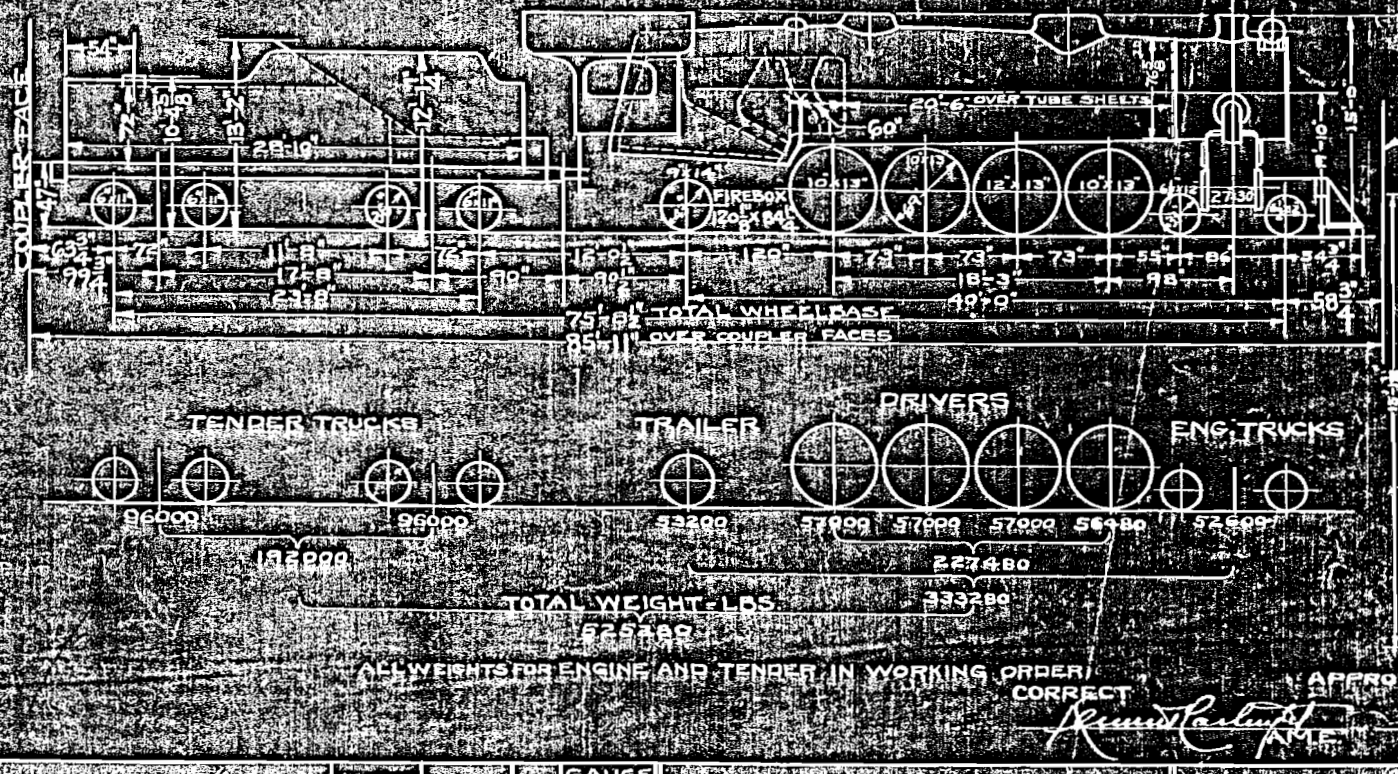
TENDER W-10-B | ENG. NO. 3307 | CLASS R-1 LOCO
FEEDWATER HEATER | DIAGRAM
SK. NO. 5640




ALL WEIGHTS FOR ENGINE AND TENDER IN WORKING ORDER

CORRECT

APPROVED

| ITEM | BOILER | HEATING SURFACE | LENGTH | DIA | GAUGE OR THICK. |
|---|---|---|---|---|---|
| 1 | BOILER TUBES-216 SPACING | 2597 | 20'-6" | 2¼" | 12 min |
| 2 | BOILER FLUES-40 SPACING | 1176 | 20'-6" | 5½" | 10 min |
| 3 | TOTAL TUBES & FLUES | 3773 | | | |
| 4 | FIREBOX PROPER | 214 | | | |
| 5 | COMBUSTION CHAMBER | 106 | | | |
| 6 | SYPHONS-2 FIREBOX-1 COMB. CHAMBER | 95 | | | |
| 7 | TOTAL FIREBOX | 415 | | | |
| 8 | TOTAL BOILER & FIREBOX | 4188 | | | |
| 9 | SUPERHEATER TUBES | 1009 | | | |
| 10 | TUBE SHEETS-FT. 9/16 BK. | | | | |
| 11 | GRATE AREA | 70.3 | | | Sq. Ft. |
| 12 | WEIGHT WATER 2 GAUGES | | | | |
| 13 | | | | | |
| 14 | | | | | |

| DESIGN DATA | |
|---|---|
| CALCULATED EVAPORATION LBS/HR. | |
| TUBES @ 8.52 LBS. | 22130 LBS |
| FLUES @ 9.84 LBS. | 11600 LBS |
| 3 SYPHONS @ 55 LBS. | 5225 LBS |
| COMBUSTION CHAMBER @ 55 LBS. | 5830 LBS |
| FIREBOX @ 55 LBS. | 11770 LBS |
| TOTAL EVAPORATION | 56555 LBS |
| STEAM CONSUMPTION (2624 X 29.8) | 78180 LBS |
| BOILER FACTOR | 104% |
| FIREBOX H.S. TO GRATE AREA | 5.90 |
| TOTAL H.S. TO FIREBOX H.S. | 10.09 |
| TOTAL H.S. TO SUPERHEATER H.S. | 4.16 |
| | 108% |
| | |

| GENERAL DATA | |
|---|---|
| BOILER PRESSURE | 200 LBS |
| TRACTIVE EFFORT | 58300 LBS |
| FACTOR OF ADHESION | 4 |
| MAX. CURVATURE | 16° |
| ENGINE TRUCK SWING | |
| TRAILING TRUCK SWING | |
| COAL CAPACITY | 16 TONS |
| WATER CAPACITY | 16000 GAL |
| VALVE GEAR | BAKER |
| STOKER | LTH CONVERSION |
| FEEDWATER HEATER | |
| THROTTLE-CHAMBERED POPPET TYPE | MUDLOCK |
| MAX. CUTOFF | 85% |

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