



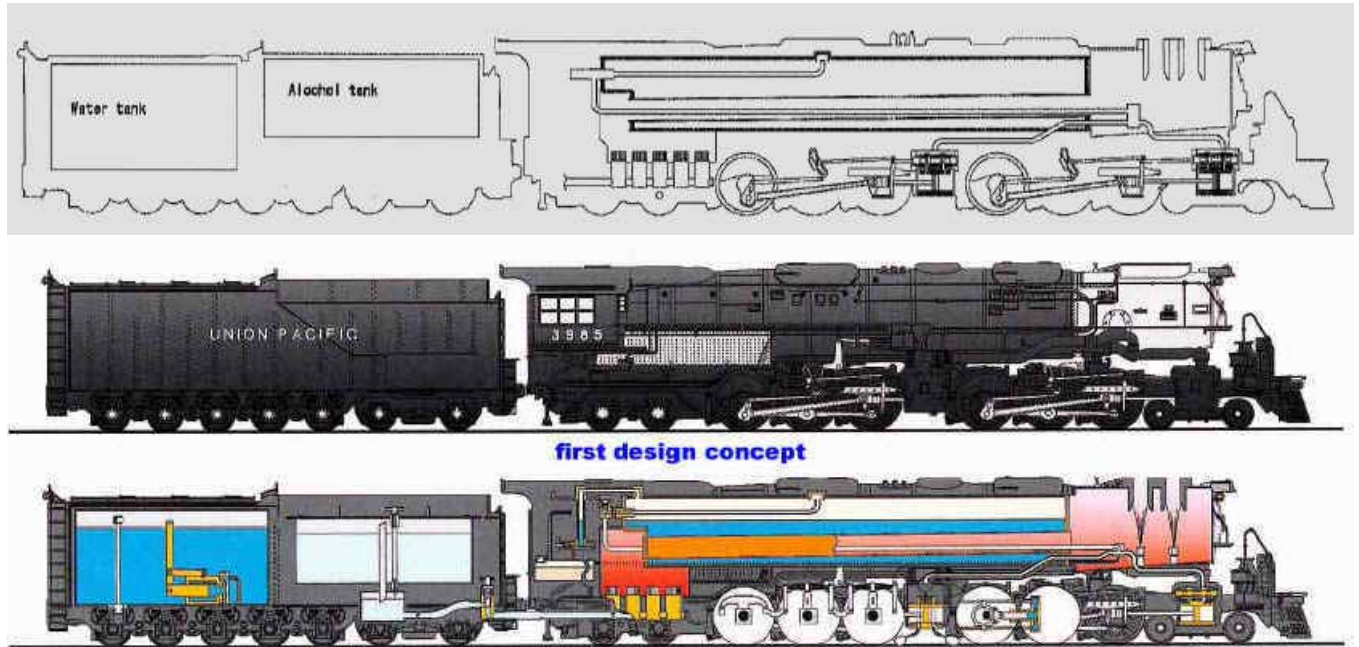
ORDERS CLOSE
END AUG 2011.
ONLY ORDERS
BEING PRODUCED.

**Argyle Loco Works
Union Pacific Challenger
Product Booklet**

BACKGROUND ON THE CHALLENGER PROJECT

The locomotive will be modelled in 1/32 scale Gauge One and will feature a alcohol fired C-type boiler, working cylinder drain cocks on all four cylinders, battery powered headlight, and all the necessary appliances featured on the latest Aster locomotive models.

The standard Aster design will be Union Pacific Challenger # 3985 in black, as preserved today in Cheyenne WY. The grey UP Passenger (or Greyhound version) will also be produced, modelled after locomotive # 3977 as preserved on static display in North Platte NE.



MILESTONE DATES FOR THE ASTER CHALLENGERPROJECT

10/2/2010 UP Challenger project announced and survey started.

6/4/2010 UP Challenger survey ended. The Challenger survey has concluded. We are happy to announce that because of sufficient reservation commitments the project is receiving a green light. Negotiations with Union Pacific Railroad in Omaha NE are in progress to obtain the trademark licensing permit required for model manufacturers.

13/4/2010 Union Pacific Railroad Company grants Limited Production and Trademark Certificate to Aster Hobby. Nothing in the way now to go forward with the project.

20/1/2011 Pilot model design concept and development started.

20/4/2011 Pilot model design phase nears completion.

25/5/2011 Design complete. First components starting to be manufactured.

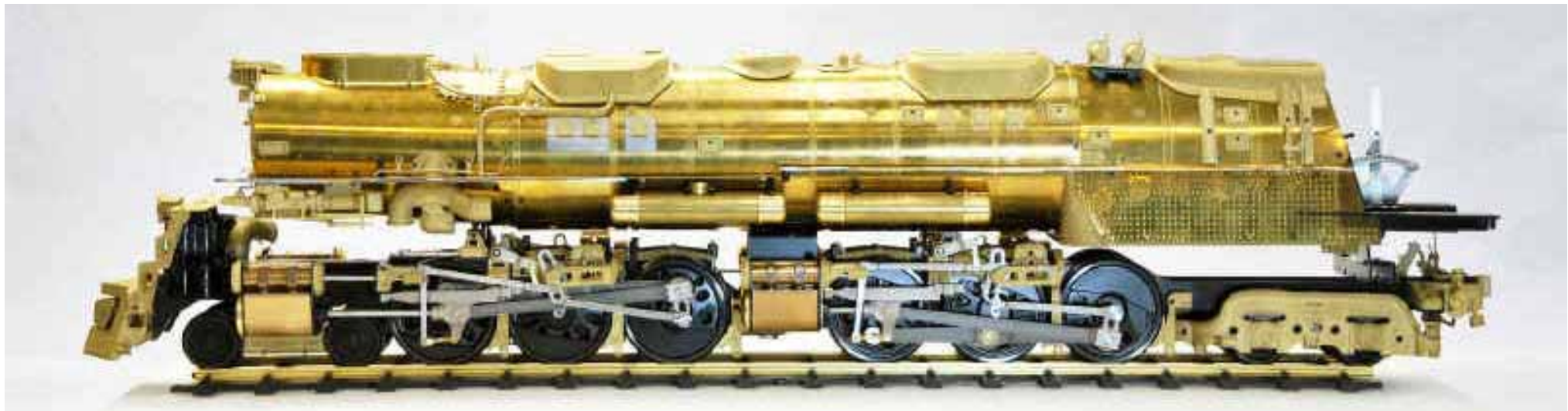
UP CHALLENGER

Aster Hobby Co.

Model Year	2008
Kit Type	Self-Start
Number of Components	2000
Estimated Price	\$120.00
Kit Size	1/2 1/2
Weight	10 lbs
Length	40 inches
Width	10 inches
Height	10 inches
Total Box Weight	100 lbs

Pilot Construction





MODEL SPECIFICATIONS— UP CHALLENGER #3985

Scale/Gauge: 1/32 Gauge one (45mm)

Length: 1140mm

Width: 105mm

Height: 154mm

Wheel Arrangement: 4-6-6-4

Driving Wheel: 52.5mm

Pilot & Trailer Truck Wheel: 27mm

Tender Truck Wheel: 32mm

Axle Driven Pump: Fitted

Cylinder: Bore 15mm x Ram Stroke 24mm

Valve Gear: Walschaert's

Boiler Type: C type

Water Capacity: 750ml/80%

Boiler Fittings: Regulator & blower valves, superheater, gauge glass, pressure gauge, whistle valve, water level gauge, blow down valve.

Lubricator: Roscoe displacement type

Tender: Hand operation pump (BORE 11mm x Stroke 12mm)

Water Tank Capacity: 1000ml

Fuel: Methyl alcohol

Fuel Capacity: 450ml

Minimum Radius: 2.0m

Models Available

Challenger Black #3985—Kit

Challenger Black #3985—RTR

Challenger Grey #3977—Kit

Challenger Grey #3977—RTR

Orders close end of August 2011. Aster Hobby Co have advised they will only produce models that have been ordered. None will be manufactured for stock.



HISTORY OF THE UP CHALLENGER

Union Pacific 3985

is a four-cylinder simple articulated 4-6-6-4 Challenger-type steam locomotive owned by Union Pacific Railroad. The UP 3985 locomotive was built in 1943 by the American Locomotive Company of Schenectady, New York. It is currently the largest operational steam locomotive in the world.

Design

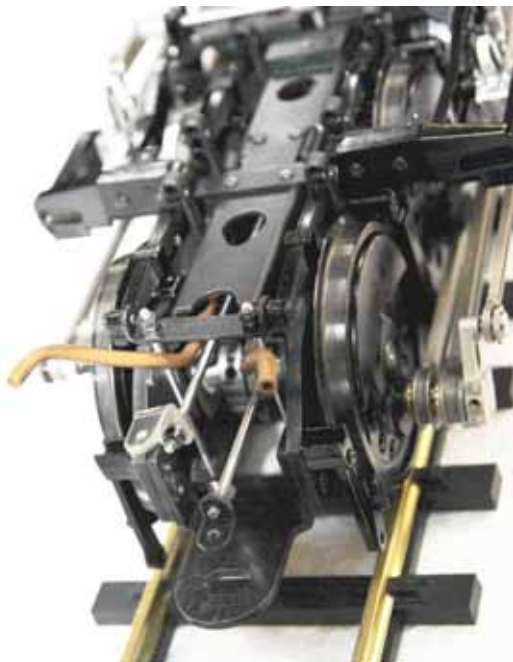
Designed by UP chief mechanical engineer Otto Jabelmann in 1941, UP 3985 was part of the second order of this second version of the Challenger. The design drew on recent experience with the enormous 4-8-8-4 Big Boy locomotives, and resulted in a locomotive in working order weighing some 317 short tons accompanied by a tender weighing 174 short tons when 2/3 loaded. Calculated tractive effort is 97,350 lbf. The Challenger class was intended to speed up freight operations on the 0.82% grades across Wyoming; the 1.14% Wasatch climb east from Ogden was to be conquered by the Big Boys without helpers. The Challengers and Big Boys arrived on the scene just as traffic was surging in preparation for American participation in World War II.



Locomotive 3985 Challenger de l'Union Pacific en tête d'un convoi de marchandises

Service and Restoration

UP 3985 operated in its last "regular" train service in 1957. The locomotive was retired about 1962 and after many years of storage in a roundhouse at Cheyenne, Wyoming, UP 3985 was placed on an outdoor display beside the Cheyenne depot in 1975. Beginning in 1979 a group of Union Pacific employee-volunteers started work on restoring the locomotive, and it was returned to operational condition in 1981. Originally a coal-burner, to prevent line side grass fires it was successfully converted to oil firing in 1990. Stationed at Cheyenne with other equipment in the UP's heritage collection, it is currently used for excursion trains and occasionally mainline freight on ferry moves. It was in the maintenance shop at Cheyenne in 2007 and underwent necessary repairs for service in 2008. It is now back up and running. It is one of only two of the original 105 Union Pacific "Challenger" types in existence, the other being UP 3977 on static display in North Platte, Nebraska.



IMAGES AND TEXT SOURCES

- Page 1. Aster Hobby Co, Japan (image)
- Page 2. Aster Hobby USA LLC (text and images)
- Page 3. Aster Hobby USA LLC (pilot images)
- Page 4. Aster Hobby USA LLC (pilot images)
- Page 5. Aster Hobby Co, Japan (text)
- Page 6. eng.wikipedia.org/wiki/Union_Pacific_3985 (text)
commons.wikimedia.org/wiki/ (image)
- Page 7. Aster Hobby Co, Japan and Aster Hobby USA LLC (Challenger images)
- Page 8. Aster Hobby Co, Japan—Pilot model*
- Page 9. Aster Hobby Co, Japan—Pilot model*

* Pilot model photographs taken 9th August 2011- Minor technical changes may be introduced for the production model.





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