Atchison, Topeka and Santa Fe steam engine diagrams and blueprints

Section 4, Pages 91 - 120

This folder contains steam locomotive blueprints, showing classifications and specifications for Atchison, Topeka and Santa Fe Railway Company engines. There is an index at the front.

Creator: Atchison, Topeka and Santa Fe Railway Company

Date: 1880-1956

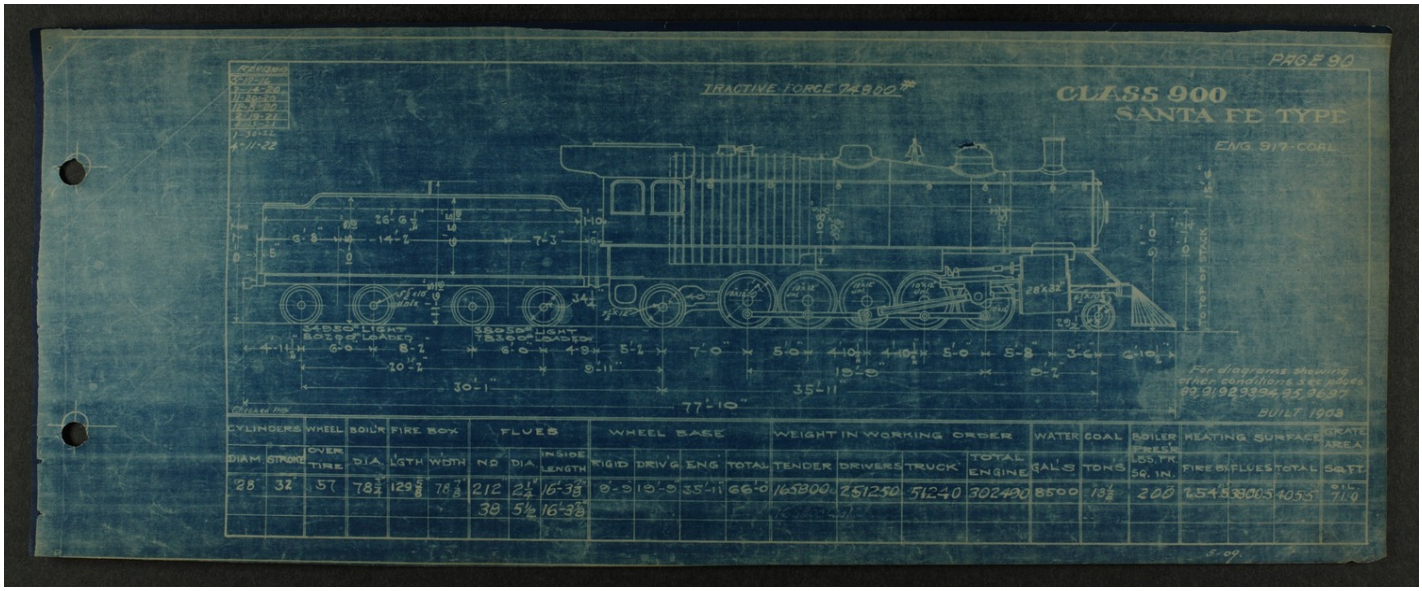
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KSHS Identifier: DaRT ID: 221763

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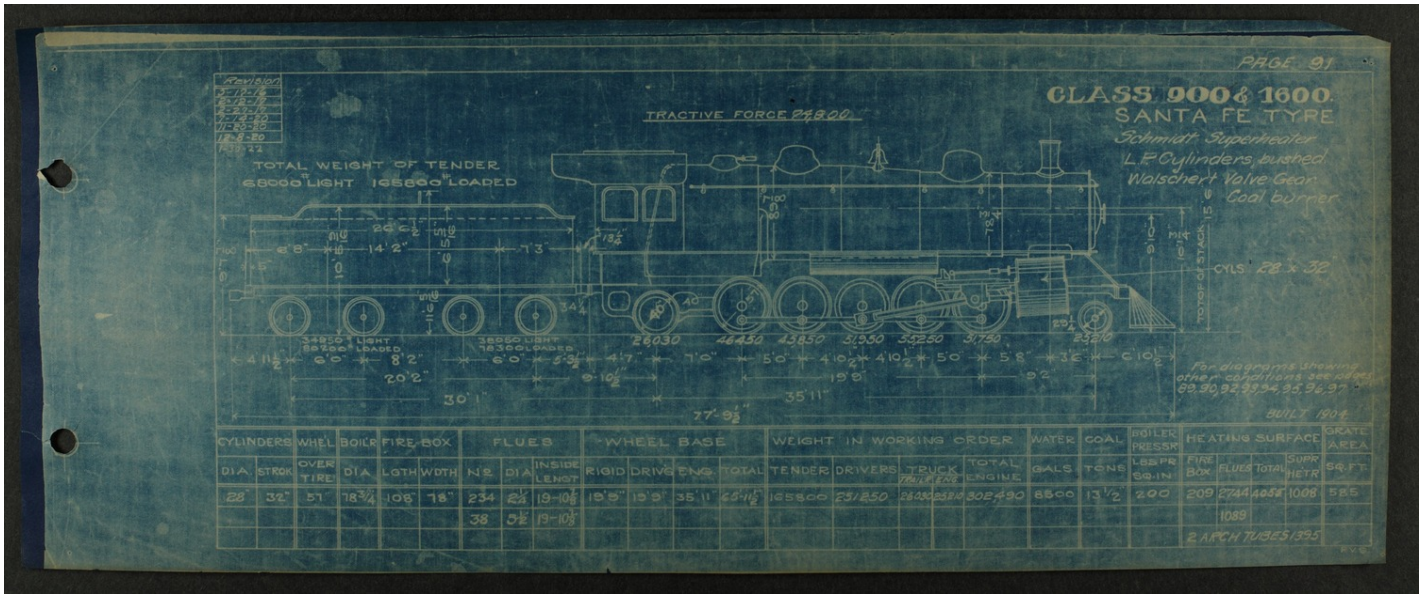
www.kansasmemory.org/item/221763

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



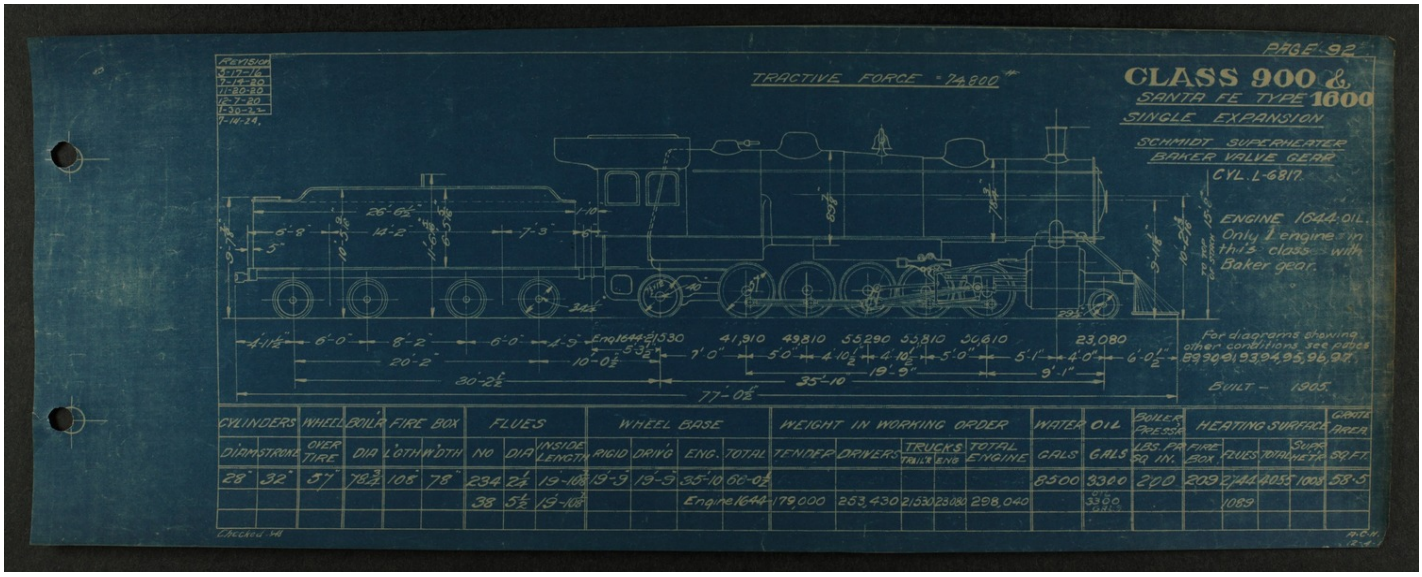
CYLINDERS		WHEEL	BOILER	FIRE BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER				WATER	COAL	BOILER PRESS. LBS. PR SQ. IN.	HEATING SURFACE			GRATE AREA
DIAM.	STROKE	OVER TIRE	DIA.	LGTH	WIDTH	NO	DIA.	INSIDE LENGTH	RIGID	DRIVG	ENG	TOTAL	TENDER	DRIVERS	TRUCK	TOTAL ENGINE	GALS	TONS		FIRE BX	FLUES	TOTAL	SQ.FT.
28	32	57	78 3/4	129 5/8	78 1/8	212	2 1/4	16'-3 3/8	9'-5	13'-9	35'-11	66'-0	165800	251250	51240	302490	8500	18 1/2	200	254	3800	4055	71.9
						38	5 1/2	16'-3 3/8															

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



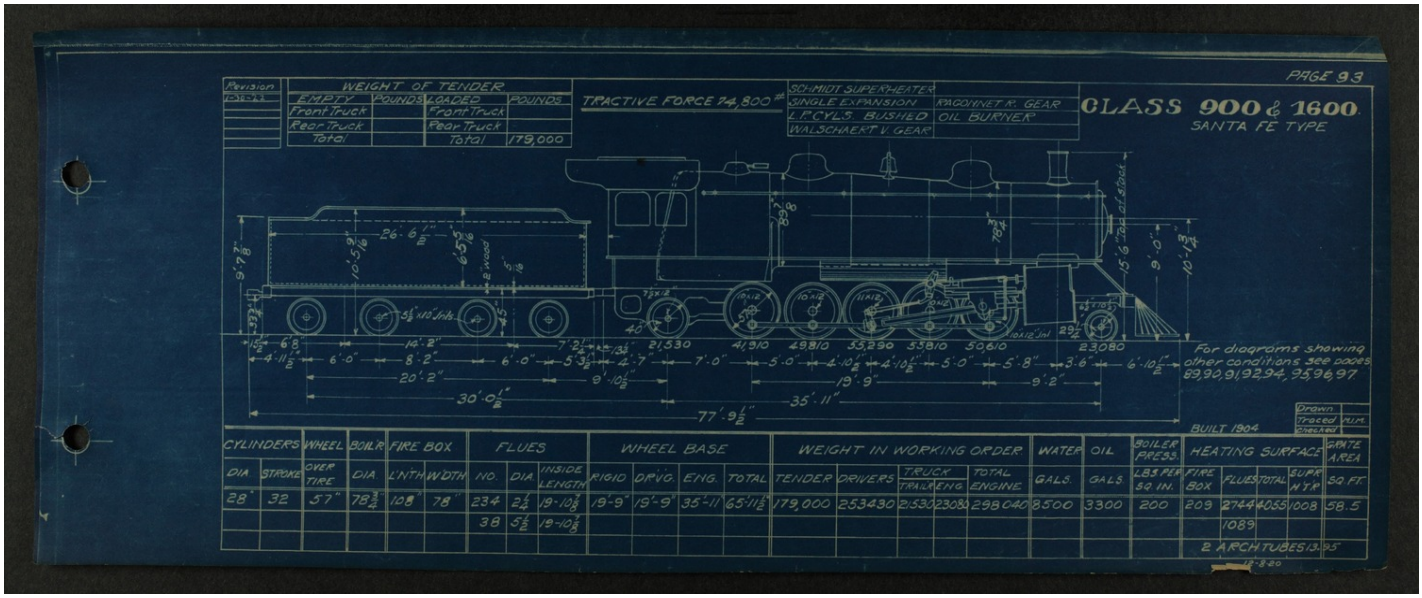
CYLINDERS		WHEEL	BOILER	FIRE-BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER				WATER	COAL	BOILER PRESSR	HEATING SURFACE				GRATE AREA
DIA	STROK	OVER TIRE	DIA	LGTH	WDTH	NO	DIA	INSIDE LENGT	RIGID	DRIVE	ENG	TOTAL	TENDER	DRIVERS	TRUCK TRAIL	TOTAL ENGINE	GALS	TONS	LBS PR SQ IN	FIRE BOX	FLUES	Total	SUPR HETR	SQ FT
28	32"	57	78¾	108"	78"	234	2¼	19-10⅝	15'5"	15'9"	35'11"	63-11½	165800	251850	28480	280330	8500	13½	200	209	2744	4058	1008	585
						38	5½	19-10⅝												1089				

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



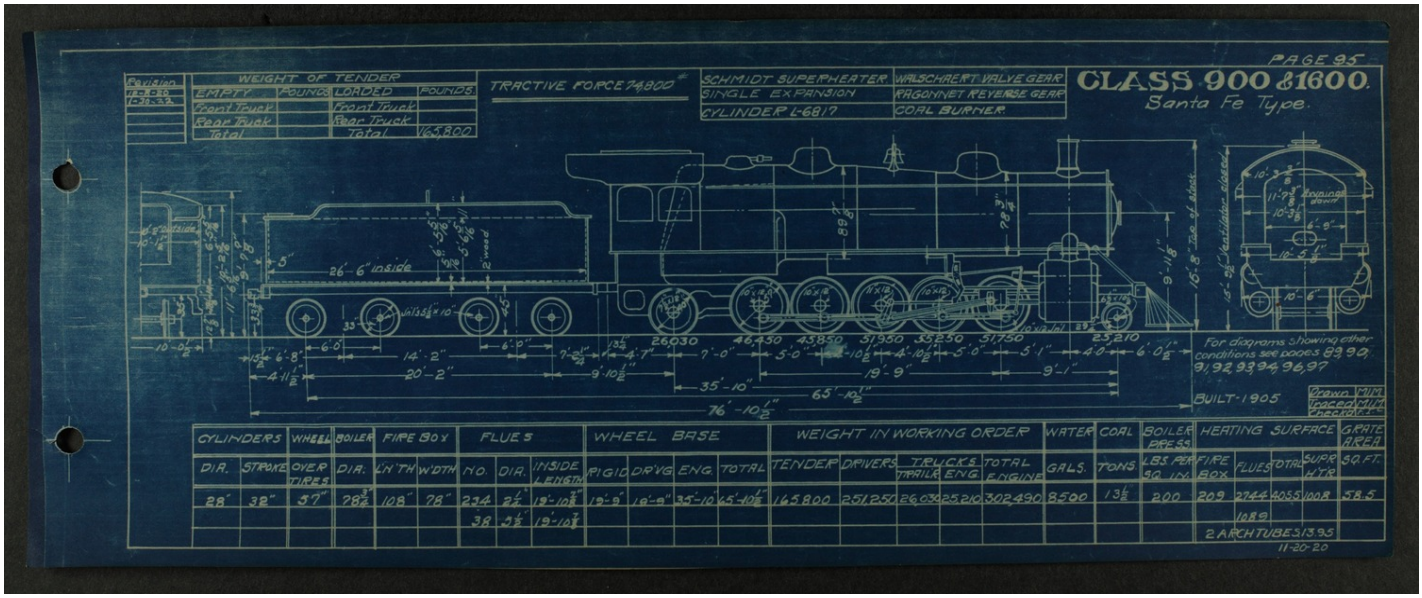
CYLINDERS		WHEEL	BOILER	FIRE BOX		FLUES			WHEEL BASE			WEIGHT IN WORKING ORDER				WATER	OIL	BOILER PRESS	HEATING SURFACE				GRATE AREA
DIAM	STROKE	OVER TIRE	DIA	LGTH	WIDTH	NO	DIA	INSIDE LENGTH	RIGID	DRIVG	ENG. TOTAL	TENDER	DRIVERS	TRUCKS TRAIL	TRUCKS ENG	TOTAL ENGINE	GALS	GALS	LBS PR SQ IN.	FIRE BOX	FLUES	TOTAL	SUPER HEATER	
28"	32"	57"	78½	105"	78"	234	2¼	19-10⅜	19-9	19-9	35-10	60-0½					8500	9300	200	209	2144	4055	1003	58.5
						38	5½	19-10⅜			Engine 1644		179,000	253,430	21,530	23,080	298,040		3300 gals		1069			

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



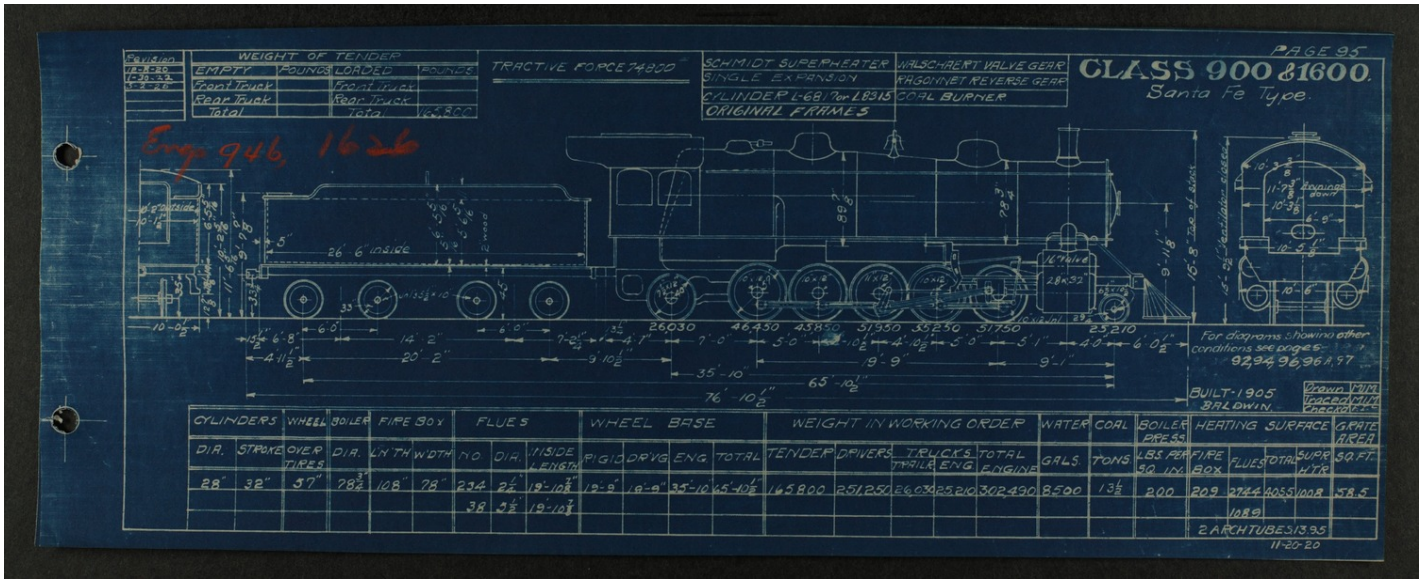
CYLINDERS		WHEEL	BOIL'R	FIRE BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER				WATER	OIL	BOILER PRESS.	HEATING SURFACE				GRATE AREA
DIA.	STROKE	OVER TIRE	DIA	L'NTH	WDTH	NO.	DIA	INSIDE LENGTH	RIGID	DRIVG.	ENG.	TOTAL	TENDER	DRIVERS	TRUCK TRAIL'R	TOTAL ENGINE	GALS.	GALS	LBS PER SQ IN.	FIRE BOX	FLUES	TOTAL	SUPR. HT'G	SQ FT
28"	32"	57"	78¾"	108"	78"	234	2¼"	19'-10⅞"	19'-9"	19'-9"	35'-11"	65'-11½"	179,000	253430	25302	230802	8500	3300	200	209	2744	4055	1008	58.5
						38	5½"	19'-10⅞"													1089			
																					2 ARCH TUBES		13.25	

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints

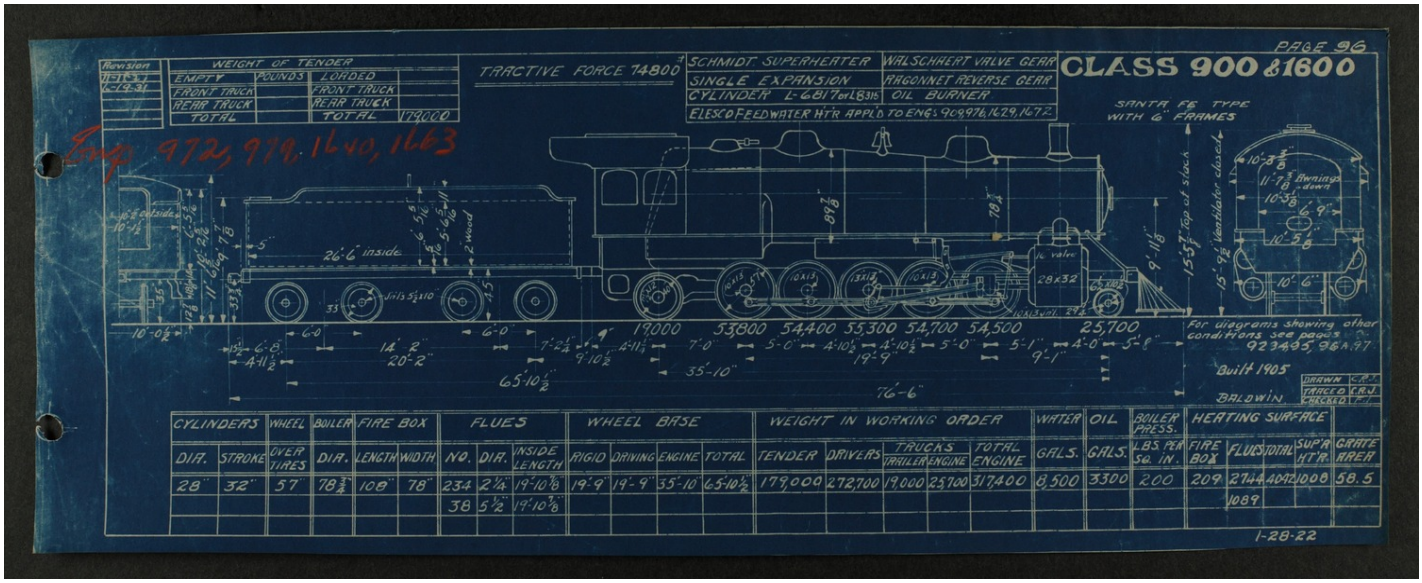


CYLINDERS		WHEEL	BOILER	FIRE BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER				WATER	COAL	BOILER PRESS	HEATING SURFACE				GRATE AREA
DIA.	STROKE	OVER TIRES	DIA.	L'N'TH	WIDTH	NO.	DIA.	INSIDE LENGTH	RIGID	DRVG.	ENG.	TOTAL	TENDER	DRIVERS	TRUCKS TRAIL	ENG.	TOTAL ENGINE	GALS.	TONS	LBS PER SQ. IN.	FIRE BOX	FLUES	TOTAL	SUPR HTR	SQ. FT.
28"	32"	57"	78 3/8	108"	78"	234	2 1/4"	19'-10 3/8"	19'-9"	19'-9"	35'-10"	65'-10 1/2"	165,800	251,250	26,030	225,210	302,490	8,500	13 1/2	200	209	2744	4055	1008	58.5
						38	2 1/4"	19'-10 3/8"													1089			

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints

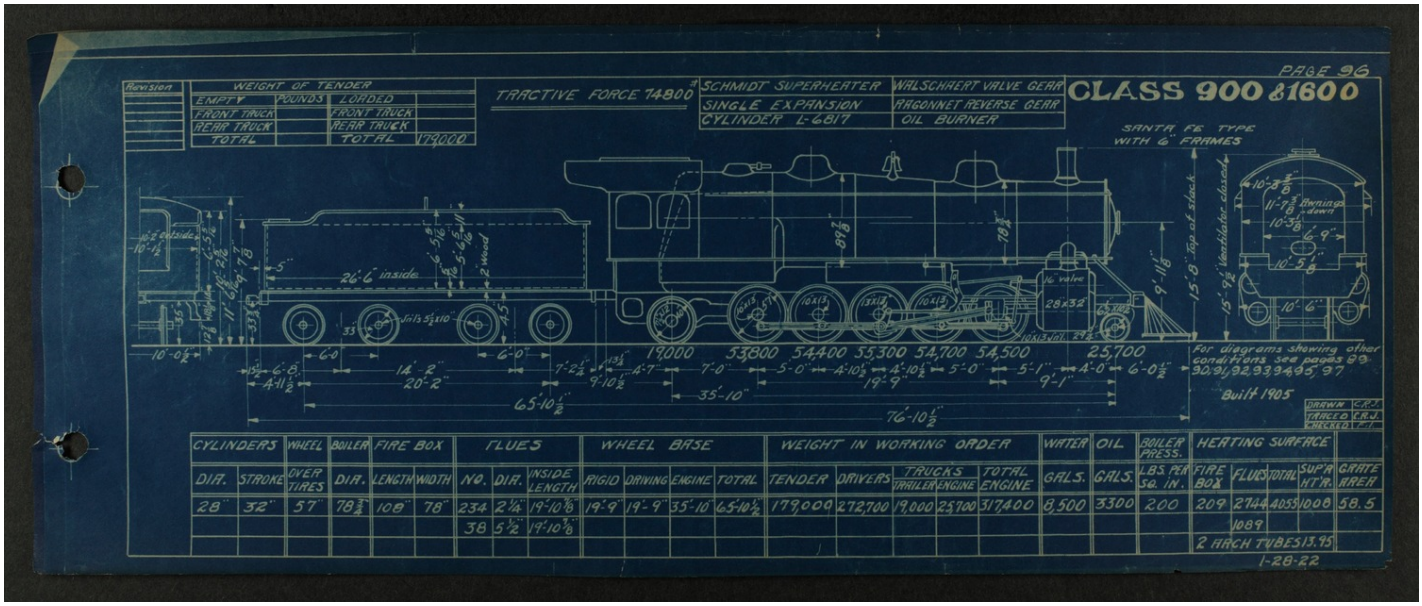


Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



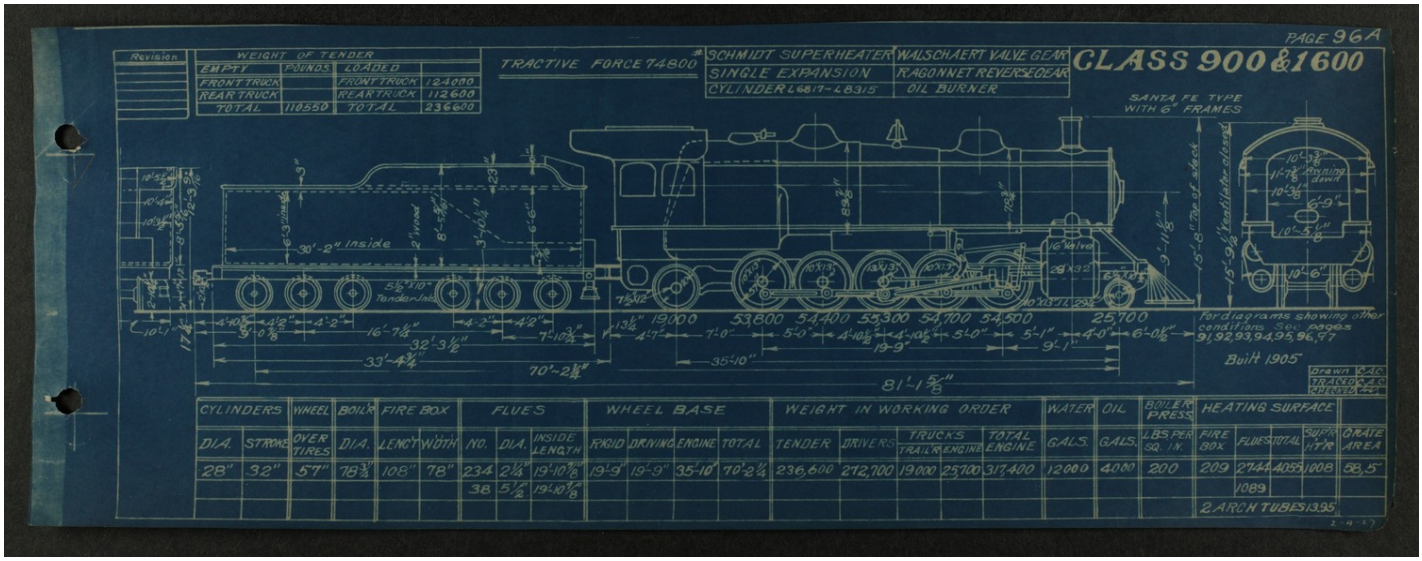
CYLINDERS		WHEEL	BOILER	FIRE BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER					WATER	OIL	BOILER PRESS.	HEATING SURFACE			
DIA.	STROKE	OVER TIRES	DIA.	LENGTH	WIDTH	NO.	DIA.	INSIDE LENGTH	RIGID	DRIVING	ENGINE	TOTAL	TENDER	DRIVERS	TRUCKS TRAILER	TRUCKS ENGINE	TOTAL ENGINE	GALS.	GALS.	LBS. PER Sq. IN.	FIRE BOX	FLUES	TOTAL	SUP'R HT'R.	GRATE AREA
28"	32"	57"	78¾"	108"	78"	234	2¼"	19'-10⅜"	19'-9"	19'-9"	35'-10"	65'-10½"	179,000	272,700	19,000	25,700	317,400	8,500	3300	200	209	2744	4047	1000	58.5
						38	5½"	19'-10⅜"														1089		

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints

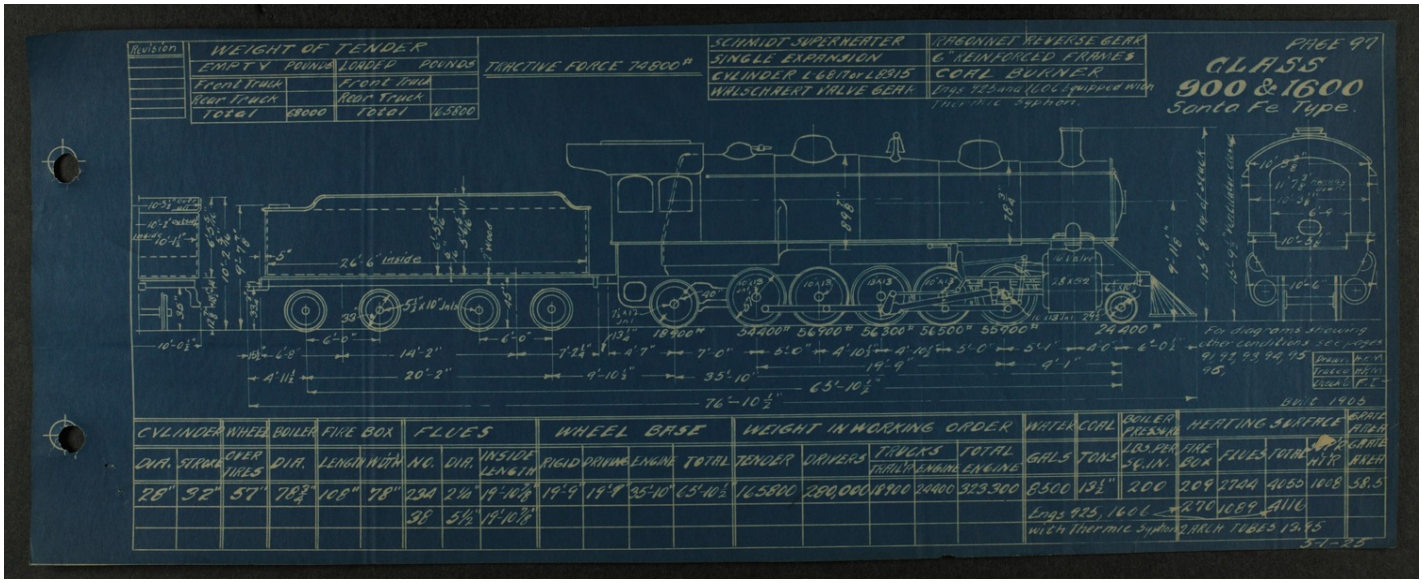


CYLINDERS		WHEEL	BOILER	FIRE BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER				WATER	OIL	BOILER PRESS.	HEATING SURFACE				
DIA.	STROKE	OVER TIRES	DIA.	LENGTH	WIDTH	NO.	DIA.	INSIDE LENGTH	RIGID	DRIVING	ENGINE	TOTAL	TENDER	DRIVERS	TRUCK'S TRAILER	TRUCK'S ENGINE	TOTAL ENGINE	GALS.	GALS.	LBS. PER Sq. IN.	FIRE BOX	FLUES	TOTAL	SUP'R HT'R.	GRATE AREA
28"	32"	57"	78 3/4"	108"	78"	234	2 1/4"	19'-10 3/8"	19'-9"	19'-9"	35'-10"	65'-10 1/2"	173,000	272,700	19,000	25,700	317,400	8,500	3300	200	209	2744	4053	1008	58.5
						38	5 1/2"	19'-10 3/8"														1089		
																					2 HARCH TUBES	13.95			

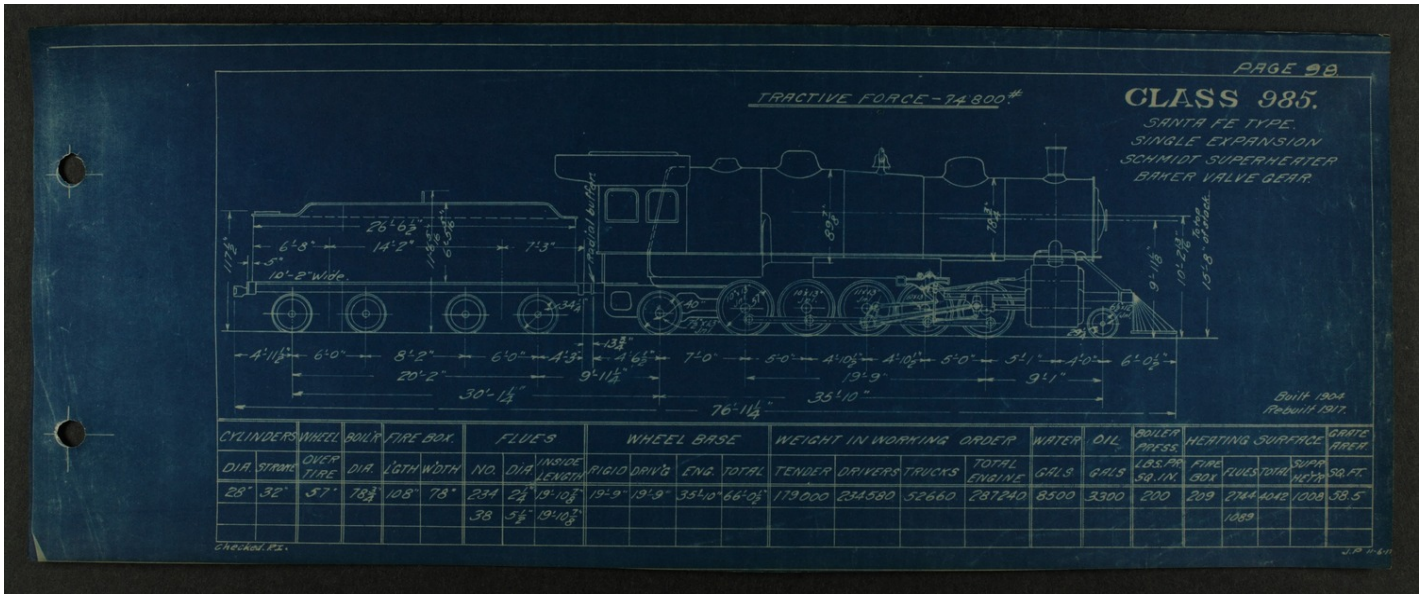
Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



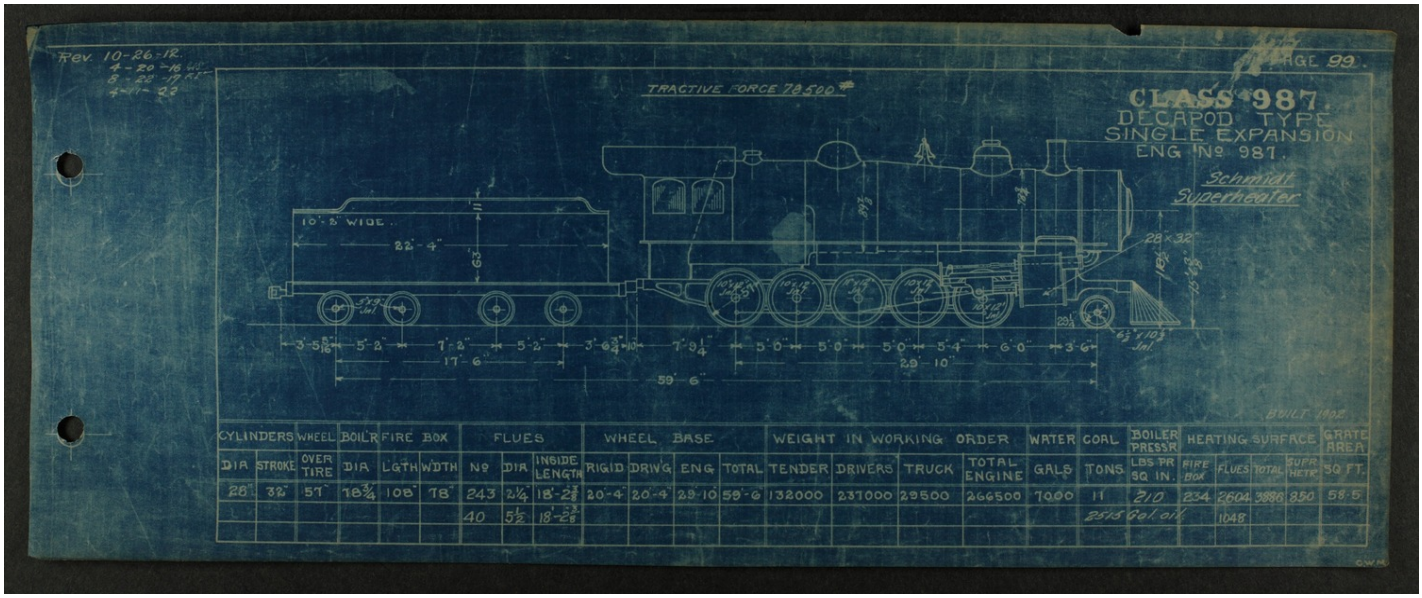
Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



CYLINDERS		WHEEL	BOILER	FIRE BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER				WATER	OIL	BOILER PRESS.	HEATING SURFACE				GRATE AREA
DIA.	STROKE	OVER TIRE	DIA.	LGTH	WIDTH	NO.	DIA	INSIDE LENGTH	RIGID	DRIV'G	ENG.	TOTAL	TENDER	DRIVERS	TRUCKS	TOTAL ENGINE	GALS.	GALS	LBS. PER SQ. IN.	FIRE BOX	FLUES	TOTAL	SUPR HEATG	SQ. FT.
28"	32"	57"	78¾"	108"	78"	234	2¼"	19'-10⅜"	19'-9"	19'-9"	35'-10"	66'-0½"	179000	234580	52660	287240	8500	3300	200	209	2744	4042	1008	38.5
						38	5½"	19'-10⅜"													1089			

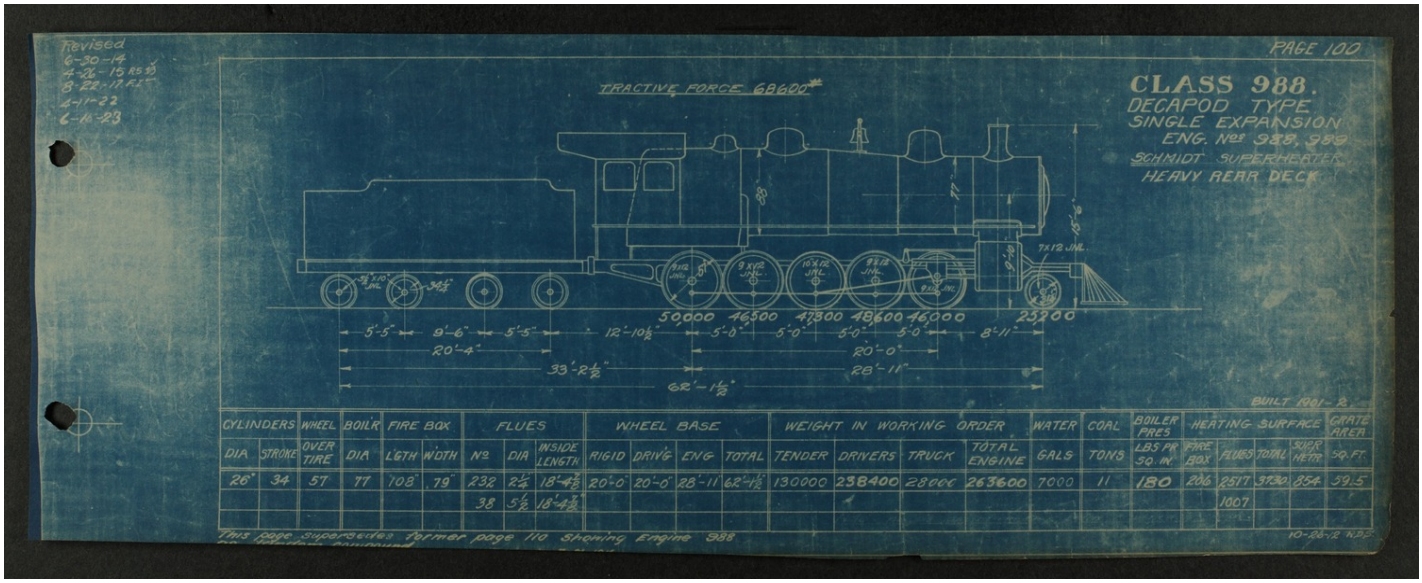
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Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



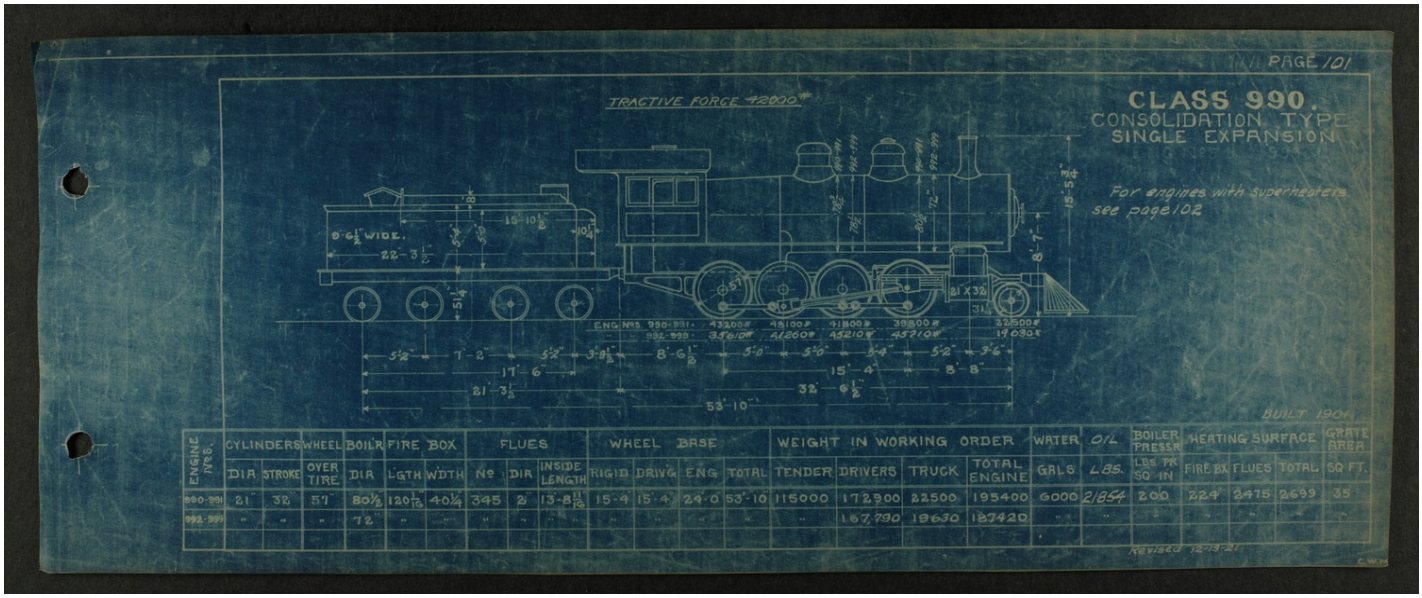
CYLINDERS		WHEEL	BOILER	FIRE BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER				WATER	COAL	BOILER PRESSR	HEATING SURFACE				GRATE AREA
DIA	STROKE	OVER TIRE	DIA	LGTH	WDTH	Nº	DIA	INSIDE LENGTH	RIGID	DRIVG	ENG	TOTAL	TENDER	DRIVERS	TRUCK	TOTAL ENGINE	GALS	TONS	LBS PR SQ IN.	FIRE BOX	FLUES	TOTAL	SUPR HTR	SQ FT.
28"	32"	57	76 3/4	108"	78"	243	2 1/4	18'-2 5/8	20-4	20-4	29-10	59'-6	132000	231000	29500	266500	7000	11	210	234	2604	3886	850	58.5
						40	5 1/2	18'-2 5/8										2515 Gal. oil			1048			

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



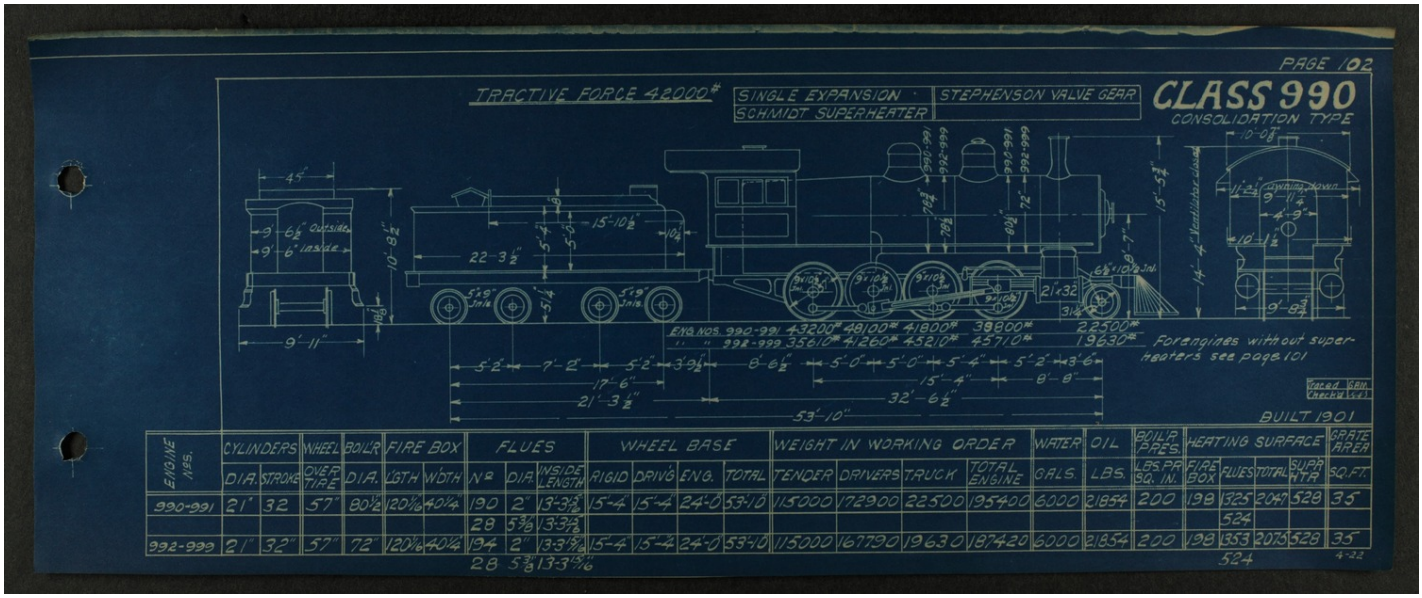
CYLINDERS		WHEEL	BOILR	FIRE BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER				WATER	COAL	BOILER PRES	HEATING SURFACE				GRATE AREA
DIA	STROKE	OVER TIRE	DIA	L'GTH	WIDTH	No	DIA	INSIDE LENGTH	RIGID	DRIV'G	ENG	TOTAL	TENDER	DRIVERS	TRUCK	TOTAL ENGINE	GALS	TONS	LBS PR SQ. IN.	FIRE BOX	FLUES	TOTAL	SUPER HEATR	SQ. FT.
26"	34	57	77	108"	79"	232	2¼	18'-4½"	20'-0"	20'-0"	28'-11"	62'-1½"	130000	238400	28000	263600	7000	11	180	206	2517	3730	854	59.5
						38	5½	18'-4½"													1007			

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



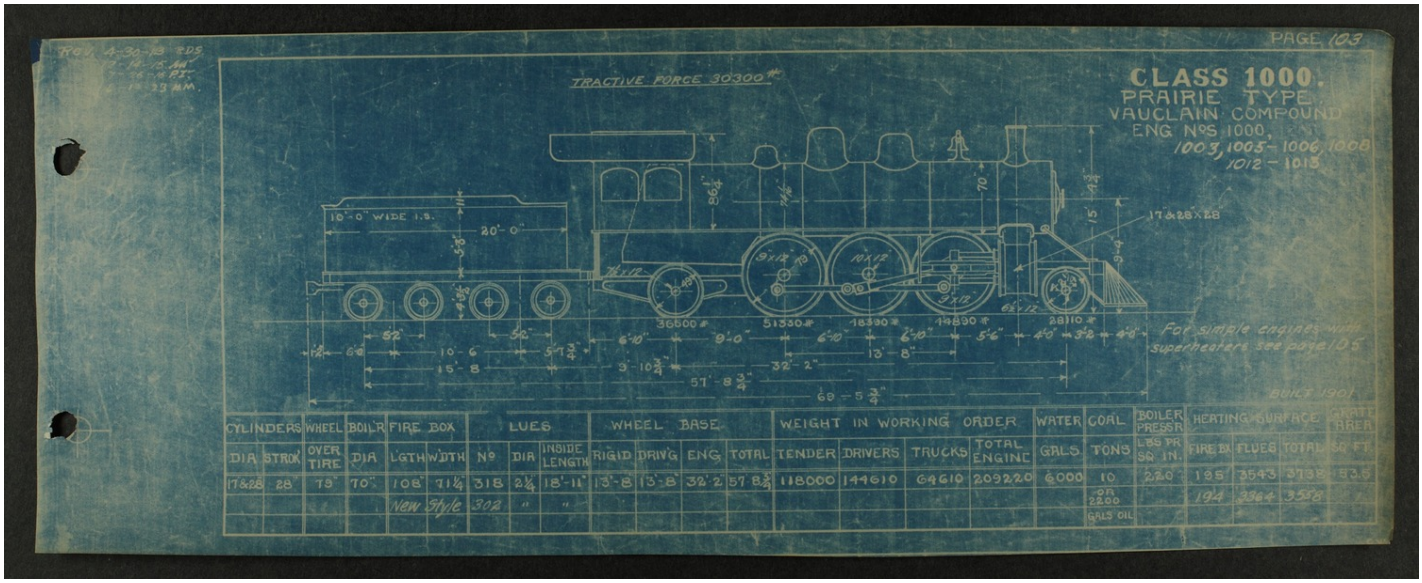
ENGINE NOS.	CYLINDERS		WHEEL	BOILR	FIRE BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER				WATER	OIL	BOILER PRESSR	HEATING SURFACE			GRATE AREA
	DIA	STROKE	OVER TIRE	DIA	LGTH	WIDTH	No	DIA	INSIDE LENGTH	RIGID	DRIVG	ENG	TOTAL	TENDER	DRIVERS	TRUCK	TOTAL ENGINE	GALS	LBS.	LBS PR SQ IN	FIRE BX	FLUES	TOTAL	SQ FT.
990-991	21	32	57	80½	120 13/16	40¼	345	2	13-8 11/16	15-4	15-4	24-0	53-10	115000	172,900	22500	195400	6000	2854	200	224	2475	2699	35
992-999	"	"	"	72	"	"	"	"	"	"	"	"	"	"	167,790	19630	187420	"	"	"	"	"	"	"

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



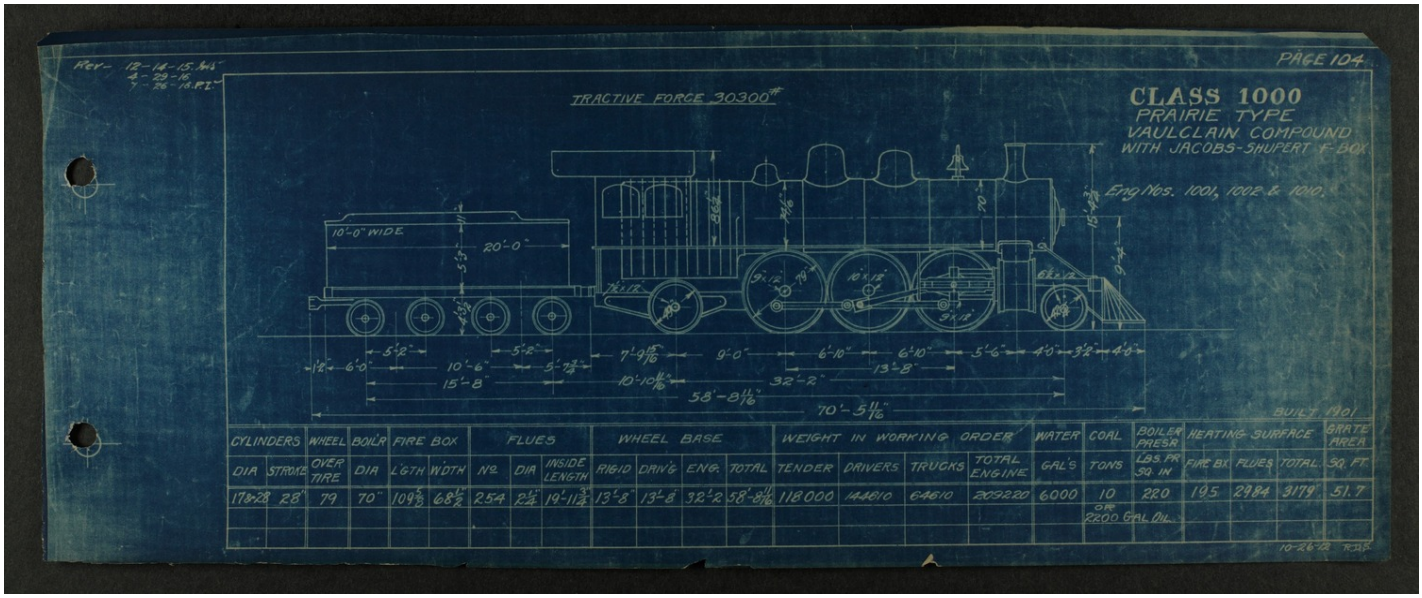
ENGINE NOS.	CYLINDERS DIA.	CYLINDERS STROKE	WHEEL OVER TIRE	BOIL'R DIA.	FIRE BOX LGTH	FIRE BOX WIDTH	FLUES No.	FLUES DIA.	FLUES INSIDE LENGTH	WHEEL BASE RIGID	WHEEL BASE DRIVG	WHEEL BASE ENG.	WHEEL BASE TOTAL	WEIGHT IN WORKING ORDER TENDER	DRIVERS	TRUCK	TOTAL ENGINE	WATER GALS.	OIL LBS.	BOIL'R PRES. LBS. PR SQ. IN.	HEATING SURFACE FIRE BOX	FLUES	TOTAL	SUPR HTR	GRATE AREA SQ. FT.
990-991	21"	32"	57"	80½	120⅛	40¼	190	2"	13-3⅞	15-4	15-4	24-0	53-10	115000	172900	22500	195400	6000	21854	200	198	1325	2047	528	35
							28	5⅜	13-3⅞													524			
992-999	21"	32"	57"	72"	120⅛	40¼	194	2"	13-3⅞	15-4	15-4	24-0	53-10	115000	167790	19630	187420	6000	21854	200	198	353	2075	528	35
							28	5⅜	13-3⅞													524			

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



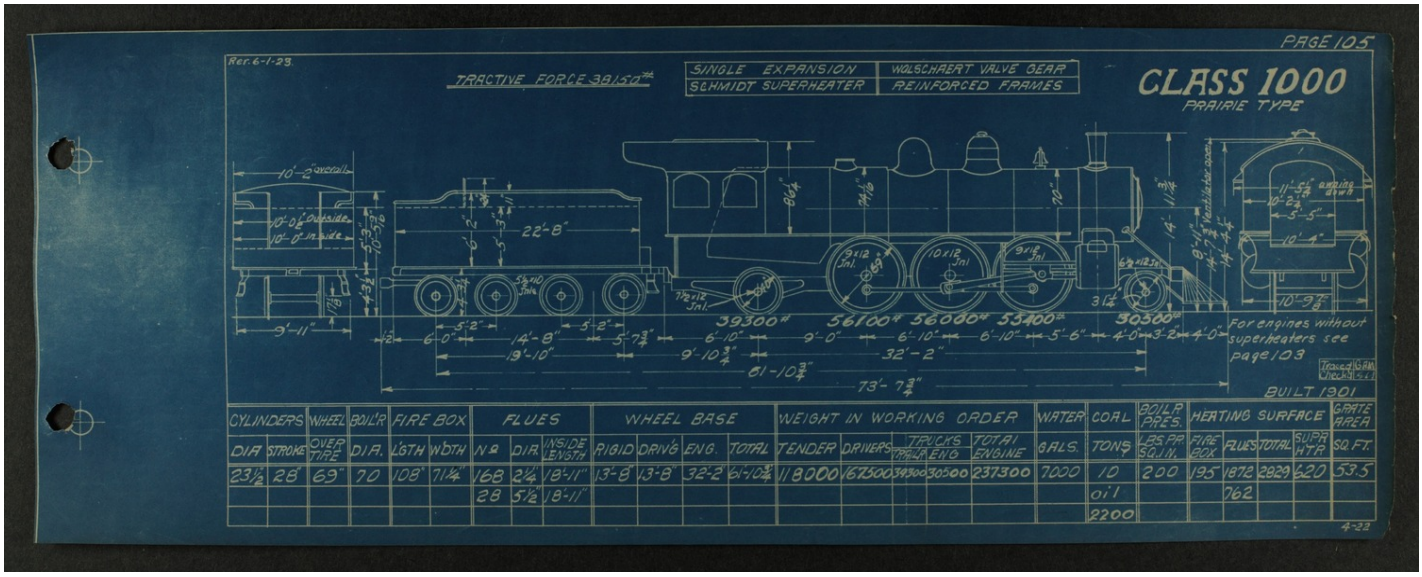
CYLINDERS		WHEEL	BOILR	FIRE BOX		TUBES			WHEEL BASE				WEIGHT IN WORKING ORDER				WATER	COAL	BOILER PRESSR	HEATING SURFACE			GRATE AREA
DIA	STROK	OVER TIRE	DIA	LGTH	WIDTH	No	DIA	INSIDE LENGTH	RIGID	DRIVG	ENG	TOTAL	TENDER	DRIVERS	TRUCKS	TOTAL ENGINE	GALS	TONS	LBS PR SQ IN.	FIRE DX	FLUES	TOTAL	SQ FT.
17&28	28	79	70"	108	71⅛	318	2¼	18'-11"	13'-8	13-8	32'-2	57'-8¾	118000	144610	64610	209220	6000	10 OR 2200 GALS OIL	220	195	3543	3738	53.5
				New Style		302	"	"												194	3364	3558	

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



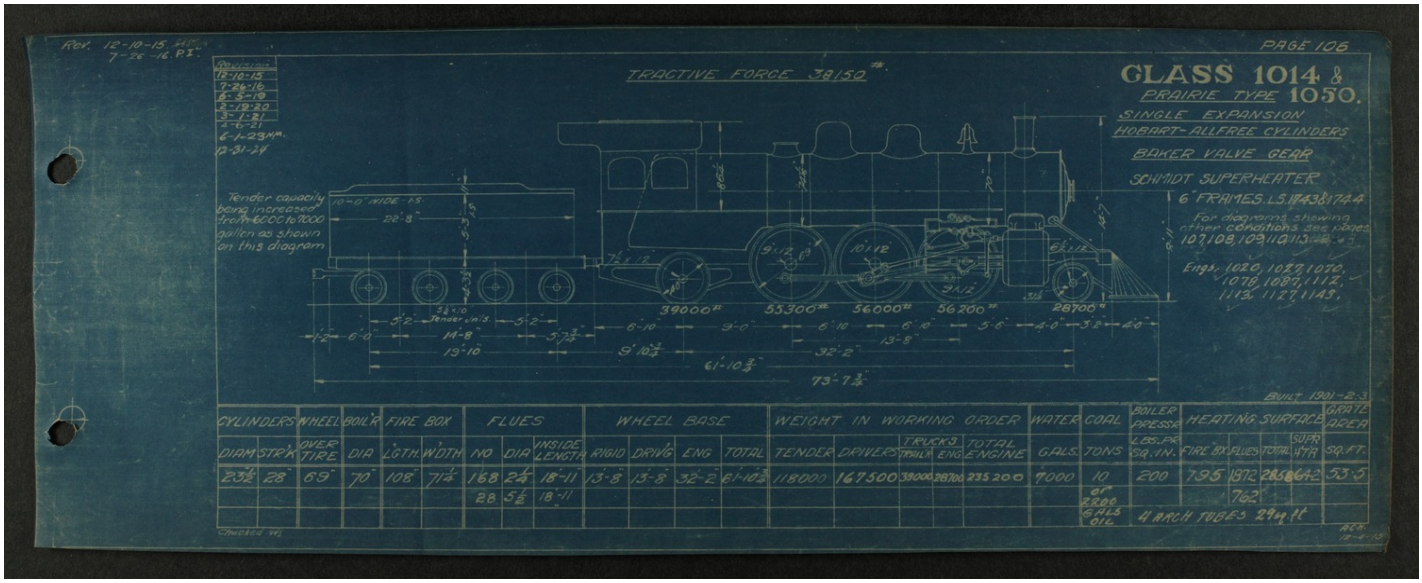
CYLINDERS		WHEEL	BOILR	FIRE BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER				WATER	COAL	BOILER PRESS	HEATING SURFACE			GRATE AREA
DIA	STROKE	OVER TIRE	DIA	LGTH	WIDTH	No.	DIA	INSIDE LENGTH	RIGID	DRIV'G	ENG.	TOTAL	TENDER	DRIVERS	TRUCKS	TOTAL ENGINE	GAL'S	TONS	LBS PR SQ. IN	FIRE BX	FLUES	TOTAL	SQ. FT.
17&28	28"	79	70"	109⅜	68⅝	254	2¼	19'-11¾	13'-8"	13'-8"	32'-2"	58'-8⅛"	118000	144810	64610	209220	6000	10 OR 2200 GAL OIL	220	195	2984	3179	51.7

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



CYLINDERS		WHEEL OVER TYPE	BOIL'R	FIRE BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER					WATER	COAL	BOIL'R PRES.	HEATING SURFACE				GRATE AREA
DIA	STROKE		D.A.	LGTH	WDTH	NO	DIA	INSIDE LENGTH	RIGID	DRIV'G	ENG.	TOTAL	TENDER	DRIVERS	TRUCK'S TRAIL'R	TRUCK'S ENG	TOTAL ENGINE	GALS.	TONS	LBS PR SQ.IN.	FIRE BOX	FLUES	TOTAL	SUPR HTR	SQ.FT.
23½	28	69"	70	108"	71¼"	168	2¼	18'-11"	13'-8"	13'-8"	32'-2"	61'-10¾"	118000	167300	39300	30500	237300	7000	10	200	195	1872	2029	420	535
						28	5½	18'-11"											oil			762			
																			2200						

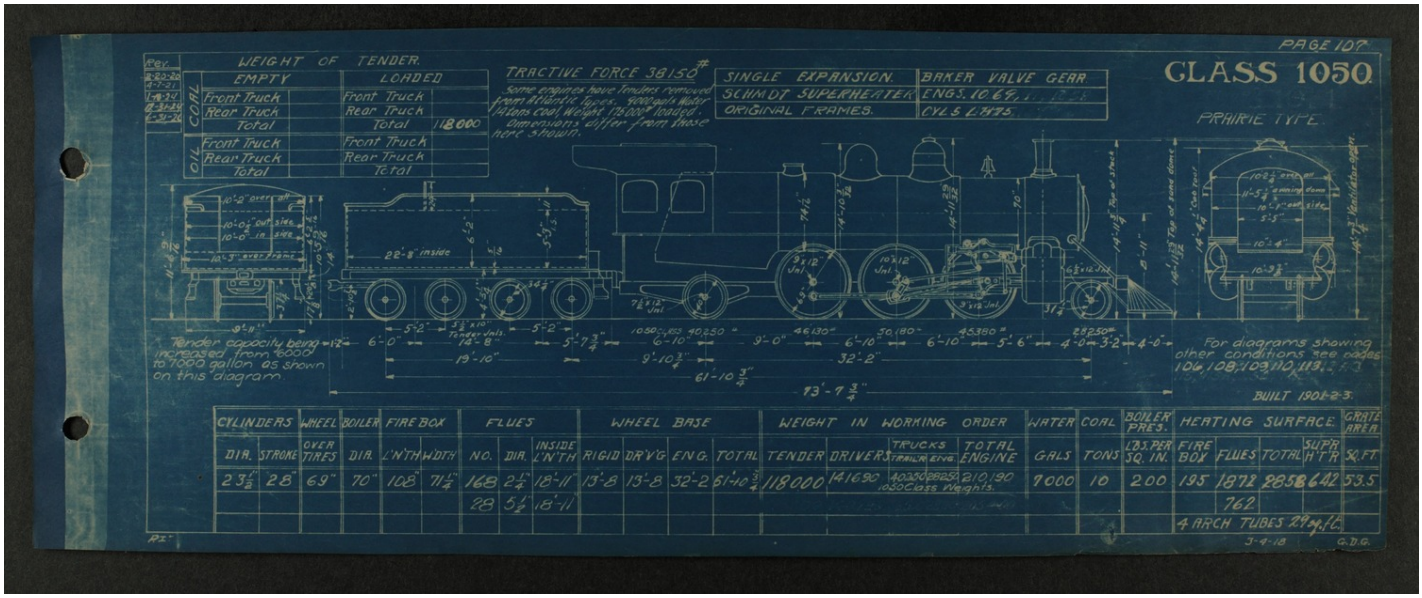
Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



CYLINDERS		WHEEL	BOIL'R	FIRE BOX			FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER					WATER	COAL	BOILER PRESSR	HEATING SURFACE				GRATE AREA
DIAM	STR'K	OVER TIRE	DIA	LGTH	WIDTH	NO	DIA	INSIDE LENGTH	RIGID	DRIVG	ENG	TOTAL	TENDER	DRIVERS	TRUCK'G TRAILR	TOTAL ENGINE		GALS.	TONS	LBS. PR SQ. IN.	FIRE BOX	FLUES	TOTAL	SUPR HTR	SQ. FT.
23½	28	69	70	108	71¼	168	2¼	18'-11	13'-8	13'-8	32'-2	61'-10½	118000	167500	39000	28700	235200	7000	10 or 2200 GALS OIL	200	795	1872	2667	762	53.5
						28	5½	18'-11																		

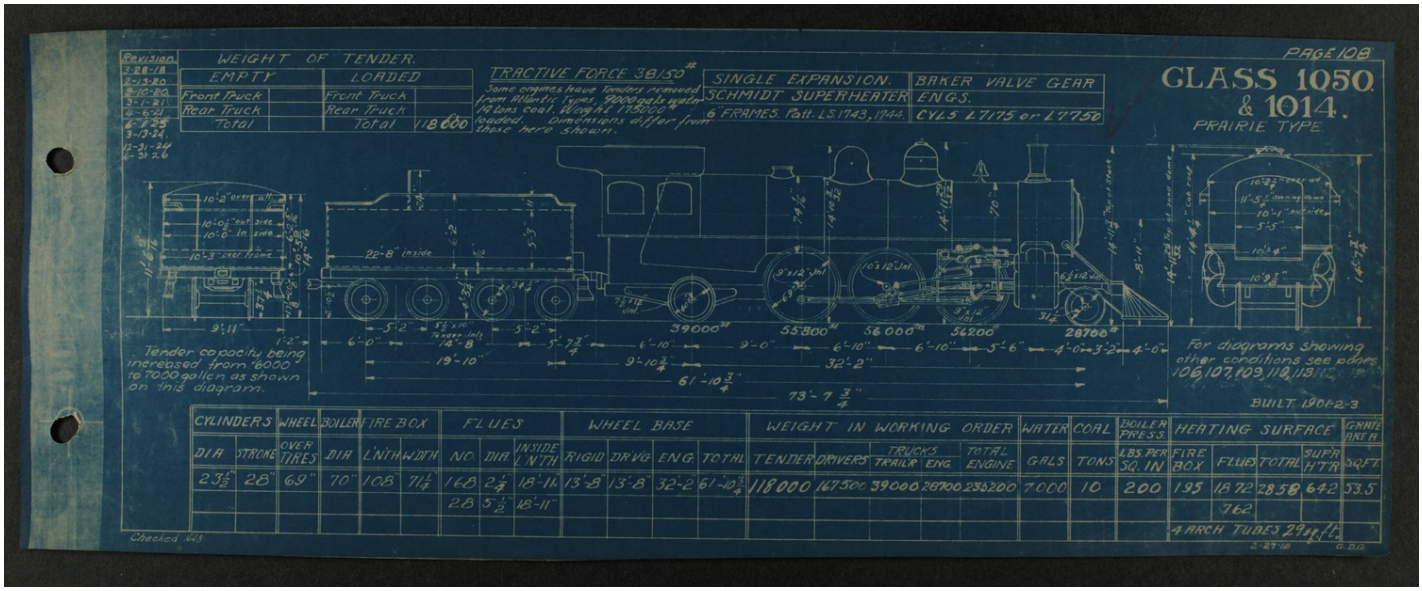
4 INCH TUBES 29 sq. ft.

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints

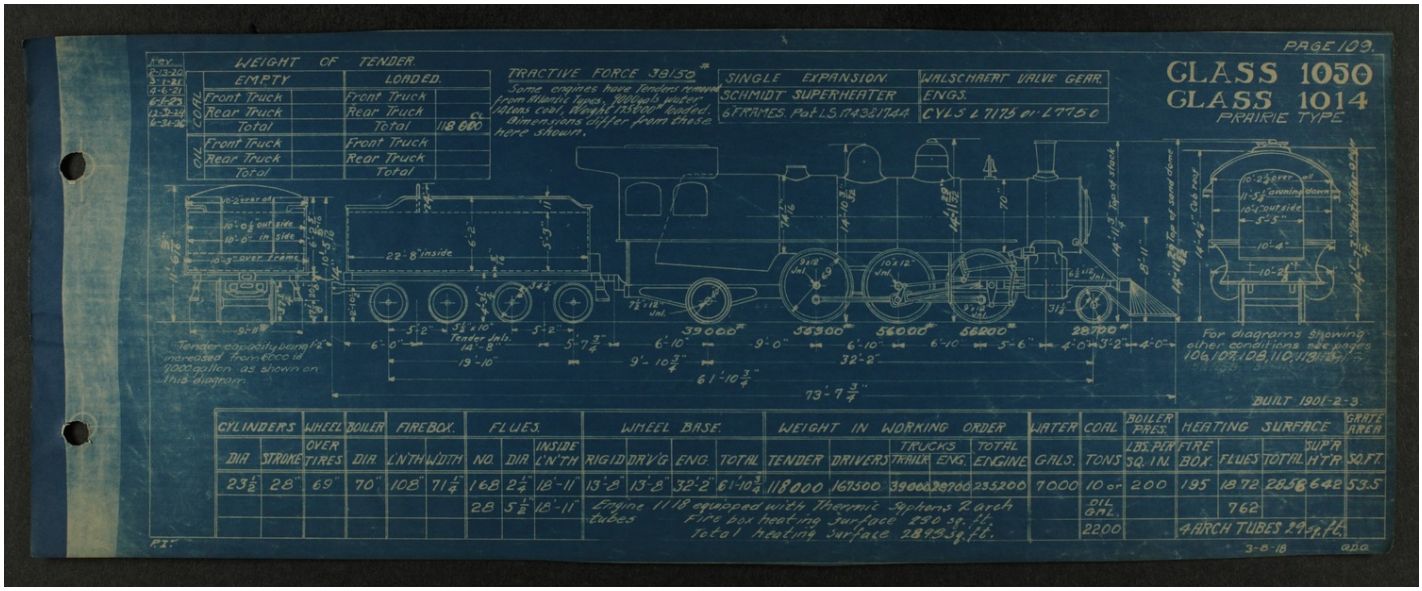


CYLINDERS		WHEEL	BOILER	FIRE BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER				WATER	COAL	BOILER PRES.	HEATING SURFACE				GRATE AREA
DIA.	STROKE	OVER TIRES	DIA.	L'NTH	WIDTH	NO.	DIA.	INSIDE L'NTH	RIGID	DR'V'G	ENG.	TOTAL	TENDER	DRIVERS	TRUCKS STABILIZER	TOTAL ENGINE	GALS	TONS	LBS PER SQ. IN.	FIRE BOX	FLUES	TOTAL	SUPR. H'T'R	SQ. FT.
23½	28	69"	70"	108"	71¼"	168	2¼	18'-11"	13'-8	13'-8	32'-2	61'-10¾	118000	141690	40200 BB25 1050 Class Weights	210,190	9000	10	200	195	1872	2858	642	53.5
						28	5½	18'-11"													762			
																				4 ARCH TUBES 29 sq. ft.				

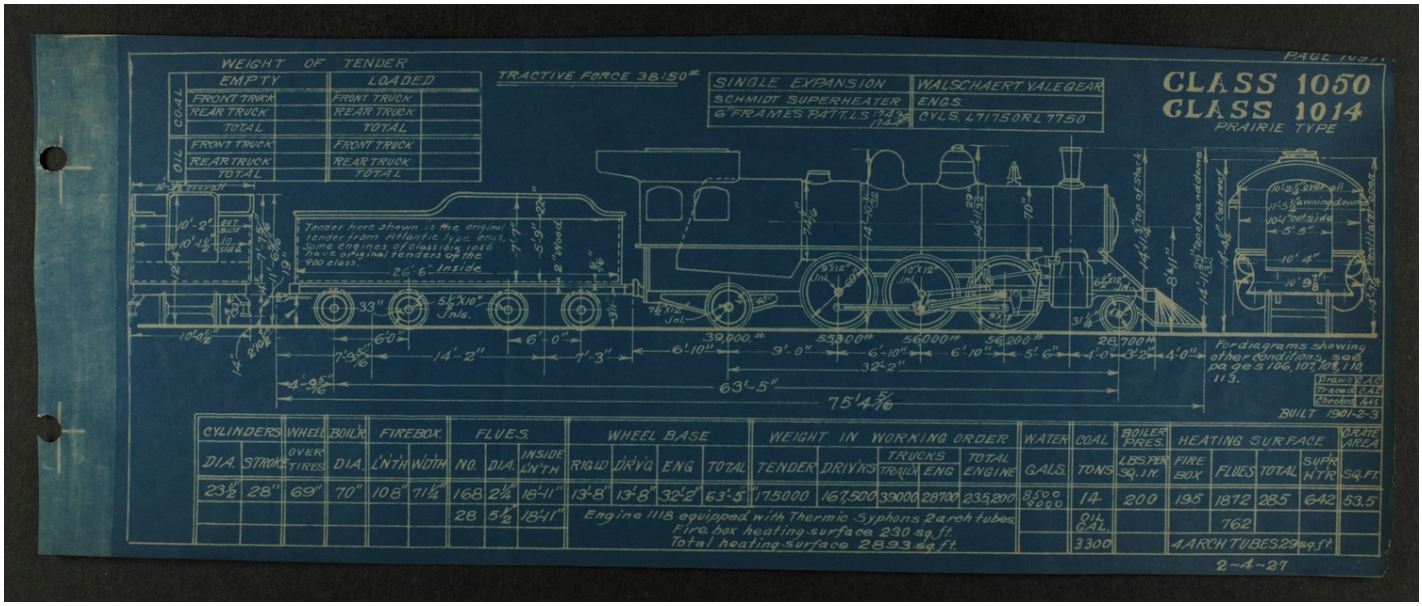
Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



Atchison, Topeka and Santa Fe steam engine diagrams and blueprints

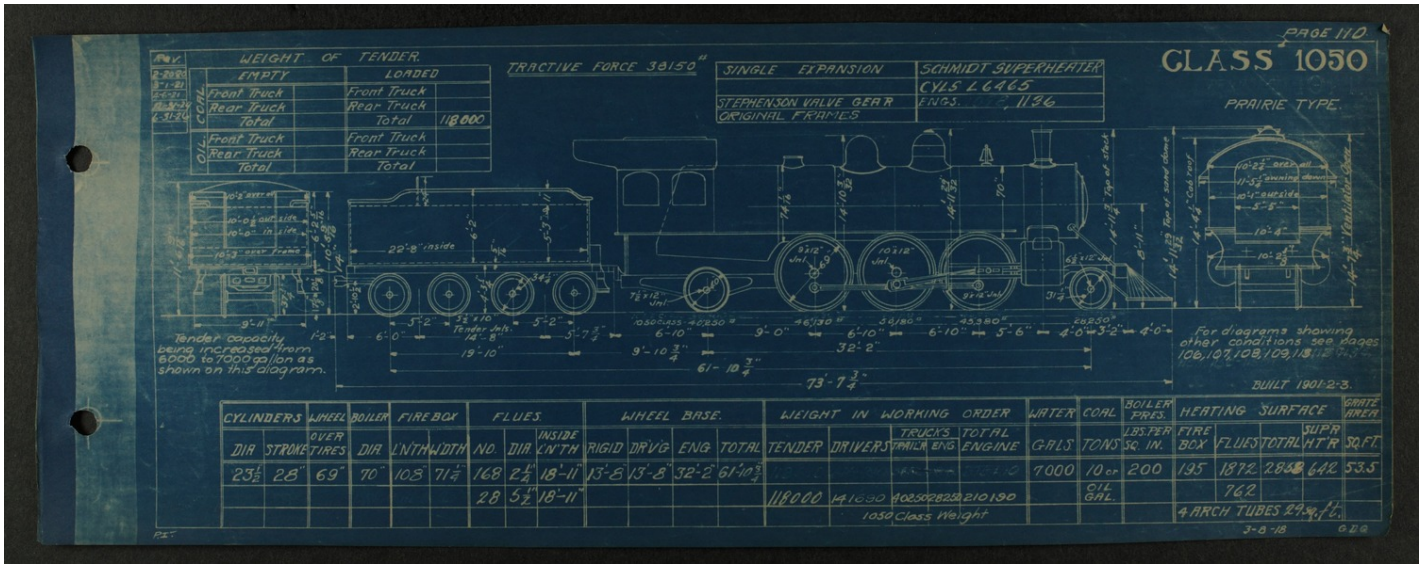


Atchison, Topeka and Santa Fe steam engine diagrams and blueprints

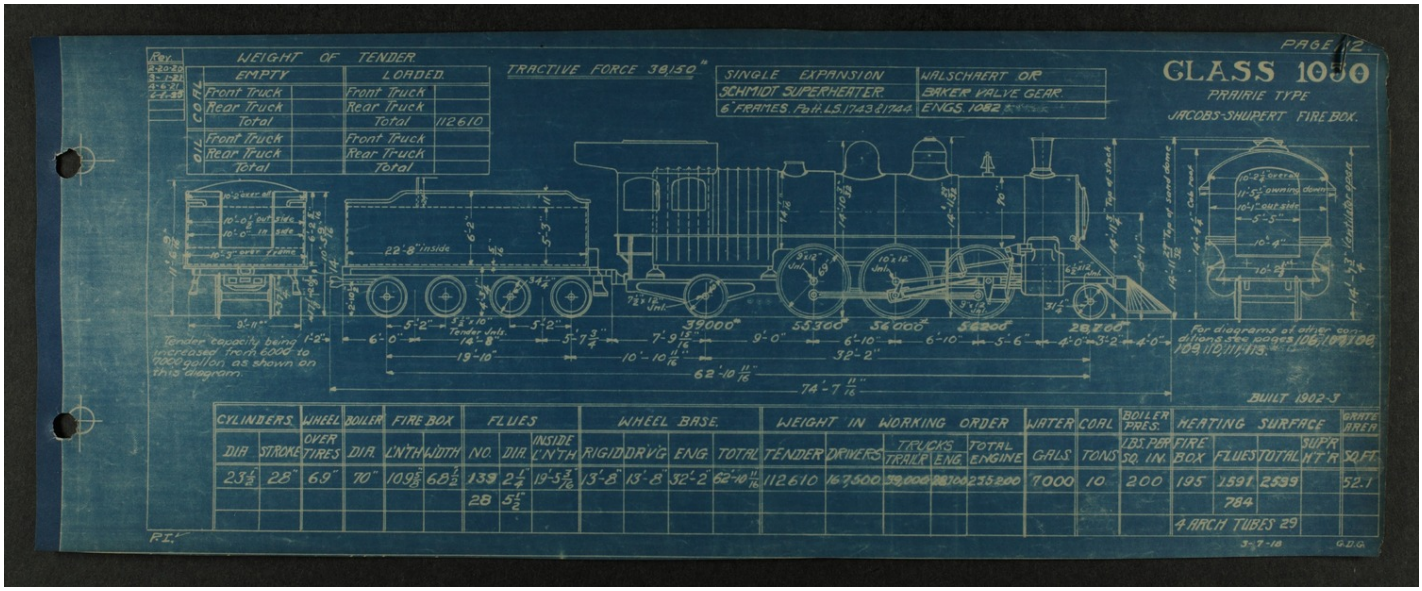


CYLINDERS		WHEEL	BOILER	FIREBOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER					WATER	COAL	BOILER PRES.	HEATING SURFACE				GRATE AREA
DIA.	STROKE	OVER TIRES	DIA.	L'N'TH	WIDTH	NO.	DIA.	INSIDE L'N'TH	RIGID	DRV'G	ENG	TOTAL	TENDER	DRIV'RS	TRUCKS TRAIL'R	TOTAL ENG	TOTAL ENGINE	GALS.	TONS	LBS. PER SQ. IN.	FIRE BOX	FLUES	TOTAL	SUPR HTR	SQ. FT.
23½	28"	69"	70"	108"	71¼"	168	2¼"	18'-11"	13'-8"	13'-8"	32'-2"	63'-5"	175000	167500	39000	28700	235200	8500 9000	14	200	195	1872	285	642	53.5
						28	5½"	18'-11"	Engine 1118 equipped with Thermic Syphons 2 arch tubes										8¼ 6.4L			762			
									Fire box heating surface 230 sq. ft.										3300		4 ARCH TUBES 29 sq. ft.				
									Total heating surface 2893 sq. ft.																

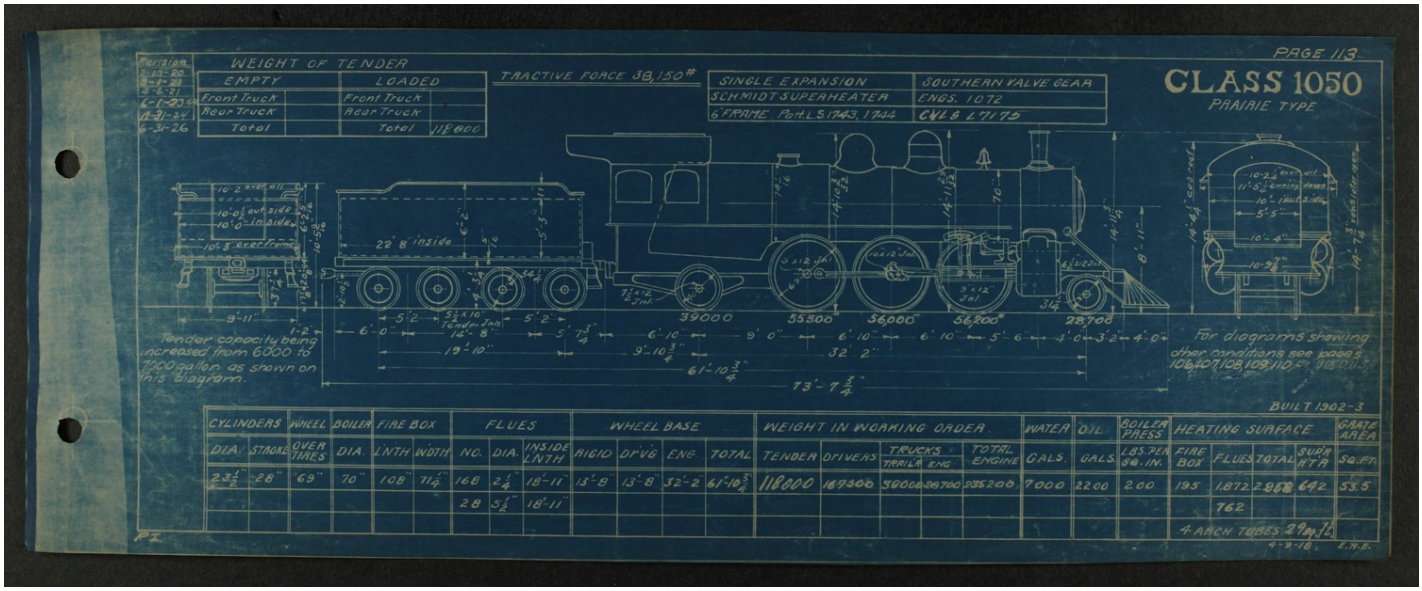
Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



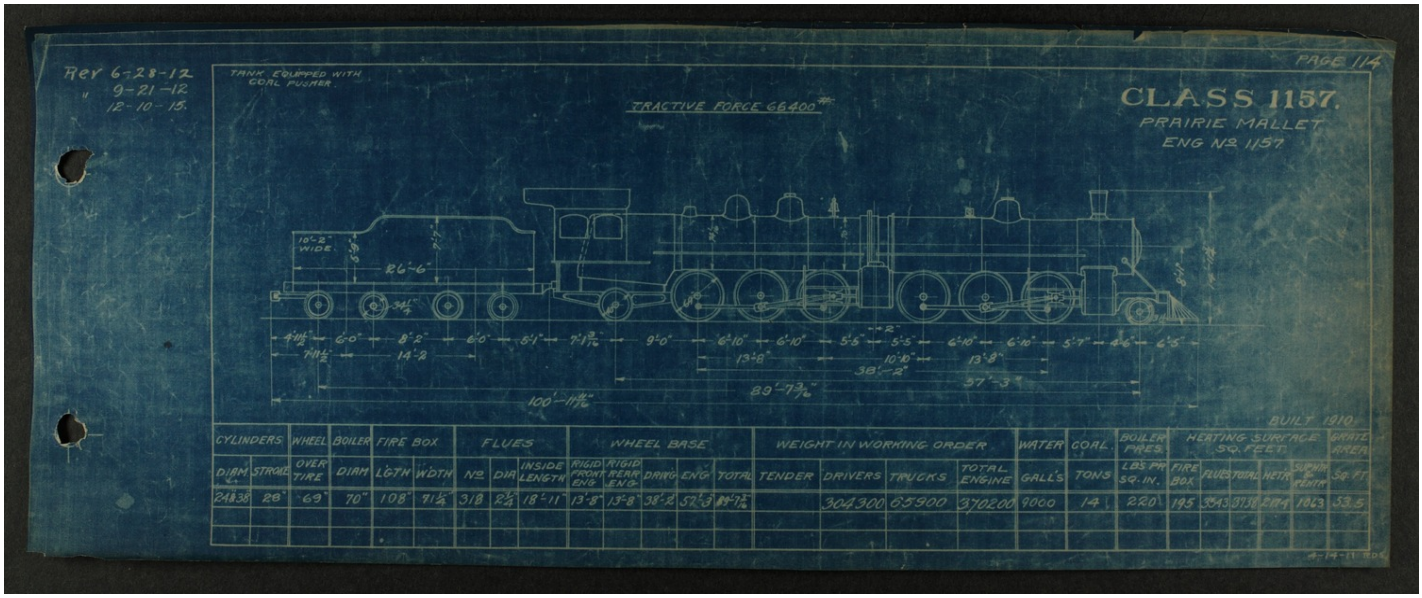
Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



Atchison, Topeka and Santa Fe steam engine diagrams and blueprints

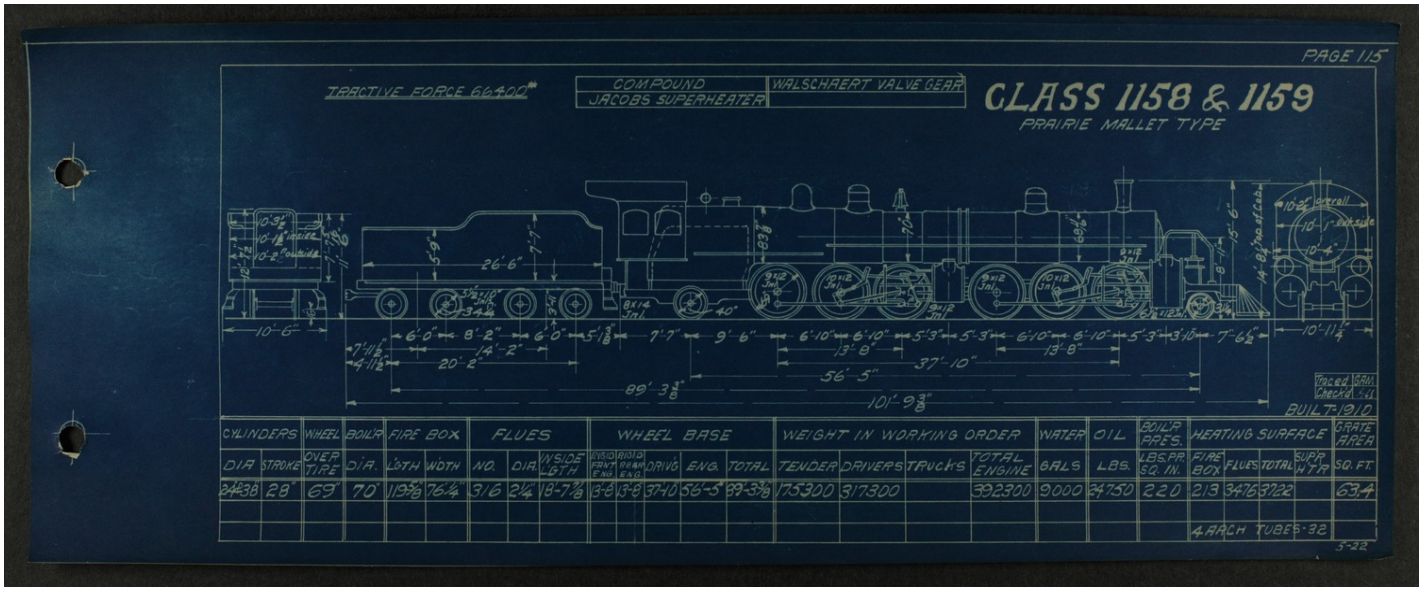


Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



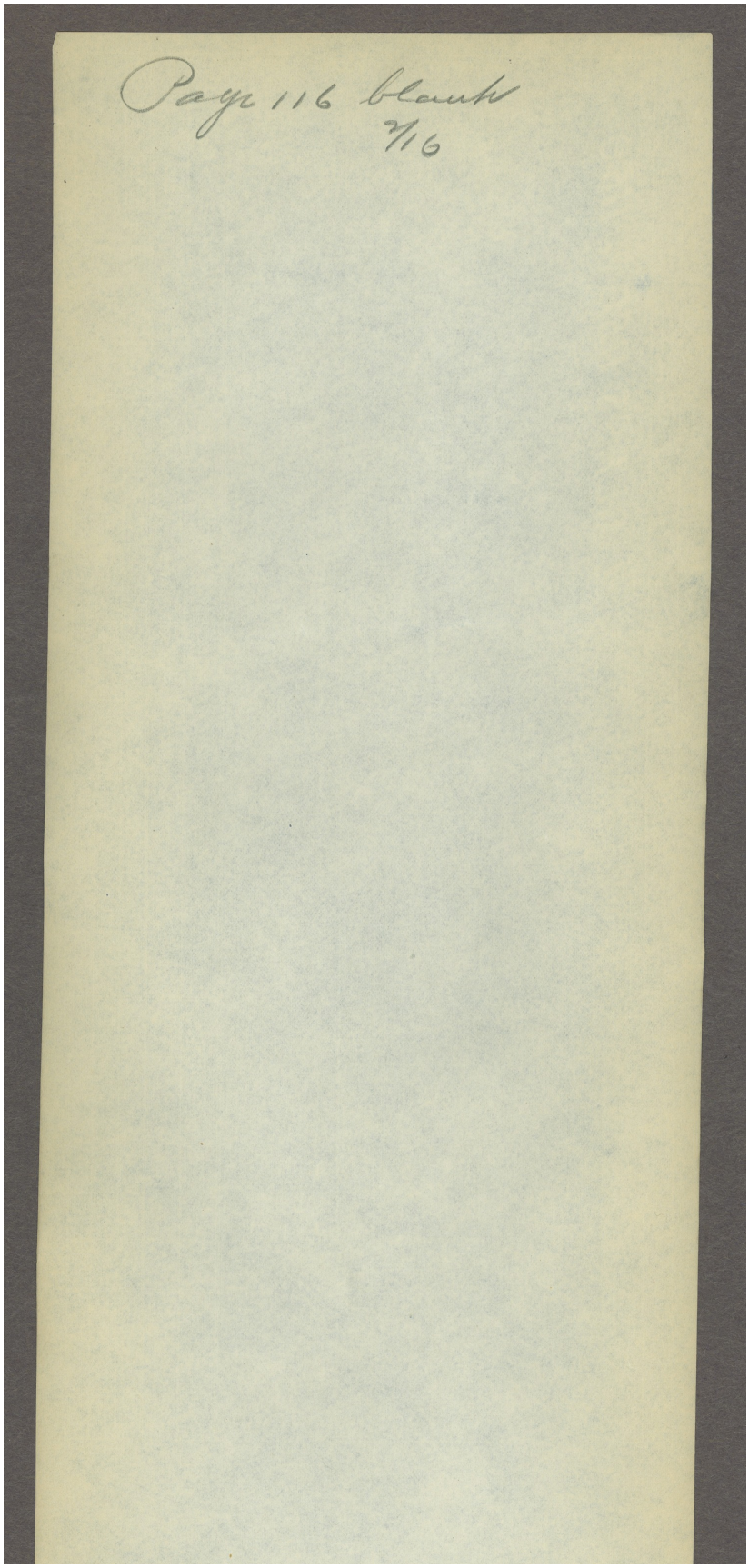
CYLINDERS		WHEEL	BOILER	FIRE BOX		FLUES			WHEEL BASE					WEIGHT IN WORKING ORDER				WATER	COAL	BOILER PRES.	HEATING SURFACE SQ. FEET.				GRATE AREA
DIAM	STROKE	OVER TIRE	DIAM	LGTH	WDTH	Nº	DIA	INSIDE LENGTH	RIGID FRONT ENG	RIGID REAR ENG.	DRIVG	ENG	TOTAL	TENDER	DRIVERS	TRUCKS	TOTAL ENGINE	GALL'S	TONS	LBS PR SQ. IN.	FIRE BOX	FLUES	TOTAL	HEATR	SUPHTR ADDITN	SQ. FT
24⅛38	28"	69"	70"	108"	71½"	318	2¼	18'-11"	13'-8"	13'-8"	38'-2"	52'-3"	89'-7⅞"		304300	65900	370200	9000	14	220	195	3543	3738	2174	1063	53.5

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints

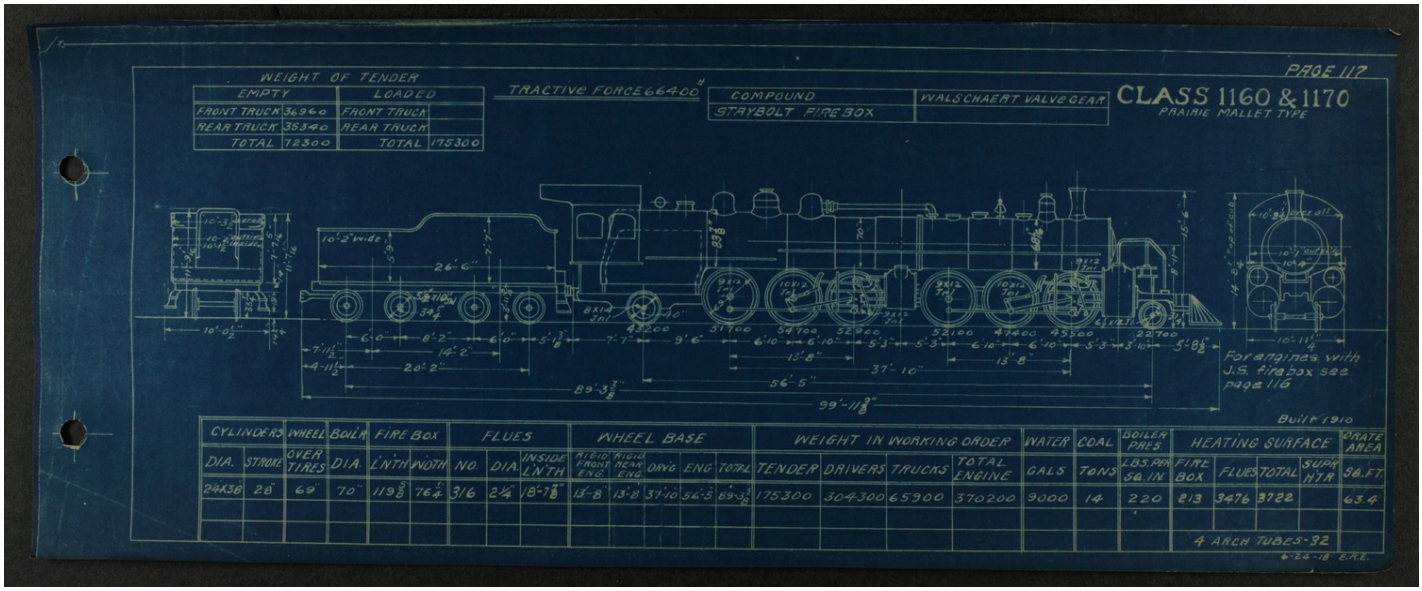


CYLINDERS		WHEEL	BOILR	FIRE BOX		FLUES			WHEEL BASE				WEIGHT IN WORKING ORDER				WATER	OIL	BOILR PRES.	HEATING SURFACE				GRATE AREA
DIA	STROKE	OVER TIRE	DIA.	LGTH	WIDTH	NO.	DIA.	W.SIDE LGTH	DIS'D FRNT ENG	DIS'D REAR ENG	DRIVG	ENG.	TOTAL	TENDER	DRIVERS	TRUCKS	TOTAL ENGINE	GALS	LBS.	LBS. PR SQ. IN.	FIRE BOX	FLUES	TOTAL	SUPR HTG	SQ. FT
24&38	28"	69"	70"	119⅝	76¼	316	2¼	18-7⅛	13-8	13-8	37-10	56-5	89-3⅜	175300	317300		493300	9000	24750	220	213	3476	3722		634
																					4 ARCH TUBES-32				

Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



Atchison, Topeka and Santa Fe steam engine diagrams and blueprints



CYLINDERS		WHEEL	BOILER	FIRE BOX		FLUES			WHEEL BASE					WEIGHT IN WORKING ORDER				WATER	COAL	BOILER PRES	HEATING SURFACE				GRATE AREA
DIA.	STROKE	OVER TIRES	DIA.	L'NTH	WIDTH	NO.	DIA.	INSIDE L'NTH	RIGID FRONT ENG.	RIGID REAR ENG.	DRVG	ENG	TOTAL	TENDER	DRIVERS	TRUCKS	TOTAL ENGINE	GALS	TONS	LBS. PER SQ. IN	FIRE BOX	FLUES	TOTAL	SUPR HTR	SQ. FT.
24&36	28"	69"	70"	119 3/8"	76 1/4"	316	2 1/4"	18'-7 7/8"	15'-8"	13'-8"	37'-10"	56'-5"	89'-3 3/8"	175300	304300	65900	370200	9000	14	220	213	3476	3722		63.4