Beech Aircraft Corporation

Wichita, Kansas

SPECIFICATION

SPEC. NO. P.S. 120 C

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SPECIFICATION FOR IDENTIFICATION OF PLUMBING

(Inactive for Future Designs, September 20, 1952)

1. SCOPE

1.1 Purpose.- This specification establishes the requirements for the identification of plumbing on the interior of aircraft and provides an interpretation of the identification of lines by system name.

1.2 Definitions:

1.2.1 Tape.- The term tape as used in this specification means fluid line identification tape of laminated construction with printed content or function identification. No. TAP-5A tape produced by the Top Flight Tape Company in accordance with the latest revision of Air Force-Navy Aeronautical Design Standard AND10375 meets this requirement.

2. APPLICABLE SPECIFICATIONS AND DRAWINGS.

2.1 Specifications:

US Army 98-24105	Marking for Airplane and Airplane Parts

2.2 Drawings:

AND10375	Colors - Fluid Line Identification

3. REQUIREMENTS

3.1 Identification of Lines.- Identify all flexible and nonflexible lines used for transmitting gases and liquids, except air ducts, in accordance with AND10375.

3.2 Preparation of Surface.- Clean the areas to be identified by any approved method. The areas must be free from grease, oils, and other foreign matter before the tape is applied.

3.3 Selection of Tape.- Select the proper system name from the Identification Table given in Paragraph 3.5 of this specification. Select the applicable color identification tape from AND10375.

3.4 Application.- Apply the tape with at least one and one-half turns and seal the ends securely.

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DATE ISSUE	DATE REVISED	WRITTEN	APPROVED	CHIEF DRAFTSMAN	CHIEF ENGINEER
3-21-41	10-4-52	Nelson 10-10-52		Newman 10-10-52	

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3.5 Identification Table.- The following table provides information on the selection of the system names for the various items of tubing.

TYPE OF LINES	IDENTIFICATION	DETAIL APPLICATION
Air Ducts for Cabin Heaters:		
Cold	None required	Lines carrying cold air from intakes to discharge ports, heaters, vents, etc.
Hot	None required	Lines carrying hot air from heater to discharge ports, dispensing units, vents, etc.
Air Pressure - Compressed Air: (Low pressure 20 psi max.)		See deicer system lines.
Other (High pressure 25 psi min)		No present application at Beech. Refer future requirements to Liaison Engineering.
Combustion Heaters:		
Fuel-Air Vapor		No present application at Beech. Refer future requirements to Liaison Engineering
Fuel	Fuel	Fuel supply lines.
Drain	Fuel	Heater overflow lines.
Exhaust	None required	Lines carrying exhaust gases from heater to discharge ports.
Deicer System (Fluid, ice-prevention, glycerine and alcohol; also pressure, vacuum, oil and vent)	Deicing	Lines carrying glycerine-alcohol mixture from reservoir to pump to control valve to propeller. Pressure lines from the firewalls to the deicer control valve

DATE ISSUE	DATE REVISED	WRITER	APPROVED	CHIEF ENGINEER	CHIEF ENGINEER
3-21-42	10-1-52	Newman 10-10-52		Newman 10-10-52	

3.5 Identification Table.- (Continued)

TYPE OF LINES	IDENTIFICATION	DETAIL APPLICATION
		assembly. Oil lines from oil separator to control valve assembly. Vacuum line from the main vacuum system line to control valve. Pressure line from oil separator to instrument panel gage. All lines from control valve assembly to outlets in leading edge and tail surface. Vent and breather lines from control valve and oil separator to discharge ports.
Exhaust Analyzer	Compressed Gas	Lines carrying exhaust gases from exhaust stacks to gas analysis chamber and return.
Fire Extinguisher	Fire Protection	Lines carrying fire extinguisher gas or fluid from storage cylinder to power plants and other areas.
Fuel System	Fuel	Lines carrying liquid or vaporized fuel from storage tanks to pumps, power plants, carburetors, gages, metering and selecting devices, and to the oil system for dilution purposes. Fuel drain lines from strainers, pumps, carburetors, tanks, equalizers, induction system heaters, and engine primer lines. Fuel tank vent lines.
Hydraulic Fluid	Hydraulic	Lines carrying hydraulic fluid from reservoir to pumps, pressure gages and regulators, automatic-pilot actuating cylinders, brakes gun chargers, accumulators, filters, and valves. All lines providing a drain or vent for hydraulic fluid from reservoirs, pumps, etc.
Manifold Pressure	Fuel	Lines connecting engine manifold with pressure gages, superchargers, fuel pressure regulators, valves, etc.

DATE ISSUE	DATE REVISED	WRITER	APPROVED	CHIEF ENGINEER	CHIEF ENGINEER
3-21-41	10-1-52	Lawman 10-10-52	A.K. Fennell	Lawman 10-10-52	

3.5 Identification Table.- (Continued)

TYPE OF LINES	IDENTIFICATION	DETAIL APPLICATION
Oil, Lubricating	Lubriection	Lines carrying lubricating oil from storage tanks to engines and return. Lines from engines to pressure gages. Supply and drain lines in governor system. Engine-driven generator drain lines. Engine suction oil separator drain line. Automatic-pilot hydraulic pump lubricating oil drain line. Propeller feathering pump system supply line, oil tank drains, and vents. Crankcase breather line.
Oxygen	Breathing Oxygen	Lines carrying oxygen from storage bottles to pressure gages, regulators, rectifiers and dispensing mechanism. Lines for refilling oxygen bottles.
Pitot Tube Pressure	Instrument Air	Lines connecting pitot tube with air speed indicator.
Static Tube Pressure	Instrument Air	Lines connecting static tube with pressure gages, regulators, air speed indicator, altimeter, and rate of climb indicator.
Pressure Control Units:		
Fuel Tank	Fuel	Lines connecting fuel cells with pressure control units.
Vacuum	Instrument Air	Lines connecting vacuum pump with gages, regulators, automatic-pilot and gyro instruments. Lines on pressure side of vacuum pump through oil separator to discharge port.
Vent:		
Fuel	Fuel	Fuel tank vents
Lubricating Oil	Lubriection	Crankcase vent, oil tank vents.

DATE ISSUED	DATE REVISED	WRITTEN	APPROVED	CHIEF INSPECTOR	CHIEF ENGINEER
3-21-42	10-4-52	Newman 10-10-52	[signature]	Newman 10-10-52	[signature]

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(Inactive for Future Design, September 30, 1952)

3.5 Identification Table.- (Continued)

TYPE OF LINES	IDENTIFICATION	DETAIL APPLICATION
Lavatory	None required	Lavatory vent tubes.
Battery	None required	Battery drain and vent.

Approved:

Jane M. Hite
Air Force Quality Control Representative

DATE ISSUE	DATE REVISED	WRITER	APPROVED	CHIEF INSPECTOR	CHIEF ENGINEER
3-21-41	10-1-52	Newman 10-10-52	H. K. Jarrett	Newman 10-10-52	

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