



New connection on: : 20-11-2020 : 07:58:43 - Last disconnection on: :
20-11-2020 : 07:58:36

V 4.0.0.44803(LP,U,linux) (Rev:43856 2017-04-27 09:03:29 +0200#{D201820}) (RPM D201820)

Welcome to EPOQUE Rebuild under the Production Environment

[EPODOC: SS 28] APU and (Airplane+ or Aircraft+ or Helicopter+) and Touch+ and Sens+ and Voltage+ and Current+ and Temperature+ and Remote+ and (Test+ or Perform+ or Monitor+)

Results in EPODOC 0

[SS 29] (Airplane+ or Aircraft+ or Helicopter+)

Results in EPODOC 269.378

[SS 30] (Test+ or Perform+ or Monitor+)

Results in EPODOC 8.177.154

[SS 31] 29 and 30

Results in EPODOC 34.430

[SS 32] APU and touch+ and sens+ and voltage+ and current+

Results in EPODOC 0

[SS 33] touch+ and sens+ and voltage+ and current+

Results in EPODOC 1.696

[SS 34] temperature+ and remote+ current+

Results in EPODOC 0

EPODOC: No term found in index 'BI' for the truncation 'REMOTE+ CURRENT+'. WARNING(401)

[SS 35] temperature+ and remote+ and current+

Results in EPODOC 4.491

[SS 36] 31 and 33 and 34

Results in EPODOC 0

Results in EPODOC 2

PN - [CN108490924](#) A 20180904

PR - CN201810516218 20180525

AP - [CN201810516218](#) 20180525

DT - 1

CI - G05B23/0213 (CN)

PA - WUHU SHUANGYI AERO TECH CO LTD

T1 - Civil **aircraft** thermostat **testing** device and control method thereof

AB

- The invention relates to a civil **aircraft** thermostat **testing** device and a control method thereof. The civil **aircraft** thermostat **testing** device comprises a power module, a pressure **sensor**, an analog input module, a PLC control module, a **touch** screen, a relay and a **voltage** regulation module, wherein the power module is connected with the PLC control module and provides a direct **current** power supply, the pressure **sensor** is built in a civil **aircraft** thermostat and is connected with the analog input module by virtue of a plug, the analog input module is connected with the PLC control module and used for inputting analog data, the PLC control module is connected with the **touch** screen and used for displaying an operation interface and inputting control parameters, and the relay is connected with the PLC control module and used for controlling on-off of a specific circuit. The civil **aircraft** thermostat **testing** device provided by the invention can automatically detect pressure change and control start and stop of the civil **aircraft** thermostat, and efficiency is high; the **touch** screen is used, and operation is convenient; and the output of a stabilized **voltage** source can be adjusted, and the test tasks of multiple **aircraft** types can be adapted.

PN - **GB1427203** A 19760310

PR - US19720294553 19721003

AP - GB19730041757 19730905

DT - **

CCI - B60T8/1703 ; B64C25/426

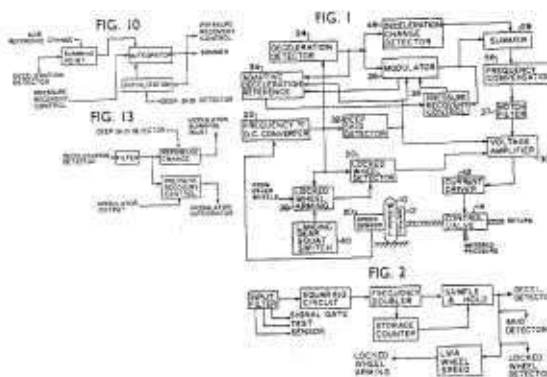
CI - B60T8/1703 (EP)

- B64C25/426 (EP)

PA - GOODYEAR TIRE & RUBBER

TI - BRAKE CONTROL SYSTEM

AB - 1427203 Anti skid control
GOODYEAR TIRE & RUBBER CO 5
Sept 1973 [3 Oct 1972] 41757/73
Heading F2F In an anti skid
control system, a direct **current**
signal proportional in **voltage** to



wheel velocity is fed from a **sensor** 20 to a minor control loop to release brake pressure in incipient skid and initialize a modulator 26 via an initialization circuit to reapply pressure to a level determined by the severity of a skid and to a major control loop for applying to the modulator a variable deceleration reference signal indicative of a desired rate of deceleration and a signal representing an actual rate, the modulator controlling pressure according to the signals, the desired signal being a function of the actual signal and being initialized by the minor loop to a level determined by the skid severity of the first skid, a deceleration change detector being connected to the major loop and applying to a **current** controlled brake valve 14 signals indicative of the rate of change of wheel deceleration. A wheel mounted generator 20 supplies a frequency to D.C. converter 22 comprising, Fig. 2, an input filter, Fig. 3, not shown, for attenuating spurious signals and allowing **test** signals therein, a circuit, Fig. 4, not shown, for transforming the signal into a square waveform, having an amplifier acting as a Schmitt trigger, a circuit, Fig. 5, not shown, for doubling the frequency of the signal for improved resolution, a circuit, Fig. 6, not shown, for converting the signal to sawtooth waveform superimposed on a D.C. level proportional to the frequency input, formed by controlled decay of a capacitor; a sample and hold circuit, Fig. 7, not shown, eliminates the sawtooth waveform, using a controlled field effect transistor and issues the resultant signal to a

deceleration detector circuit 24 of the major control loop, to a deep skid detector circuit 32 of the minor control loop, and to an auxiliary control loop. The minor control loop provides an on-off control for deep incipient skids only when the major control loop cannot cope with rapid changes, e.g. during the first braking cycle or when the friction coefficient is low. When such skidding occurs, the converter signal discharges a capacitor, Fig. 8, not shown, through resistors to produce an input greater than a threshold value at an amplifier to actuate a field effect transistor providing a full brake release signal for the valve 14. The auxiliary loop prevents brake application prior to **touch-down** for an **aircraft** and has a circuit 38 receiving converter signals of all wheels and from a switch which prior to **touch-down** issues a predetermined wheel speed signal so that a locked wheel detector circuit 50, which as yet does not receive a converter signal, receives an output for the circuit 38 to issue a brake release signal. The detector circuit 50 has a speed threshold which is exceeded upon wheel to ground contact to remove the release signal; the switch 40 is opened by landing gear suspension compression, but a speed signal is issued by the converter 22 for brake release if the wheel speed drops more than a predetermined amount below the **aircraft** speed. The major control loop provides the proportional brake control, the converter signal being differentiated by the deceleration detector circuit 24 whose output passes to the modulator 26, Fig. 10, comparing it with the reference signal from

an adaptive deceleration reference circuit 34, Fig. 13, which has an input from the detector circuit 24; this signal passes through a quadratic lag filter, Fig. 14, not shown, to remove transient signals, through a reference change circuit, Fig. 15, not shown, which rectifies and filters the signal by a controlled capacitor, this circuit also receiving a signal from the deep skid detector 32. The signal then passes to the modulator 26 via a pressure recovery control circuit 35, Fig. 16, not shown, which is actuated only if the modulator level increases due to frictional coefficient increase to allow brake pressure restoration. From the modulator comparison at a summing point, Fig. 11, not shown, comprising a resistor junction, the error signal passes to an integrating circuit with an amplifier and a field effect transistor. An initialization circuit, Fig. 12, not shown, is actuated by a deep skid signal from the circuit 32 producing a controlled charging of a capacitor to a comparator in comparison with the integrating circuit output. The resultant signal is amplified and applied to the transistor of the integrating circuit to increase the signal for brake release if a deep skid occurs. A summing circuit 28, Fig. 18, not shown, adds the modulator output to a signal from a deceleration change detector circuit 46, Fig. 17, not shown, each signal having a different gain factor. The summing circuit has an amplifier with a feedback loop so that the gain varies to avoid the signal appearing in the valve deadband range; the output passes through a frequency compensation circuit 56 to avoid poor frequency

response and a notch filter to avoid valve signal frequency from impinging on the natural frequency of the **aircraft** landing gear, the filter comprising a first amplifier, Fig. 20, not shown, a "T" filter of capacitors and resistors and a second amplifier with a feedback to the first amplifier.

[SS 38] 31 and 34

Results in EPODOC 0

[SS 39]