JIG Joint Inspection Group

Operations Bulletin

Bulletin No. 38 **January 2011**

JIG Aircraft Fuelling Data Sheets

Aircraft Fuelling Data Sheets provide a wealth of important information on the fuelling requirements for the main civil aircraft and helicopters currently in operation. They contain details about fuel tank capacities, fuelling rates and the aircraft fuelling control panel. They also show the location of fuelling points (including heights and clearances), bonding lugs and tank vents.

Air BP has recently revised and updated its entire suite of Aircraft Fuelling Data Sheets and is now making them available through JIG to the wider industry. An example of a data sheet is shown on page 2 of this bulletin.

Folders bearing the JIG logo have now been produced and the first round of orders will be dispatched shortly. Further copies are available for purchase on line from the distributor TFS (The Fulfilment Store) at

https://ww3.access-24.co.uk/stock.aspx?Public=PublicAP

or, datasheets@tfstore.co.uk. A link to the TFS website will also be available shortly from the home page of the JIG website (www.jointinspectiongroup.org).

In due course, additional or revised Data Sheets will be developed. Each time a new data sheet is issued, a revised contents page will also be prepared to facilitate document control. TFS will be in contact with everyone who has purchased Data Sheets to advise them when new sheets are available.

The Aircraft Fuelling Data Sheets can be despatched in bulk to your head office, as smaller batches to be sent to regional offices, or mailed directly to airport fuelling locations.

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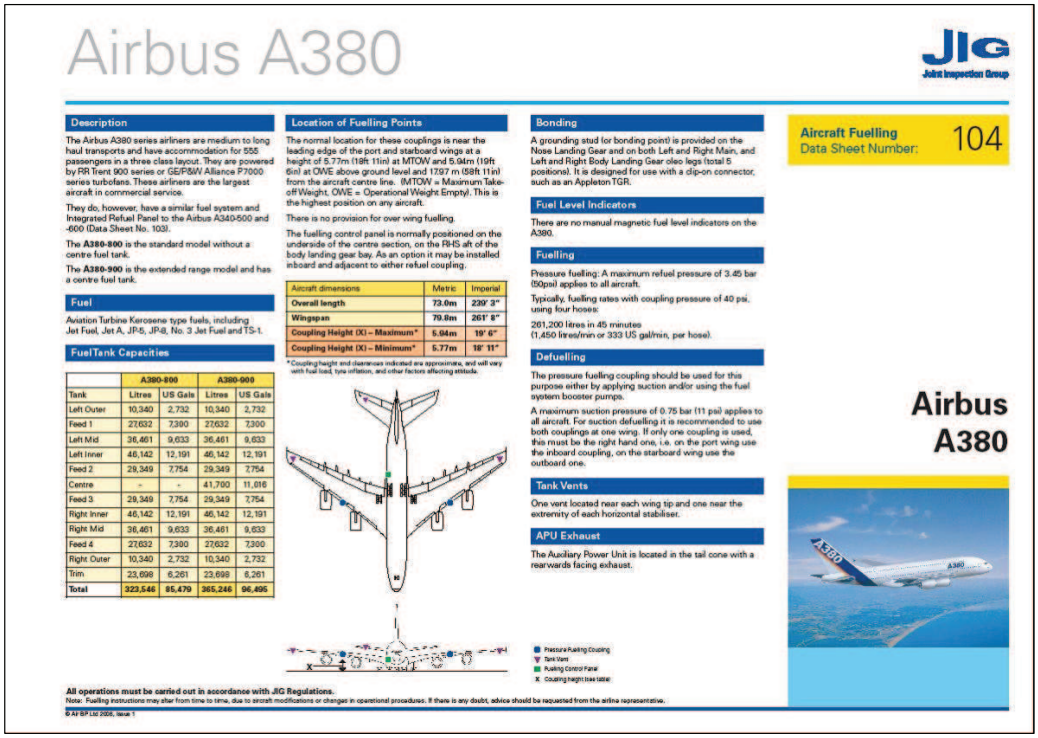
Example Data Sheet for Airbus A380



Airbus A380

JIG Joint Inspection Group

Aircraft Fuelling Data Sheet Number: **104**

Description

The Airbus A380 series airliners are medium to long haul transports and have accommodation for 555 passengers in a three class layout. They are powered by RR Trent 900 series or GE/P&W Alliance P7000 series turbofans. These airliners are the largest aircraft in commercial service.

They do, however, have a similar fuel system and Integrated Refuel Panel to the Airbus A340-500 and -600 (Data Sheet No. 103).

The **A380-800** is the standard model without a centre fuel tank.

The **A380-900** is the extended range model and has a centre fuel tank.

Fuel

Aviation Turbine Kerosene type fuels, including Jet Fuel, Jet A, JP-5, JP-8, No. 3 Jet Fuel and TS-1.

Fuel Tank Capacities

	A380-800		A380-900	
Tank	Litres	US Gals	Litres	US Gals
Left Outer	10,340	2,732	10,340	2,732
Feed 1	27,632	7,300	27,632	7,300
Left Mid	36,461	9,633	36,461	9,633
Left Inner	46,142	12,191	46,142	12,191
Feed 2	29,349	7,754	29,349	7,754
Centre	-	-	41,700	11,016
Feed 3	29,349	7,754	29,349	7,754
Right Inner	46,142	12,191	46,142	12,191
Right Mid	36,461	9,633	36,461	9,633
Feed 4	27,632	7,300	27,632	7,300
Right Outer	10,340	2,732	10,340	2,732
Trim	23,698	6,261	23,698	6,261
Total	**323,546**	**85,479**	**365,246**	**96,495**

Location of Fuelling Points

The normal location for these couplings is near the leading edge of the port and starboard wings at a height of 5.77m (18ft 11in) at MTOW and 5.94m (19ft 6in) at OWE above ground level and 17.97 m (58ft 11in) from the aircraft centre line. (MTOW = Maximum Take-off Weight, OWE = Operational Weight Empty). This is the highest position on any aircraft.

There is no provision for over wing fuelling.

The fuelling control panel is normally positioned on the underside of the centre section, on the RHS aft of the body landing gear bay. As an option it may be installed inboard and adjacent to either refuel coupling.

Aircraft dimensions	Metric	Imperial
Overall length	**73.0m**	**239' 3"**
Wingspan	**79.8m**	**261' 8"**
Coupling Height (X) – Maximum*	**5.94m**	**19' 6"**
Coupling Height (X) – Minimum*	**5.77m**	**18' 11"**

* Coupling height and clearances indicated are approximate, and will vary with fuel load, tyre inflation, and other factors affecting attitude.

Pressure Fuelling Coupling
Tank Vent
Fuelling Control Panel
X Coupling height (see table)

Bonding

A grounding stud (or bonding point) is provided on the Nose Landing Gear and on both Left and Right Main, and Left and Right Body Landing Gear oleo legs (total 5 positions). It is designed for use with a clip-on connector, such as an Appleton TGR.

Fuel Level Indicators

There are no manual magnetic fuel level indicators on the A380.

Fuelling

Pressure fuelling: A maximum refuel pressure of 3.45 bar (50psi) applies to all aircraft.

Typically, fuelling rates with coupling pressure of 40 psi, using four hoses:

261,200 litres in 45 minutes
(1,450 litres/min or 333 US gal/min, per hose).

Defuelling

The pressure fuelling coupling should be used for this purpose either by applying suction and/or using the fuel system booster pumps.

A maximum suction pressure of 0.75 bar (11 psi) applies to all aircraft. For suction defuelling it is recommended to use both couplings at one wing. If only one coupling is used, this must be the right hand one, i.e. on the port wing use the inboard coupling, on the starboard wing use the outboard one.

Tank Vents

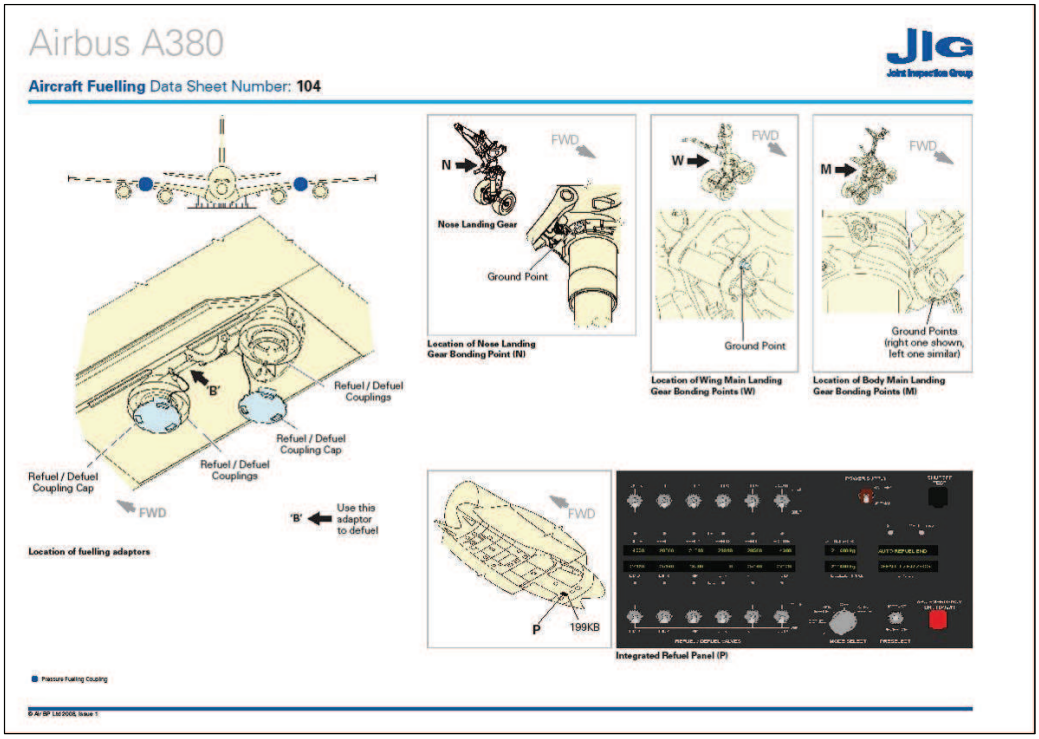
One vent located near each wing tip and one near the extremity of each horizontal stabiliser.

APU Exhaust

The Auxiliary Power Unit is located in the tail cone with a rearwards facing exhaust.

Airbus A380

All operations must be carried out in accordance with JIG Regulations.
Note: Fuelling instructions may alter from time to time, due to aircraft modifications or changes in operational procedures. If there is any doubt, advice should be requested from the airline representative.



Airbus A380

JIG Joint Inspection Group

Aircraft Fuelling Data Sheet Number: **104**

Location of fuelling adaptors

Location of Nose Landing Gear Bonding Point (N)

Location of Wing Main Landing Gear Bonding Points (W)

Location of Body Main Landing Gear Bonding Points (M)

Integrated Refuel Panel (P)

Pressure Fuelling Coupling