

ACC

10000/135/396

10000/135/396

BREDA 308
SEPT. 1945-DEC. 1946

BRED A 308

10000/135/396

525	New type Aircraft -	Sep 45
527	History & Construction of San Giovanni	1945
528	Report of BRED A BZ 308	1945
538	Authority for manufacture of Fiat 218	Dec 46

AOC

Ref 4A

M1

Transferred from 30/11/46

OK as amended on instructions of S.S.O.
you and 4A/6

We spoke on the subject of the BZ 308 this morning and you were most entirely in favour of its completion.

This aircraft however will be very useful to Italian internal civil aviation and on the shorter flights can carry the maximum load of passengers. The Italian Air Ministry are interested and would like the aircraft completed but they make no promise, in fact they are not in a position to buy. I have always considered that this aircraft was the one we should have completed and flown to UK, not the S.M. 95.

If you don't favour opening up this subject with MAAC. I will scrap 4A.

4/6/46
5/11

C.T.O.

Could I have a copy of my letter to MAAC. (4A referred to in M1) filed in this file.

15/7/46

1.

S.S.O. End 9A for information. I see no point in
the C.T.O. having an Air Staff file on this same subject in addition to
the D.D. 450/10/10 (which you have good reason to
S.I.O. print. It is a Reg. file) & unless you have good reason to
retain in this Staff file, I suggest that it be scrapped.

W.S.
D.D.

12/10.

2.

DIRECTOR W.S. 16/10

Ref M1
where aircraft B.Z. 3008 is still in the construction
stage there is little necessity for an Air Staff
file.

Originally all correspondence was on 36/4/44/AIR
under a short time ago when the C.T.O. opened
824/12/Eng. and transferred envelope of a technical
nature.

Since swap the file as you wish that the
air staff will undoubtedly be involved in 534

your envelope 9A is approved.

W.S. 15/10/46

13A

From : AIR FORCES SUB COMMISSION - A.C. ROME
To : ITALIAN AIR MINISTRY ROME
AIR FORCES SUB COMMISSION MILAN
Date : 3rd December 1946
Ref. : AFSC/824/12/ENG.

AIRCRAFT CONSTRUCTION. -

The construction of a FIAT 218 prototype is authorized.

Also construction of a BREDA 308 prototype is authorized with a proviso that as this aircraft is of interest to the Allies it be made available for tests if required after completion of flying tests in Italy.

H. Thompson
H. THOMPSON, NG. CDR.
for AIR VICE MARSHALL
DIRECTOR
AIR FORCES SUB COMMISSION.

538

Su 12th

KBS/12.

JLM
6/12

Ji/12

1217
From :- Mediterranean Allied Air Committee Secretariat.

To :- Air Forces Sub-Commission, Allied Commission, Rome.

Date :- 25th November, 1946.

Ref :- MEDAF/4215/AFALS.

Breda-Zappata Aircraft - 12.308.
Fiat G.218 Aircraft.

Reference is made to your AFS/824/12/ENG. dated
6th November, 1946.

2. Permission is granted for the construction of
these prototypes under the conditions mentioned in your
letter.

S. J. R. Hamilton
(S. J. R. HAMILTON)
Wing Commander

537

Secretary to The
MEDITERRANEAN ALLIED AIR COMMITTEE.

920 21/11
24/12/46
Cdr Banta & P. W. Wilson (BEAC) informed verbally.
Su 130
KB 5/12
717
6/12

From:- Air Forces Sub-Commission, Allied Commission, RAE.
 To :- Mediterranean Allied Air Committee Secretariat.
 Copy to: A.S.A. Italy, C.M.P.
 B.S.A. Representative, RAE.
 Ref :- MSC/CA/12/100.
 Date:- 6th November, 1946.

SECRET - AIRCRAFT - B.S. 308.
 SECRET - G. 218 AIRCRAFT.

Reference your letter MSC/CA/12/100, dated 31st October, 1946, requesting authority for the Italians to construct the prototype B.S. 308 and the prototype G. 218.

2. arising from our conversation (A.S.A.C. - RAE. Representatives) on 5th November, 1946 in Rome, it is requested that you will favourably reconsider permission being granted for the construction of these prototypes on the grounds:-

- (i) that the B.S. 308 is of interest to both British and American Design Authorities. This aircraft being a large aircraft may be considered to be unsuitable for civil airlines within Italy, though no doubt it would be used on those lines specially between Milan and Rome. Nevertheless it is suggested that your authority be granted with the proviso that if required for test by the British or American authorities, it will be made available as soon as it has passed its flying tests in Italy.
- (ii) The G. 218 is of a suitable size for civil airlines within Italy.

Copy at 3A
on 22/4/47
gjm
1/11
my 2/11
Copy to Mac
forwarded to Jld's Hamilton
personally after 1/11

ALS
 L.A. HENRY,
 AIR VICE-MARSHAL,
 DEPUTY 536
 AIR FORCES SUB-COMMISSION.

10A

From:- Mediterranean Allied Air Committee Secretariat.
To :- Air Forces Sub-Commission, Allied Commission, Rome.
Date:- 31st October, 1946.
Ref :- MAAC/4215/AFALS.

BREDA - ZAPPATA AIRCRAFT - B2.308
FIAT G.218 AIRCRAFT.

Reference is made to your letters AFSC/824/12/ENG dated 12th October, and AFSC/824/19/ENG dated 15th October, 1946:

— 1A on that file

2. Until a reply has been received from the Chief Commissioner to the Chief of Staff's letter dated 6th April, 1946 on the Establishment of Interhel Civil Air Lines, permission cannot be granted for the construction of these prototypes.

Copy of this enclosure
at 2.15 on 8/24/19.

See 11/19/46
S-E

(S.J.B. HAMILTON)
Wing Commander
Secretary to The
MEDITERRANEAN ALLIED AIR COMMITTEE

535

824/12/ENG

See 11A
JEB
6/11

9A

From:- Air Forces Sub-Commission, Allied Commission, Rome.
 To :- Mediterranean Allied Air Committee Secretariat,
 c/o. Air Headquarters (Rear), Italy.
 Copy to Representative B.E.A., Piazza S. Bernardo, Rome.
 Date:- 12th October, 1946.
 Ref :- AFAC/12/12/20.

BREDA - ZAPATA AIRCRAFT - BZ. 308.

Reference your letter MAAC/4215/AFAC, dated 12th June, 1946, our letters AFAC/36/1/AFR, dated 4th June, 1946 and AFAC/36/2/2/AFR, dated 22nd October, 1945 give the background of the construction of the above mentioned aircraft and reasons for applying for authority for the firm to complete the prototype. In accordance with your instructions no work is being carried out on this aircraft, but it is requested that favourable consideration may be given to permit the Breda Company to complete one prototype.

2. Quite recently a deputation of British European Airways (represented by Air Commodore Whitney Straight and Commander Wolfson) and the Ministry of Supply (Mr. Musgrave) visited the Breda firm in addition to Fiat's and Savoia Marchetti. These representatives have asked me to obtain authority for completion of the prototype BZ.308 on the grounds that it is by far the most modern type of aircraft being built or contemplated in Italy and that it is well up to international and modern standards. Furthermore B.E.A. has a vested interest in this aircraft and is seriously contemplating its use by its B.E.A./Italian Company, A.I.I. M.O.S. will be taking action in England to release on loan to the Italians four Centaurus engines for installation in this aircraft.

3. For your information B.E.A. are also interested in the S.M.95 and the Fiat G.218 which last is still on the drawing board. All these aircraft would be fitted with British engines, probably Hercules. Permission to construct the G.218 is being requested from you in another letter and is mentioned here because it is on a lower priority than the BZ.308, the construction of which is considered urgent by B.E.A.

12/10/46
JLM
16/10
 I. R. BODLEY, 534
 AIR VICE MARSHAL,
 DIRECTOR,
 AIR FORCES SUB-COMMISSION.

From: Air Forces Sub-Commission, A.C., No.

To : Italian Air Ministry.

Date: 24th June 1946.

Ref : AFSC/824/12/Eng.

BR DA-ZAPPATA AIRCRAFT PZ 308.

Herewith a copy of Mediterranean Allied Air Committee Secretariat letter on the above mentioned subject.

2. It is the intention of this Sub-Commission to request permission to complete this aircraft, when the Combined Chiefs of Staff have given their ruling on the subject matter of para 6 of MAAC letter.

for,

H. Thompson
H. THOMPSON WO/CDR.
AIR VICE MARSHAL,
DIRECTOR,
AIR FORCES SUB-COMMISSION.

Encl. 1

53

From: Mediterranean Allied Air Committee Secretariat.

To: Air Forces Sub-Commission, Allied Commission, Rome.

Date: 12th June, 1946.

Ref: MAC/215/AFALS.

Please refer to your AFSC/36/1/2/AIR dated 4th June, 1946.

2. It is desired to point out that no approval in principle has been given for the manufacture of non-combat type aircraft by the Italians up to the present as stated in your above quoted letter. This authority still lies within the competence of the Supreme Allied Commander through his Air Advisors.

3. Thus, requests from the Air Forces Sub-Commission for authority for the Italians to build certain types of civil aircraft have, from time to time been granted, provided a sufficiently good case has been put up.

4. In the present instance it is not considered that a 55 passenger BRMA 308 would serve any useful purpose at the moment, in view of the fact that authority has recently been given for the construction of 6 S.M. 95 aircraft.

5. At a later date when the Italians have submitted their overall plan for Civil Aviation, as requested by the Combined Chiefs of Staff, it is requested that this matter be again brought forward for further consideration.

Maxwell Fisher.

(MAXWELL FISHER)
Wing Commander
Secretary to the
MEDITERRANEAN ALLIED AIR COMMITTEE

532

17/6 H.860
A.B.
ORDERLY ROOM
36/4/Air.

Seen by HOC on
20/6 in conjunction
with file
36/4/Air

AOC.

no luck

17/6

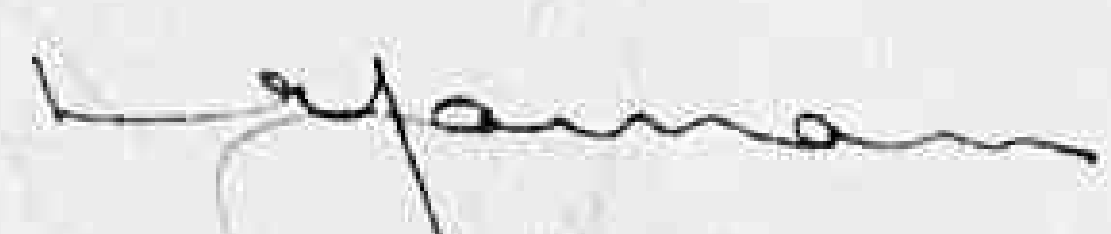
6A

From : Air Forces Sub Commission, A.C., Rome.
To : Mediterranean Allied Air Committee Secretariat,
A.R.Q. Italy.
Date : 4th June, 1946.
Ref : AFSC/36/1/2/Air.

BREDA - ZAPPATA AIRCRAFT - BZ 308

With reference to this Headquarters letter AFSC/36/2/2/Air dated 22nd October 1945 it is requested now that permission has been given for the establishment of Internal Civil Air Lines in Italy and approval in principle to the manufacture of non combat type aircraft by the Italians, the Breda firm in Milan be authorised to complete the Breda BZ 308 on which work is at present forcibly suspended.

2. This all metal aircraft, specifications of which are already at your Headquarters, is of modern design and requires little material for its completion.
3. It is technically and aerodynamically an interesting aircraft and, when completed, its flight trials should be supervised by the Allies if it is not required for an inspection in the United Kingdom or the United States.
4. The design details are considerably in advance of those of the Savoia Marchetti 95 which was completed and flown to England and as its stressed skin construction and internal lay out could not be used for any other purpose but passengers and freight carrying, it is recommended that the final assembly, fitting of engines and flight trials be authorised.


L.E. JARMAN, G/O,
for Air Vice-Marshal,
Director,
Air Forces Sub Commission.

531

Copy to A.F.S.C., Milan (for information).

From : Air Forces Sub Commission, Rome.
To : Air Forces Sub Commission, Milan.
Date : 1st February, 1946.
Ref : AFSC/56/1/2/Air.

BREDA - ZAPPATA AIRCRAFT - BE 308

Reference is made to your letter AFSC/56/39/Air dated 1st January 1946 (not to Italian Air Ministry).

2. Authority is hereby given for the Breda firm to carry out the minimum amount of work on the above mentioned aircraft required to strengthen it sufficiently for movement from Sesto San Giovanni to Brema.

h n B

W. M. BODEN, W/Cdr,
Air Vice-Marshal,
Director,
Air Forces Sub-Commission.

530

Copy to : Italian Air Ministry.

2A

From : Air Forces Sub Commission, Milan
To : Air Forces Sub Commission, Rome
Date : 18th January 1946
Ref. : APSC/M/39/Air

BREDA - ZAPPATA AIRCRAFT - BZ 302

1B

Reference is made to the report on the above aircraft
by Group Captain Jarman, dated 18th October 1945, ref. APSC/
M/39/Air.

2. In accordance with instructions issued from A.P.H.Q. all work on this aircraft has been suspended and the fuselage remains in an uncompleted state in a building near Sesto San Giovanni.
3. This building is the property of the firm Motta of Milan who within three months intend to exercise their right to re-occupy it thus necessitating the removal of the aircraft to another site.
4. It is intention of the Breda Firm to transfer the aircraft to their experimental workshop near Bresso.
5. It will be appreciated, however, that should the fuselage be moved in its present uncompleted state it would suffer such damage through distortion in transit as to become almost a complete loss.
6. For this reason the Breda Firm has applied for permission to carry out the minimum of work necessary (rivetting of remaining fuselage plates, provision of strengthening members etc) to ensure sufficient rigidity to the structure for its removal from the building cradle and movement to the new site.
7. It is strongly recommended that permission for this essential work be granted in order that all the expense and industry already put into the aircraft (which is in an advanced state of construction) be not wasted apart from the consideration of the employment and encouragement which would be given to a firm, whose ill-fortune has necessitated the standing-down of the majority of its staff.

by Group
30/Air.

54 OVERVIEW •

another site.

craft to their

a complete loss.

ensure sufficient rigidity to the structure and movement to the new site.

meinder.

ND17-AM

10

CONCLUSIONS

90C, Please write
necessary letter

36/12/2007

view of per for asking
11/11 3/11

From: Air Forces Sub-Commission, Allied Commission, Rome.
 To: Inter-Allied Air Committee Secretariat, Caserta.
 Date: 22nd October, 1945.
 Ref: APSA/36/2/2/Air.

MEMO - No. 304.

During a recent visit by Major McNaughton Wright to the ENDA firm at Milan he discovered that amongst other wartime manufacture, work was proceeding on a No. 303, sixty-five seater civil type aircraft apparently without the knowledge of any Allied authority.

2. It appears rather extraordinary that the activities of this firm were not previously known to the Allies and to this Sub-Commission in particular although it seems that the Chief Technical Officer of this Sub-Commission (Major Commander Clouston) may have had some knowledge of it early in September but he made no report as far as is known as he has now returned to the United Kingdom on release.
3. As soon as it was known that the No. 303 aircraft was under construction a signal was sent from our Milan representative to this Headquarters and in accordance with your letter MA/4215/ALP dated the 9th October, 1945, a signal was sent by this Headquarters to Milan ordering that work on the production of this aircraft was to cease immediately, although it was realised that considerable unemployment would result.
4. Further investigations have been made and the attached copy of report from the A.F.C. in Milan is forwarded for your consideration and decision as to whether or not the firm may be permitted to carry on work on the aircraft now under construction.
5. If only to provide employment for 300 technicians (see para. 4 of attached report) I recommend that authority be granted for the continued manufacture and if the aircraft will not be required to be flown to the U.K. for tests at the discretion of the Italian Air Ministry. For your information the matter has been discussed with Air Comodoro Titani (recently C.M.S.O., RAF 189/42) who has an open mind about this aeroplane it only because the ENDA firm has a reputation of never having yet produced a really good aeroplane.
6. In accordance with existing instructions, this matter is being referred to the Chief Commissioner of the Allied Commission together with the whole policy as regards Italian firms being allowed to construct further aircraft in limited quantities.

during a recent visit by Major Delighton Wright to the factory at Milan he discovered that amongst other warlike manufacture, work was proceeding on a B. 30, thirty-five seater civil type aircraft apparently without the knowledge or any Allied authority.

2. It appears rather extraordinary that the activities of this firm were not previously known to the Allied and to this sub-commission in particular although it seems that the Chief Technical Officer of this sub-commission (Mr. Commander Gladstone) may have had some knowledge of it early in October but he made no report as far as is known as he has now returned to the United Kingdom on release.
3. It seems as it was known that the B. 30 aircraft was under construction a signal was sent from our Milan representative to this Headquarters and in accordance with your letter 22/10/45 dated the 9th October, 1945, a signal was sent by this Headquarters to Milan ordering that work on the production of this aircraft was to cease immediately, although it was realised that considerable unemployment would result.
4. Further investigations have been made and the attached copy of report from the A. 9. 1. in Milan is forwarded for your consideration and decision as to whether or not the firm may be permitted to carry on work on the aircraft now under construction.
5. If only to provide employment for 300 technicians (see para. 4 of attached report) I recommend that authority be granted for the continued manufacture and if the aircraft will not be required to be flown to the U.S. for tests at the discretion of the Italian Air Ministry. For your information the matter has been discussed with Mr. Giuseppe Fittus (recently C.I.C.O., MAP 1877/28) who has an open mind about this aeroplane if only because the firm has a reputation of never having yet produced a really good aeroplane.
6. In accordance with existing instructions, this matter is being referred to the Chief Commissioner of the Allied Commission together with the whole policy as regards Italian firms being allowed to construct further aircraft in limited quantities.
7. Pending a recommendation by the Chief Commissioner on the broader aspect of the continued construction of this particular aircraft, it is requested that you will consider the technical and military aspect so as to save time because a quick decision is desirable in order to avoid distress and get the employees who are now probably unemployed.

J. S. JONES,
AIR VICE MARSHAL,
ALLIED COMMISSION.

Completed by [signature]
26/10/45

BEST COPY POSSIBLE

38
 1. Historical - The Roma Works have during the last 20 years designed and produced many aircraft for military and commercial purposes.

Reference: ARAC/5/32/147.

12th October, 1945.

Appendices:

- Appendix "A" - Intelligence Office Communication.
- Appendix "B" - RA.308 Specifications. (only copy to RAAC)
- Appendix "C" - RA.308 detailed description.
- Appendix "D" - Photographs of plans. (only copy to RAAC)

RAAC - B.3. 308.

Introduction.

1. Historical. The Roma Works have during the last 20 years designed and produced many aircraft for military and commercial purposes.

Their most recent undertaking, the four engined, commercial RA.308 has been developed since 1942 following the design and under the direction of Engineer Saffari who is well known in Italian aviation circles for his successful design of a four engined Caproni Condorino.

2. Technical. Points which influenced the designer were a range of 2,000 miles, a speed of over 250 mph, the ability to carry a minimum of 40 passengers or for commercial operation of 21 passengers with a considerable freight load, a tricycle undercarriage, the maintenance of all essential working parts while airborne and an engine output of 1700 hp per engine with four engines.

Constructional Progress.

1. The aircraft was found, after several false trails which may have been due to faulty interpretation, at a factory to the north of Sesto San Giovanni, where there were over 500 technicians engaged. The progress of work on 11.10.45 was as follows:

Fuselage. All forward and streamliners complete. stressed skin construction 80% complete.

Cockpit. Instrument panel under construction. Controls being static tested.

Centre line assembly. This unit, which mounts the four engines, houses the control tanks and is stressed to take the undercarriage members, is complete with the exception of the leading edge fairings.

527

RA.308 complete, designed for eight engines

785017

Introduction

1. Notified. You were notified by letter dated 10/19/87 regarding your application for funding. The information was supplied by your former employer, who stated that you were "not eligible".

[illegible]

Constatamentul 20.12.2018.

1. The aircraft was found, after several false trails which may have been due to faulty interrogating, at a factory to the north of PHUO CAY CITY, VIET, where there were over 500 technicians engaged. The progress of work on 11-18-45 was as follows:

Progress. All former and intermediate students, including those who were not present, have been contacted. 80% complete.

527

Cockpit. Instrument panel under construction. Controls being static tested.

Centre air assembly. This unit, which mounts the four engines, houses the petrol tanks and is stressed to take the undercarriage members, is complete with the reception of the landing oleo struts.

Maid Mowlana. Injury complete. Hospitalized for flight cyclone.
He has as stated to the Baltimore.

ation.

OTHER TIME - CRITICAL AND NOT BOTH
ANY CONSIDERATION TO BE GIVEN

October 27th.

© 2004 Blackwell Publishing Ltd, *Journal of Internal Medicine* 255: 103–110

Summary.

4. Industrial Cooperation. I reported details of the aircraft to Colonel Hancock who confirmed that no sanctions had been given by A.S.C. for the construction of this aircraft; he agreed that if you are subdividing the aircraft into this problem but stressed the need of avoiding unnecessary unemployment and the consequent labor unrest.

5. Industrial Subordination. Major Nicholson visited the factory to see the original information on this aircraft and the factory ~~at~~ confirmed that the working were skilled technicians in a technical construction whom it would be difficult to absorb elsewhere quickly and that the material was already out, drilled and treated and could only be used again with considerable waste.

6. No. 2 Industrial Subordination. General Nicholson was informed and shown a copy of my original report No. 10 dated 14th October, 1941.

7. Trade Representatives. A conference was arranged with the Italian firm for 14th October, and Engineer Langford and Engineer Latta, a director of the company attended.

They were cooperative and stated that they would close down the works. They had no plans for their workmen but raised the question of whether they would have to pay wages for workmen who were deprived of work by an Allied order.

The materials were prepared before the Italian material was hidden until after the liberation; there is only sufficient for one aircraft. Work commenced as soon as World War II was free and had continued until the present date.

Engineer Langford had approached Sir Commander Gladstone in July for assistance and Allied Cooperation and had asked for Col. Langford to speak to the Commander Gladstone in Rome about the possibility of obtaining Wright Cyclone engines. A copy of an intelligence report from I.S.S. sources (Appendix "A") confirms this.

Engineer Langford has supplied a detailed description of the aircraft - Appendix "B", a detailed description - Appendix "C" and photostatic copies of plans - Appendix "D".

A.S.C. Action.

8. The Italian representatives were informed of the 524th civil aviation and agreed to close down the works; they had no plans, at short notice, for alternative reemployment and were given a verbal grace on this account.

They asked that their case should be submitted to the European market, and to give their aircraft technicians work. The design and manufacture stages were over and it was only a matter of time.

10. On 6 October 1945, General Hordeman was informed and
discussed the situation with Hordeman. 100 dated 11th October, 1945.

[illegible]

The letter was received by the Department of Justice
 on 10/10/50. The letter was received by the Department of
 Justice on 10/10/50. The letter was received by the
 Department of Justice on 10/10/50. The letter was
 received by the Department of Justice on 10/10/50.

6.7.50. Solution:

3. The above representatives were informed of the civil aviation and agreed to close down the work; they had no plans, at short notice, for alternative employment and were given a week's grace on this account.

Succession.

6. It is recommended that the film should accompany the aircraft and hand it over to the pilot for flight trials on the following grounds:

(a) It will provide employment.
(b) The material is available and only needs assembly.
(c) The firms have made attempts to interest the Allies.
(d) The aircraft is aerodynamically and technically an
(e) improvement on existing.

It is true - and for good reason - that the
be necessary to provide the right type of similar

L. N. Z. 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 25

CONF

APPENDIX "A"

15th September, 1945

R.A. Air Staff

"I" Office

Milan Nucleus.

To: - R.A. Air Staff

"I" Office

RomeSubject: Communication.

From confidential sources we have learnt of an interview between Sdr Gladstone and Ten.Col. Carl Caspari, with regard to 4 engines for 308 Aircraft. The British W/Odr maintained that it would be difficult for the moment to obtain the engines from the United States or England, and that if favourable, it would take considerable time. The same senior officer suggests that to corroborate the results the tests should be made with also 185 engines.

We point out that the Ing. Capata is desirous to have 4 American engines A/c of Wright Cyclone type. These engines are installed in Baltimore A/c. (1800 HP.)

Maggiore Carlo Gandon

APPENDIX "C"

DESCRIPTION OFDESCRIPTION AND CHARACTERISTICS OF FORD MODEL 300 AIRCRAFT

The Model 300 is a four-engine transport low-winged monoplane aircraft with a tricycle undercarriage made for commercial purposes and with every commodity for passengers, together with flying characteristics which go to make a modern passenger a/c.

The entire wing has been designed with such care that as a plane to give high efficiency in a harmonious compromise between the weight and the aerodynamic characteristics. These two characteristics together with the same aspects of high load carrying capacity, the low resistance and the high lateral stability give it a long and strong shape.

The wing is part of the central section of the main plane, where the 4 engine nacelles are installed and of 2 external wings with considerable extension, which are easily substituted when the a/c is damaged on the ground.

The petrol tanks are located in the wing. The fuselage is streamlined and of monocoque section that it guarantees the most possible comfort for the passengers and the transport of bulky goods. Divided in two parts are intercommunicated by means of a hatch and used as specified below:

The main dimensions of the a/c are as follows:

Wing span	m. 42.10 - 139 ft.
area	sq. 106.6 - 1066 sq. ft (?)
length	m. 23.800 - 111 ft.
height	m. 7.150 - 24 ft.

Wing structure and installation:

The wing is entirely metal. It has a longitudinal structure consisting of a spar positioned at 50% from the cord and of a rear artificial spar, which besides that it allows the torsional circuits, it carries the ailerons and supports the flaps. Careful study has permitted the distribution of elasticity so the elastic axis of the system practically coincides with the leading edge. The spars are made as in the rest of the a/c, of the light metal alloy and consist of two laminations riveted together and forming a double "W" structure.

The wing is also formed from ribs of the same shape, with strain fitted accordingly and attached to the wing covering which also consists of laminated metal thus forming a wing frame of high torsional rigidity.

The two external wings are linked to the central section by four dove-tailing joints which reconstruct by means of a pivot the structural continuity of the main spar. A plate bolted to the leading edge forms inside turn the continuity of the torsional structure.

An complete engine nacelle is also made of corrugated duralumin sheeting as well as the supporting where the four engine mounting adjustment bolts are fixed.

The oil radiator and oil tank are placed inside each nacelle, near the wing leading edge. The retraction apparatus and the housing for the undercarriage are both in the nacelles.

The petrol tanks are situated between the two spars. In the main plane there are 8 tanks with a total capacity of 12380 litres (3300 gallons). In the wing, very near to the central plane there are four more tanks with a total capacity of 4040 litres (1100 gallons). The total capacity of the petrol tanks is therefore 17420 litres (4700 gallons). The thickness of the wings enables an inspection passage to be incorporated from the lower part of the fuselage along the central plane of the wing, both behind the wings and in front of the forward strut with access to the engine nacelles. These inspection passages are metal floored.

An escape hatch under each engine nacelle access entry were made when the aircraft is on the ground.

The section of the fuselage in front of the engine nacelles consists of transverse and longitudinal members with a metal covering. The fuselage is divided into two floors: the lowermost is utilized in the forward section for the cabin, for the forward retracting undercarriage; in the section before the wing spar and behind the second spar for baggage.

A passage is provided along the side of the fuselage which allows the longitudinal access there is the baggage way and loading hatches.

In the upper floor of the fuselage, starting from the nose, is the pilot's cockpit with the seat and dual controls, with a complete and up-to-date complement of navigational instruments. Behind the navigator's cabin fitted with instruments regarding the engine propulsion units and those for flight on the P, then the radio cabin and finally the saloons to be used for a purpose that will be defined later.

The first saloon has a length of 3.50 metres (11 ft.) or of 6.00 metres (19 ft.) according to utilization. The second saloon has a length of 6.00 metres (19 ft.). The useful internal width is 2.90 metres (9 ft.) and the overall internal height is 2.30 metres (7 ft.).

To the side two passages follow a passage which leads to the water closets, to the luggage room, to the door and to the pantry. The main entrance is from the belly, addition made possibly by the door tricycle from.

The entrance is retractable and when pulled up the fuselage resumes its regular shape.

Behind the main entrance the fuselage has three safety hatches one to the left for the front part and two symmetrically disposed at the back. Plant for air conditioning has been provided.

52

Passenger

The construction of the a/c has been studied to serve for those distinct uses:-

a) Passengers transport (55 passengers)

In this case the first lounge is 6.70 metres (22 ft.) long. In it 30 armchairs are disposed by groups of four. With each group there is a folding table. Corresponding with each row of chairs the relative window has been provided.

In the second lounge 8.30 metres (27 ft.) long, 31 more passengers can be accommodated as for the previous lounge.

- 3 -

The more bulky luggage will be placed in the lower storey of the fuselage.

b) Mixed transport:

(32 passengers and 3000 to 4000 kg. of goods)

In this case the first lounge 8.65 metres (28 ft.) is used for the transport of bulky goods with a special loads shaft 3.65 metres (12 ft.) x 1.50 metres (5 ft.) on the roof of the fuselage, the second lounge is used as in para. a.

c) Mixed transport:

(31 passengers and 3000 to 4000 kg. of load)

Also in this case the lounge is utilized for the transport of bulky goods. It is different from b) for the length of this lounge (m. 7.75 instead of 8.65 metres (25 ft. instead of 28 ft.) so the P.T. room is smaller) and for the loading system of the goods.

With this system the fuselage has two side hatches (m. 3 (10 ft.) x 1.5 (5 ft.) craned near the roof of the fuselage.

These hatches when pulled up operate two cranes, the cable of which runs along a line.

This line, with a special switch runs along the roof of the goods room facilitating the loading.

As in the other case the back lounge is the one for the passengers.

LANDING GEAR

The aircraft is designed with a tri-cycle undercarriage. The advantage of such a construction is shown on the characteristics of the aircraft, for instance, the ease of the take off and the facility of landing, especially when there is lack of visibility, also on the loading of the goods and an entrance to the cabin, which is more easier and more comfortable.

The retraction gear for the undercarriage is hydraulically controlled. The nose wheel, once retracted fits into the body of the fuselage.

The main undercarriage retracted to the engine nacelles, leave however a small part of the wheels exposed.

In particular the forward undercarriage for reason of weight is fitted with a double coaxial wheel with a single shock-absorber.

Engine Propulsor Units

The aircraft gives its best performance if it has 4 engines of 1750 horse power (2000 horse power on take off and with a service ceiling of 3000 metres (9800 ft.).

Nevertheless even with engines of 1450 horse power (1700 horsepower on take off) and with this service ceiling the a/c still maintain satisfactory characteristics on the attached list.

0488

~~2A~~ 2A

OUTGOING SIGNAL.

From:- A.F. Sub Comm, Rome
To:- A.F. Sub Comm, Milan.

A804

131100A

30A

UNCLASSIFIED (.) REFERENCE YOUR MA 108 DATED 11TH OCTOBER INSTRUCT
BREGDA TO CEASE WORK ON FOUR ENGINEED AIRCRAFT PENDING FURTHER INSTRUCTIONS
IN ACCORDANCE WITH RECENT DIRECTIVE FROM CASENTA (.) NO ACTION WITH
CASENTA BEING TAKEN UNTIL YOUR FULL REPORT IS RECEIVED (.) SIGNED BRODIE.

MB
I.E. BRODIE,
AIR VICE MARSHAL,
AIR OFFICER COMMANDING.

PRIORITY :- IMPORTANT.

33A para 3.

DD.
C.I.O. *had file 8/10*
S 30 *had file 11/10*

LRKB. V. MEAV. 110246 F P
 FROM A F SUB COM MILAN -
 TO A F SUB COM (ROME)
 OSH GR 229 BT

AIR

NIIS/II

34A

1A

UNCLASSIFIED. 110211 OCT. MA 128
 BREDA WORKS AT BOSTO SAN GIOVANNI ARE CONSTRUCTING A FOUR ENGINED
 SIXTY-FIVE SEATER AIRCRAFT. IT IS ALL METAL, FITTED WITH
 TRYCYCLE UNDERCARRIAGE AND TECHNICALLY WORTH INSPECTING. I
 HAVE CONSULTED COLONEL HANCOCK WHO IS CHECKING TO SEE IF ANY
 AUTHORITY HAS BEEN GIVEN FOR THE WORK AND HAVE GIVEN ALL DETAILS
 TO THE INDUSTRIES SUB-COMMISSION WHO ARE INTERESTED IN THE SOURCE
 OF DURALUMIN SUPPLY. I AM ARRANGING A MEETING WITH DIRECTOR
 OF BREDA AND THE DESIGNING ENGINEER ZAPPATA AND WILL FORWARD A
 MORE COMPREHENSIVE REPORT AND IF POSSIBLE SPECIFICATION AND
 PERFORMANCE FIGURES. I RECOMMEND THAT AS THE MAJOR CONSTRUCTION
 WORK IS FINISHED, THE AIRCRAFT SHOULD BE COMPLETED AND HANDED OVER
 TO THE ALLIES FOR TRIALS.

SIGNED BY :- L E JARMAN G/C

BT
 SENT IN 3 K
 R-1843A--"J O E"--"KCK"

519



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