LAPORAN *ON THE JOB TRAINING* ATR 72-500/600
PT. BATAM AERO TECHNIC

Tanggal 1 April – 30 Juni 2024

Disusun Oleh:

PANDE GEDE KHRISNA PRATHAMA NUGRAHA
NIT. 30421020

PROGRAM STUDI DIPLOMA 3 TEKNIK PESAWAT UDARA
POLITEKNIK PENERBANGAN SURABAYA
2024

LAPORAN *ON THE JOB TRAINING* ATR 72-500/600
PT. BATAM AERO TECHNIC
Tanggal 1 April – 30 Juni 2024

Disusun Oleh:

PANDE GEDE KHRISNA PRATHAMA NUGRAHA
NIT. 30421020

PROGRAM STUDI DIPLOMA 3 TEKNIK PESAWAT UDARA
POLITEKNIK PENERBANGAN SURABAYA
2024

LEMBAR PERSETUJUAN

LAPORAN *ON THE JOB TRAINING* (OJT)

ATR 72-500/600

Oleh:

PANDE GEDE KHRISNA PRATHAMA NUGRAHA
NIT.30420042

Laporan *On The Job Training* (OJT) ini telah diterima dan disetujui untuk menjadi syarat menyelesaikan *On The Job Training* (OJT).

Disetujui Oleh:

Supervisor	**Dosen Pembimbing**
WIDI ESA MARGA	**Dr.SETYO HARIYADI,S.P.,ST,MT**
ID. 83118343	**NIP. 19790824 200912 1 001**

Mengetahui,

MANAGER HANGAR B
PT. BATAM AERO TECHNIC

LUKMAN MULYANA
ID. 63041841

LEMBAR PENGESAHAN

LAPORAN *ON THE JOB TRAINING* (OJT)
PT.BATAM AERO TECHNIC

Laporan *On the Job Training* telah dilakukan pengujian didepan Tim Penguji pada tanggal 3 bulan Juli tahun 2024 dan dinyatakan memenuhi syarat sebagai salah satu komponen penilaian *On the Job Training*

Tim Penguji:

1. Ketua : Dr. GUNAWAN SAKTI, ST, MT ……
   NIP. 19881001 200912 1 003
2. Sekertaris : BAMBANG BAGUS H., S.SIT, MM, MT ……
   NIP. 19810915 200502 1 001
3. Anggota : Dr. SETYO HARIYADI S.P., ST, MT ……
   NIP. 19790824 200912 1 001

Ketua Program Studi

Diploma 3 Teknik Pesawat Udara

NYARIS PAMBUDIYATNO, S.SiT, M.MTr
NIP. 19820525 200502 1 001

KATA PENGANTAR

Puji syukur saya panjatkan kepada Tuhan Yang Maha Esa atas berkat dan rahmat-Nya sehingga penulis dapat menyelesaikan On The Job Training (OJT) di PT Batam Aero Technic yang berlangsung dari tanggal 1 April 2024 hingga 30 Juni 2024. Penyusunan laporan OJT ini ditujukan sebagai salah satu syarat kelulusan dan sebagai evaluasi akhir untuk Program Studi Teknik Pesawat Udara di Politeknik Penerbangan Surabaya.

Tujuan dari penyusunan laporan ini adalah untuk memperdalam dan menerapkan ilmu yang telah diperoleh selama pelaksanaan On The Job Training (OJT). Selain itu, laporan ini juga bertujuan untuk menambah wawasan dan pengetahuan bagi para pembaca.

Ucapan terima kasih penulis sampaikan kepada pihak yang telah membantu selama proses penyusunan laporan *On The Job Training* (OJT) ini, kepada:

1. Bapak Ahmad Bahrawi, S.E, M.T. selaku Direktur Politeknik Penerbangan Surabaya.
2. Bapak NYARIS PAMBUDIYATNO, S.SiT, M.MTr, selaku Ketua Program Studi Diploma 3 Teknik Pesawat Udara di Politeknik Penerbangan Surabaya.
3. Bapak Lukman Mulyana selaku Manager Hanggar B di PT. *Batam Aero Technic* atas kesempatan praktik kerja lapangan yang diberikan.
4. Bapak Setyo Hariyadi SP, ST., MT. Selaku dosen pembimbing Laporan OJT.
5. Bapak Agus Sutiadi Selaku *chief* Line 11.
6. Bapak Widi Esa Warga selaku Group Leader Line 11 Group A.
7. Seluruh *Engineer* dan *Mechanic* PT. Batam Aero Technic yang sudah banyak membantu dalam pelaksanaan *On the Job Training (OJT).*
8. Seluruh dosen dan civitas akademika Prodi D3 Teknik Pesawat Udara Politeknik Penerbangan Surabaya.

Tentunya penulis menyadari laporan ini masih jauh dari kata sempurna. Atas segala kesalahan dan kata-kata yang kurang berkenan penulis. Untuk itu penulis mengharapkan kritik serta saran dari pembaca untuk membangun penulis demi karya yang lebih baik lagi kedepannya.

Batam, 6 Juni 2024

Pande Gede Khrisna Prathama Nugraha

DAFTAR ISI

Halaman

DAFTAR GAMBAR

Halaman

DAFTAR LAMPIRAN

Halaman

BAB I
PENDAHULUAN

1.1 Latar Belakang

On the Job Training (OJT) adalah salah satu bentuk dari penerapan ilmu yang diperoleh dari proses pembelajaran di Politeknik Penerbangan Surabaya. Kegiatan OJT untuk Taruna/i Teknik Penerbangan, khususnya Program Diploma 3 Teknik Pesawat Udara angkatan 7, dilaksanakan sesuai dengan kurikulum dan silabus yang disusun berdasarkan kalender akademik Politeknik Penerbangan Surabaya.

Para taruna/i yang mengikuti OJT diberikan kesempatan langsung untuk menerapkan pengetahuan dan keterampilan yang diperoleh berupa teori dan praktik di Politeknik Penerbangan Surabaya dalam lingkungan kerja yang sesungguhnya. Pemenuhan materi yang selama ini dilaksanakan di Politeknik Penerbangan Surabaya perlu didukung oleh kegiatan yang dapat memperluas wawasan taruna/i, yang dituntut untuk segera menerapkan ilmunya di dunia kerja. Hal ini menunjukkan betapa pentingnya ilmu dan praktik yang terkait langsung dengan bidang pekerjaannya. Oleh karena itu, *On the Job Training* (OJT) dianggap perlu untuk menambah wawasan dalam menerapkan ilmu yang telah diajarkan di kampus.

1.2 Maksud dan Tujuan

Adapun maksud dalam pelaksanaan OJT di Politeknik Penerbangan Surabaya adalah sebagai berikut :

1. Mempelajari langsung aktifitas di lapangan pekerjaan sesuai dengan ilmu teori maupun praktek yang didapat selama melaksanakan pembelajaran di kampus.
2. Mempersiapkan diri dalam menghadapi lingkungan kerja sebenarnya setelah menyelesaikan studinya.
3. Membangun hubungan kerja sama yang baik antara kampus Politeknik Penerbangan Surabaya dengan perusahaan atau lembaga instansi lainnya.

Tujuan OJT (*On the Job Training*) pada pendidikan Diploma 3 Teknik Pesawat Udara sebagai berikut :

1. Menciptakan lulusan yanng memiliki daya saing tinggi di lingkup nasional dan internasional serta sertifikat kompetensi sesuai standar nasional dan internasional.
2. Memahami budaya kerja dalam industri penerbangan dan membangun pengalaman nyata memasuki dunia industri penerbangan.
3. Membentuk kemampuan dalam berkomunikasi pada materi keilmuan secara lisan maupun tulisan dalam lingkungan kerja sebenarnya.

BAB II
PROFIL LOKASI OJT

2.1 Sejarah Singkat

PT. Batam Aero Technic adalah salah satu perusahaan swasta yang bergerak di bidang jasa transportasi udara, termasuk perawatan pesawat terbang. Dalam industri penerbangan nasional. Melalui Lion Air, yang mempelopori konsep penerbangan berbiaya rendah (*low cost carrier*) yang memungkinkan banyak orang menikmati transportasi udara dengan biaya terjangkau. Tidak banyak yang tahu bahwa ini adalah impian Rusdi sejak menjadi calo tiket pesawat beberapa dekade lalu.

Gambar 2.1 Hangar Batam Aero Technic

PT Batam Aero Technic (BAT) adalah anak perusahaan dari Lion Air Group yang bergerak dalam bidang *Maintenance, Repair*, dan *Overhaul* (MRO) pesawat terbang. Didirikan pada tahun 2014, BAT merupakan entitas bisnis global yang kompeten dalam perawatan, pemeliharaan, dan perbaikan pesawat udara. Fasilitas ini bertujuan untuk merawat dan memperbaiki pesawat yang dioperasikan oleh perusahaan penerbangan yang tergabung dalam Lion Air Group, termasuk Lion Air, Wings Air, Batik Air, Lion Bizjet, Malindo Air, Thai Lion Air, dan Angkasa Aviation Academy (sekolah pilot). BAT memiliki kemampuan dalam merawat berbagai tipe pesawat, termasuk Airbus 320, Boeing 737 series, Airbus A330, Hawker 800/900 XP, dan ATR 72 500/600.

Dalam operasionalnya, BAT mematuhi peraturan dan standar yang ditetapkan oleh *Civil Aviation Safety Regulations* (CASR) part 145 menetapkan aturan pelaksanaan untuk organisasi pemeliharaan yang disetujui sebagaimana sudah dipersyaratkan oleh pasal 51 undang-undang penerbangan nomor 1 tahun 2009. Sertifikat CASR part 145 pada Gambar 2.2 memastikan bahwa setiap prosedur dan layanan yang diberikan oleh BAT memenuhi standar keselamatan dan kualitas yang diakui secara internasional. BAT juga telah memperoleh berbagai sertifikasi lainnya, termasuk dari otoritas penerbangan sipil internasional, yang memungkinkan mereka melayani pesawat dari berbagai negara.

REPUBLIC OF INDONESIA
MINISTRY OF TRANSPORTATION
DIRECTORATE GENERAL OF CIVIL AVIATION

Certificate of Approval

Number : 145D – 914

This certificate is issued to : PT. BATAM TEKNIK
DBA. BATAM AERO TECHNIC

Whose business address is : Kawasan Bandar Udara Hang Nadim,
Batu Besar, Nongsa, Batam, Kepulauan Riau
INDONESIA

[illegible]ding that this organization complies in all respects with the requirements of the Civil [illegible]ation Safety Regulations relating to the establishment of an approved organization, and [illegible]owe[illegible] to operate as an :

APPROVED MAINTENANCE ORGANIZATION

With the f[illegible]lowing ratings : - Limited Airframes;
- Limited Powerplants;
- Limited Propellers;
- Limited Radio Equipment;
- Limited Accessories;
- Limited Landing Gear Components;
- Limited Non Destructive Testing and Processing;
- Limited Emergency Equipment;
- Limited Specialized Process.

This approval is not tra[illegible]bl[illegible] and shall continue until expired, unless cancelled, suspended or revoked by the Dir[illegible]Je[illegible]ral; and any major change in the basic facilities, or in the location thereof, shall i[illegible]at[illegible] be reported to the Director General.

Jakarta, 7 April 2022

DIRECTOR GENERAL OF CIVIL AVIATION

Expiry Date :
22 April 2027

NOVIE RIYANTO R.

DGCA Form No. 145-02 (Oct 2017)

Gambar 2. *2 Certificate of Approval Maintenance Organization* (Sumber : Dokumen Pribadi)

Dengan kehadirannya, Batam Aero Technic berkontribusi signifikan terhadap pengembangan industri penerbangan di Indonesia, serta menciptakan lapangan kerja bagi tenaga kerja lokal dengan keahlian khusus di bidang aviasi.

2.2 Fasilitas

Batam Aero Technic, sering dikenal sebagai BAT, melakukan kegiatan perawatan pesawat di dalam hanggar. Terdapat enam hanggar yang digunakan untuk proses perawatan, yaitu hanggar A, B, C, D, E, dan G dapat dilihat pada Gambar 2.3. PT. Batam Aero Technic adalah perusahaan swasta yang telah memenuhi persyaratan minimal standar untuk berdirinya sebuah perusahaan perawatan, sesuai dengan peraturan dalam CASR (*Civil Aviation Safety Regulation*) pada bagian 145.103 yang mengatur tentang persyaratan fasilitas dan tempat. Hal ini dibuktikan dengan kelengkapan fasilitas yang diatur dalam CASR bagian 145.103, dimana setiap hanggar dilengkapi dengan ruangan untuk menyimpan peralatan dan material. Selain itu, ada juga fasilitas tambahan yang mendukung proses perawatan pesawat, seperti kotak peralatan (*toolbox*), tangga, lemari bahan mudah terbakar (*flammable cabinets*), pencahayaan, pengendalian suhu, dan tempat penyimpanan (*store*).

Gambar 2.3 Layout Batam Aero Technic (Sumber : Batam Aero Technic Proprietory Information)

2.3 Struktur Organisasi Perusahaan

Seperti halnya suatu organisasi pada umumnya, maka PT. Batam Aero Technic juga memiliki suatu pembagian tugas dan tanggung jawab, dimana masing-masing bagian memiliki kewajiban dalam mengelola dan mengerjakan kegiatan masing-masing untuk memperoleh suatu daya guna yang tinggi, kesemuanya itu tidak dapat terlepas dari sitem manajemen.

Gambar 2.4 Struktur Organisasi Batam Aero Technic

Struktur organisasi di Batam Aero Technic (BAT) pada Gambar 2.4 disusun sesuai dengan persyaratan yang diatur CASR SUBPART D - PERSONNEL 145.151 terkait *Personnel Requirements*, dimana dalam *safety management system* (SMS) untuk mengelola keselamatan, termasuk struktur organisasi, akuntabilitas, kebijakan, dan prosedur yang diperlukan, maka perusahaan ini memiliki *accountable manager* sebagai *accountable excecutive* yang memiliki tanggung jawab penuh atas *safety management system* (SMS) organisasi dan memiliki wewenang penuh terkait sumber daya manusia, masalah keuangan utama, bertanggung jawab langsung atas pelaksanaan urusan organisasi, dan tanggung jawab akhir untuk keseluruhan masalah keselamatan.. Struktur ini dirancang untuk memastikan bahwa semua kegiatan perawatan dan perbaikan pesawat dilakukan dengan aman, efisien, dan sesuai dengan standar internasional. Berikut adalah gambaran umum struktur organisasi BAT :

1. *Accountable Manager*

Memiliki tanggung jawab utama atas kepatuhan BAT terhadap semua persyaratan peraturan yang relevan. Accountable Manager juga memastikan bahwa organisasi memiliki sumber daya yang memadai, termasuk tenaga kerja, peralatan, dan fasilitas, untuk melaksanakan kegiatan perawatan sesuai dengan standar keselamatan.

2. *Head of Quality*

Bertanggung jawab untuk memastikan bahwa sistem kualitas di BAT mematuhi persyaratan. *Head of Quality* juga bertanggung jawab untuk melakukan audit internal, pemantauan kepatuhan, dan memastikan bahwa semua prosedur dan dokumentasi terkait perawatan pesawat sesuai dengan standar yang berlaku

3. *Head of Safety*

Tugasnya adalah memimpin program keselamatan di BAT. Head of Safety bertanggung jawab untuk mengidentifikasi risiko potensial dan mengembangkan strategi untuk meminimalkan risiko tersebut.

4. *Head of Engineer*

Mengawasi semua kegiatan yang dilakuakan oleh engineer dan perawatan pesawat yang dilakukan di BAT. *Head of Engineer* bertanggung jawab untuk memastikan bahwa semua pekerjaan perawatan dilakukan sesuai dengan prosedur yang telah ditetapkan dan sesuai dengan manual perawatan.

5. *Head of Base Maintenance*

Mengelola kegiatan perawatan yang dilakukan di hanggar utama (*base maintenance*). Ini mencakup perawatan besar, modifikasi, dan *overhaul* yang memerlukan waktu dan fasilitas khusus.

6. *Head of Tools and Material Management*

Mengelola gudang dan persediaan suku cadang. *Head of Tools* and *Material Management* bertanggung jawab untuk memastikan bahwa semua suku cadang yang digunakan dalam perawatan memenuhi standar kualitas dan dilacak dengan benar.

7. Head of Maintenance Shop

Bertanggung jawab atas manajemen operasional sehari-hari dari *Maintenance Shop*, yang merupakan fasilitas khusus untuk perbaikan dan *overhaul* komponen pesawat, seperti mesin, avionik, hidrolik, dan komponen struktural lainnya.

8. Head of BM Facility Area

Mengelola dan mengawasi seluruh kegiatan perawatan yang dilakukan di fasilitas *Base Maintenance*, yang merupakan tempat dilakukannya perawatan berat (*heavy maintenance*) dan overhaul pesawat secara menyeluruh.

9. Head of TRAX Mgmt & Flight Data Support

Mengelola aspek teknis yang berkaitan dengan data perawatan pesawat, termasuk analisis teknis, modifikasi pesawat, dan pengembangan prosedur perawatan.

10. Head of HRD

Bertanggung jawab atas pelatihan teknisi dan personel lainnya untuk memastikan mereka memiliki kualifikasi dan keterampilan yang diperlukan untuk menjalankan tugas mereka sesuai dengan standar.

Struktur organisasi yang disusun ini memungkinkan Batam Aero Technic untuk menjalankan operasionalnya dengan efisien dan sesuai dengan standar keselamatan penerbangan. Setiap peran dan tanggung jawab didefinisikan dengan jelas untuk memastikan kualitas dan kepatuhan dalam setiap aspek operasional MRO.

2.4 Budaya Perusahaan

Kegiatan On the Job Training yang dilakukan oleh PT. Batam Aero Technic di bagian *Base Maintenance* dibagi menjadi beberapa unit kerja, dan setiap unit dipecah lagi menjadi dua kelompok shift kerja yaitu shift pagi dan shift siang. Shift pagi berlangsung dari pukul 08.00 WIB sampai 17.00 WIB, sedangkan shift siang berlangsung dari pukul 16.00 WIB sampai 01.00 WIB. Namun, kelompok shift pagi tidak selalu bekerja pada shift pagi dan kelompok shift siang tidak selalu bekerja pada shift siang, karena setiap minggu kelompok shift pagi bergantian dengan shift siang. Sistem kerja shift di perusahaan ini adalah 6 hari kerja dan 3 hari libur

Di perusahaan ini, hubungan antar karyawan selalu harmonis, menciptakan suasana kerja yang komunikatif, kontributif, kooperatif, dan koordinatif. Hubungan baik ini tercipta karena adanya sikap saling menghormati profesi masing-masing tanpa memandang tinggi rendahnya status pekerjaan. Karyawan wajib mematuhi tata tertib setiap kali masuk kerja, yaitu sebagai berikut:

a. Mengisi absensi (sidik jari/ kartu hadir) pada waktu masuk dan pulang bekerja.
b. Memakai tanda pengenal (ID *Card*) yang dipasang dibagian dada sebelah kanan atau digantung dan terlihat jelas.
c. Memakai pakaian seragam dinas sesuai ketentuan yang berlaku.
d. Mentaati waktu masuk kerja, waktu istirahat dan waktu pulang bekerja sesuai yang diberlakukan.
e. Memberitahu atau meminta izin kepada atasan bila ingin meninggalkan tempat kersa selama jam kerja masih berlaku.

BAB III
TINJAUAN TEORI

3.1 ATR 72-500/600

Pesawat ATR 72 adalah pesawat turboprop regional yang diproduksi oleh Perusahaan Bersama antara Aérospatiale (sekarang bagian dari Airbus) dan Aeritalia (sekarang Leonardo). Pesawat ini dirancang untuk mengangkut penumpang di rute jarak pendek hingga menengah. Ada dua varian utama dari pesawat ini, yaitu ATR 72-500 dan ATR 72-600.

Gambar 3.1 Pesawat ATR 72-600

Pesawat ATR 72, baik seri 500 maupun 600, sangat populer di kalangan maskapai penerbangan regional di seluruh dunia karena kemampuannya untuk lepas landas dan mendarat di landasan pacu yang pendek dan bandara dengan infrastruktur terbatas. Hal ini menjadikannya ideal untuk layanan penerbangan di daerah terpencil atau dengan tingkat lalu lintas udara yang rendah hingga menengah. Efisiensi bahan bakarnya yang tinggi dan biaya operasional yang rendah juga menjadi daya tarik utama bagi maskapai penerbangan. (ATR-72 Specifications Sheets, airboneops.com)

3.2 Jenis Perawatan Pesawat

Berdasarkan Organization Structural Procedure Manual (OSPM) PT. Batam Aero Technic umumnya maintenance pada pesawat terbang dibagi menjadi 2, yaitu:

a. Major maintenance merupakan salah satu bentuk perawatan atau modifikasi pada pesawat. Jenis perawatan dari major maintenance diantaranya adalah pemeriksaan terjadwal phase check, modifikasi dari pesawat atau sistem pesawat berdasarkan service bulletin, airwithiness directive, atau engineering order, special inspection yang diperlukan airline, painting, dan aircraft interior modifications.

b. Minor maintenance merupakan perawatan pesawat yang dilakukan di line maintenance work area. Jenis perawatan ini dilakukan pada pesawat tanpa merubah jadwal penerbangan. Minor maintenance meliputi daily, transit, weekly, atau preflight check tergantung pada program pemeliharaan penerbangan dari customer.

Berikut adalah berbagai jenis perawatan pesawat terbang:

1. *Transit Check*

   Inspeksi ini dilakukan setiap kali pesawat melakukan penerbangan dan transit di stasiun mana pun. Engineer atau mekanik akan memeriksa pesawat untuk memastikan tidak ada kerusakan struktural, semua sistem berfungsi dengan baik, dan layanan yang diperlukan telah dilaksanakan.

2. *Service Check*

   Inspeksi ini dilakukan sekali setiap 36 jam. Pesawat akan berhenti selama minimal 4 jam. Inspeksi ini mencakup pemeriksaan komponen, pemeriksaan visual pesawat untuk mendeteksi ketidaksesuaian, dan pemeriksaan sistem operasional.

3. *Weekly Check*

   Pemeriksaan ini dilakukan sekali dalam tujuh hari kalender setelah service check sebelumnya. Pemeriksaan ini lebih spesifik dibandingkan service check karena mencakup beberapa pemeriksaan yang tidak ada dalam service check.

4. A Check

   Pemeriksaan ini dilakukan setiap bulan atau setelah pesawat mencapai 300-650 jam terbang. *Maintenance* ini mencakup inspeksi menyeluruh terhadap sistem dan struktur pesawat, namun tidak terlalu mendalam. Jenis pemeriksaan yang dilakukan termasuk *General Visual Inspection* (GVI), Detailed Visual Inspection, penggantian komponen, pembersihan, pemeriksaan operasional, pemeriksaan fungsional, dan pelumasan.

5. B Check

   Pemeriksaan ini dilakukan setiap 6-8 bulan. Memerlukan 160-180 jam kerja, tergantung pada jenis pesawat, dan biasanya selesai dalam 1-3 hari di hangar. Jadwal pemeriksaan ini bisa digabungkan dengan A check.

6. C Check

   Pemeriksaan ini dilakukan setiap 15-18 bulan atau setelah pesawat mencapai 4000-6400 jam terbang. *Maintenance* ini komprehensif, mencakup bagian-bagian tersembunyi untuk mendeteksi kerusakan internal, dan sering kali melibatkan penggantian komponen penting seperti landing gear, mesin, dan kontrol penerbangan. Proses ini biasanya memakan waktu 2-3 minggu.

7. D Check

   Maintenance ini dilakukan setiap 6 tahun atau setelah pesawat mencapai 24.000-28.000 jam terbang. Dikenal sebagai *overhaul, maintenance* ini dapat memakan waktu hingga satu bulan.

3.3 *Swing Compass*

Swing kompas (*swinging*) adalah kegiatan mengkalibrasi kompas pesawat terbang untuk mengurangi deviasi pada berbagai titik. Proses kalibrasi ini tidak boleh dilakukan di dekat objek yang dapat mempengaruhi magnetik, seperti rangka baja, rel kereta api, sumber listrik, pipa baja dalam tanah, atau objek lainnya.

Ada dua prosedur dalam melakukan swing kompas, yaitu swing konvensional dan swing elektrikal. Swing konvensional adalah prosedur untuk memperoleh referensi heading magnetik, baik dari compass-base yang menggunakan marka penyesuai heading berupa cat, maupun dari kompas datum, biasanya berupa master compass. Sedangkan swing elektrikal dilakukan dengan mensimulasikan medan magnet bumi menggunakan sinyal listrik, sehingga tidak perlu memutar pesawat ke berbagai heading seperti pada swing konvensional. Alat yang digunakan untuk prosedur swing elektrikal ini adalah Compass Calibrator Set. (Robert Leonardo, 2011)

3.4 ADC *(Air Data Computer)*

Air Data Computer (ADC) adalah komponen avionik penting yang ditemukan di pesawat terbang. Komputer ini dapat menentukan data kecepatan udara, angka Mach, ketinggian, dan altitude yang dikalibrasi dari Sistem Statis Pitot pesawat . Di beberapa pesawat berkecepatan sangat tinggi, kecepatan udara setara dihitung, bukan kecepatan udara yang dikalibrasi. *Air data computer* biasanya juga mempunyai input suhu udara total. Hal ini memungkinkan untuk penghitungan suhu udara statis dan kecepatan udara sebenarnya. (Skybrary.aero.articles.com.)

BAB IV
PELAKSANAAN OJT

4.1 Ruang Lingkup Pelaksanaan *OJT*

Pelaksanaa On The Job Training ini dilaksanakan oleh Taruna Diploma 3 Teknik Pesawat Udara Angkatan 7 Politeknik Penerbangan Surabaya dengan jumlah 18 Taruna di PT Batam Aero Technic yang memiliki banyak wilayah kerja antara lain: *Engine Build Up, Repair, Composite Shop, Store, Painting Shop* dan *Line Production*. Wilayah kerja Taruna D3 Teknik Pesawat Udara ditempatkan di *Line Production* pada Line yang berbeda-beda. Pelaksanaan *On the Job Training (OJT)* ini dilaksanakan pada 1 April sampai dengan 30 Juni 2024.

4.2 Permasalahan

Selama pelaksanaan *On The Job Trainning* taruna dilibatkan langsung dalam kegiatan inspeksi dan perawatan interval C Check pesawat ATR 72-600/500 PK-WHI sehingga diharapkan taruna dapat mengaplikasikan teori yang telah didapat selama dikampus. Pada laporan *On the Job Training* ini taruna melaksanakan *perform task* semasa perawatan interval C Check ini, diperoleh beberapa taskcard dan trouble antara lain:

1. Compass system not accurate with standby compass
2. Functional Test of Air Data System
3. Removal of Bottom Exterior Navigation Antennas and Connectors for Detailed Inspection
4. Replace Main Landing Gear Brake
5. Lubrication of the Main Landing Gear and the Main Landing Gear Doors

4.2.1 *Compass system not accurate with standby compass*

Pesawat ATR 72 PK-WHI memasuki masa C-check dan melewati beberapa maintenance dan inspeksi oleh engineer pada pesawat. Selama masa maintenance C check, Taruna membantu engineer dan mechanic untuk menyelesaikan beberapa taskcard dan trouble yang terjadi pada pesawat ini.

1. Identification

Pesawat ATR 72-600 PK-WHI sedang melaksanakan maintenance C Check di hangar Batam Aero Techic dan dilakukan inspeksi pada pesawat, saat engineer sedang inspeksi menemukan perbedaan akurasi antara *Compass System* dan *Standby Compass* maka engineer membuat MDRR (*Maintenance Defect & Rectificatio Report*) pada laporan ini MDRR belum bisa ditampilkan karena dokumen maintenance pada saat pelaksanaan OJT sudah masuk dalam dokumen arsip BAT, untuk laporan OJT berikutnya setiap dokumen maintenance dalam pelaksanaan OJT diharapkan dapat ditampilkan seluruhnya.

2. Inspection

Dengan adanya perbedaan akurasi antara *Compass System dan Standby Compass* hal ini *enggineer* mengambil keputusan untuk melakukan *Calibration of the Attitude and Heading Reference System* dengan menggunakkan referensi ATR-A-34-25-XX-00001-273A A .

ATR

CUSTOMIZATION	AIRCRAFT TYPES	DOCTYPES	REVISION DATE	TITLE	TAIL NUMBER - MSN
IW7	ATR72	Line Maintenance	01-Jan-2024	ATR-A-34-25-XX-00001-273A-A - Calibration of the Attitude and Heading Reference System (AHRS)	PK-WHI - 01263

DM status information

DM Code : ATR-A-34-25-XX-00001-273A-A
Airline : IW7
Issue Number : 005
Issue Date : Jan 01/24
Breakdown Title : AHRS / IRS
DM Title : Calibration of the Attitude and Heading Reference System (AHRS)
Applicability : ***ON A/C MSN ALL***
Aircraft Type : ATR72
DM Producer : FB429
Language : Simplified English
Copyright : ATR-A-00-65-XX-10000-021A-D

ON A/C MSN ALL
TASK ATR-A-34-25-XX-00001-273A-A
Calibration of the Attitude and Heading Reference System (AHRS)
Personnel Required.

Minimum Number of person	2
Skills	Avionics
Manhours	0.2 h
Elapsed Time	0.10 h

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

Gambar 4.1 *Calibration of the Attitude and Heading Reference System (AHRS)*, AMM ATR-A-34-25-XX-00001-273A A.

3. Swing Compass

Setelah melakukan identification dan inspection permasalahan maka dilanjutkan adalah melakukan *swing compass* untuk mengkalibrasi sistem kompas pada pesawat. Pada pesawat ATR 72-600 swing compass masih menggunakan swing konvensional dimana prosedur untuk memperoleh referensi heading magnetik, dengan compass-base yang berupa *master compass.*

Gambar 4.3 *Preparation for swing compass*

Selanjutnya yaitu mempersiapkan konfigurasi pesawat dengan memberi daya AC dan DC circuit untuk pesawat *engine start* untuk mengatur frekuensi VOR, ADF, dan standby compass sebagai persiapan calibration sesuai dengan SUBTASK 3425XX-10100020001.

Setelah mempersiapkan pesawat dilanjutkan dengan tahap berikutnya. Dimana dalam kegiatan ini dilaksanakan sesuai dengan **SUBTASK 3425XX-10100020001** saat melaksanakan *swing compass* pesawat harus jauh dari benda yang bersifat magnetic dan tempat yang mmungkinkan pesawat untuk berpindah posisi untuk melaksanakan kalibrasi. Pada saat pelaksanaan on the job training *swing compass* dilaksanakan di run up area yang berada di kawasan Batam Aero Technic.

Saat pelaksanaan kalibrasi, master compass digunakan sebagai referensi magnetic heading untuk kompensasi saat swing compass dengan mengarahkan master compass center line dengan visor center upright-fin leading edge sesuai

dengan SUBTASK 3425XX-50000020002, selanjutnya pesawat diposisikan sesuai arah yang akan dikalibrasi sesuai SUBTASK 3425XX-50000030002.

Pesawat lain tidak boleh berada dalam jarak kurang dari 100 yard. Personil yang melakukan kalibrasi tidak boleh membawa alat atau benda yang mengandung baja. Alat baja, pisau, dan sebagainya harus disingkirkan dari personil dan operator di kokpit. Pesawat harus diperiksa untuk memastikan semua peralatan terpasang dengan benar, dan tidak ada alat atau benda magnetik yang tertinggal di dalam pesawat.

Gambar 4.5 Pelaksanaan *Swing Compass*

Data yang dicatat adalah referensi heading yaitu master compass, AHRS *magnetic heading* dan *Standby compass magnetic heading*, selanjutnya kalibrasi dilakukan pada AHRS1, AHRS2, dan *standby compass* sesuai dengan SUBTASK 3425XX-50000020002, SUBTASK 3425XX-50000030002, SUBTASK 3425XX-50000040002, dan SUBTASK 3425XX-50000050002

4. Functional Check

Kegiatan Functional Check dilakukan setelah swing compass selesai. Functional check dilakukan oleh engineer dan engineer akan melakukan double check untuk memastikan heading pada seluruh compass sudah sesuai, dengan mengikuti prosedur yang ada pada AMM.

4.2.2 *Functional Test of Air Data System*

Air Data System (ADS) memberikan fungsi utama yang berkaitan dengan kecepatan udara dan ketinggian pesawat. *Pitot-Static testers/air data test* adalah *pressure generator* dan instrumen pengukur yang dapat mensimulasikan ketinggian dan kecepatan peralatan pesawat di dalam pesawat. Nama *'Pitot-Static'* berasal dari *'Pitot & Static' probe* pada pesawat yang terhubung ke peralatan pesawat**.**

1. Identification

Pada saat pengerjaan maintenance C Check pesawat ATR72-600/500 dengan registrasi PK-WHI terdapat *taskcard Functional Test of Air Data System*. Test ini dilakukan untuk mengecek air data system bekerja dengan baik dan sesuai dengan instrumen pengukuran.

ATR

CUSTOMIZATION	AIRCRAFT TYPES	DOCTYPES	REVISION DATE	TITLE	TAIL NUMBER - MSN
IW7	ATR72	Line Maintenance	01-Jan-2024	ATR-A-34-1X-XX-00001-340A-A - Functional Test of Air Data System	PK-WHI - 01263

DM status information

DM Code : ATR-A-34-1X-XX-00001-340A-A
Airline : IW7
Issue Number : 006
Issue Date : Jan 01/24
Breakdown Title : FLIGHT ENVIRONMENT DATA
DM Title : Functional Test of Air Data System
Applicability : ***ON A/C MSN ALL***
Aircraft Type : ATR72
DM Producer : FB429
Language : Simplified English
Copyright : ATR-A-00-65-XX-10000-021A-D

ON A/C MSN ALL
TASK ATR-A-34-1X-XX-00001-340A-A
Functional Test of Air Data System
Personnel Required.

Minimum Number of person	1
Skills	Electrics
Manhours	4 h
Elapsed Time	4.00 h

CAUTION: DO NOT OPERATE THE GROUND AIR PRESSURIZATION UNIT OUTSIDE OF THESE LIMITS :
- ALTITUDE BETWEEN –1000 FT AND +35 000 FT,
- IAS BELOW 350 KT OR 125 KT IF AN ENGINE IS RUNNING,
- VERTICAL SPEED BELOW 6000 FT/MIN.

DO NOT DISCONNECT A LINE WHEN THE GROUND AIR PRESSURIZATION UNIT OPERATES.
IT WOULD DAMAGE THE AIRCRAFT FLIGHT INSTRUMENTS.

1. General
   A. Reason for the Job
      Self Explanatory
   B. Additional information

Gambar 4.1 Task Card Functional Test of Air Data System AMM TASK ATR-A-34-1X-XX-00001-340A-A

2. Inspection

Sebelum melakukan functional test engineer memastikan untuk melakukan pengujian yang dijelaskan sesuai TASK ATR-A-34-1X-XX-00001-340A-A suhu lingkungan di luar harus stabil dan *Total air temperature probe* harus jauh dari sumber panas langsung (cahaya matahari).

3. Functional Test

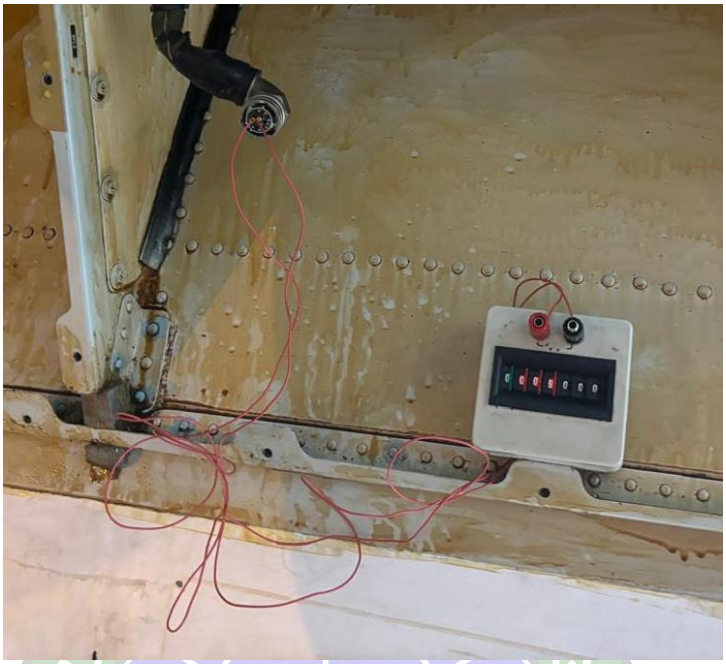
Selanjutnya engineer melakukan functional test sesuai urutan yang ada dalam AMM. Alat yang diperlukan untuk melaksanakan Functional test ini sesuai TASK ATR-A-34-1X-XX-00001-340A-A sebagai berikut

a) CALIBRATION – PITOT STATIC
b) KIT-ACCESSORIES AIR DATA
c) PITOT TEST ADAPTOR
d) DECADE RESISTER BOX
e) THERMOMETER

Pelaksanaan Functional Check dilakukan oleh engineer sesuai dengan task yang akan diperform, untuk langkah awal adalah dengan memberikan daya elictrical AC, DC, dan ACW pada pesawat dan memastikan aliran udara pada ectronics rack memdai untuk,mengaktifkan *EXHAUST MODE* dengan cara menekan tombol yang berada pada *overhead panel* 22VU sesuai SUBTASK 341XXX-10100280001. Prosedur berikutnya adalah menyiapkan pemasangan *pitot-static tester* pada pesawat pada Gambar 4.7 dan *decade box* pada *temperatur probe connector* pin J dan E yang dapat dilihat pada Gambar 4.8 dan Gambar 4.9.

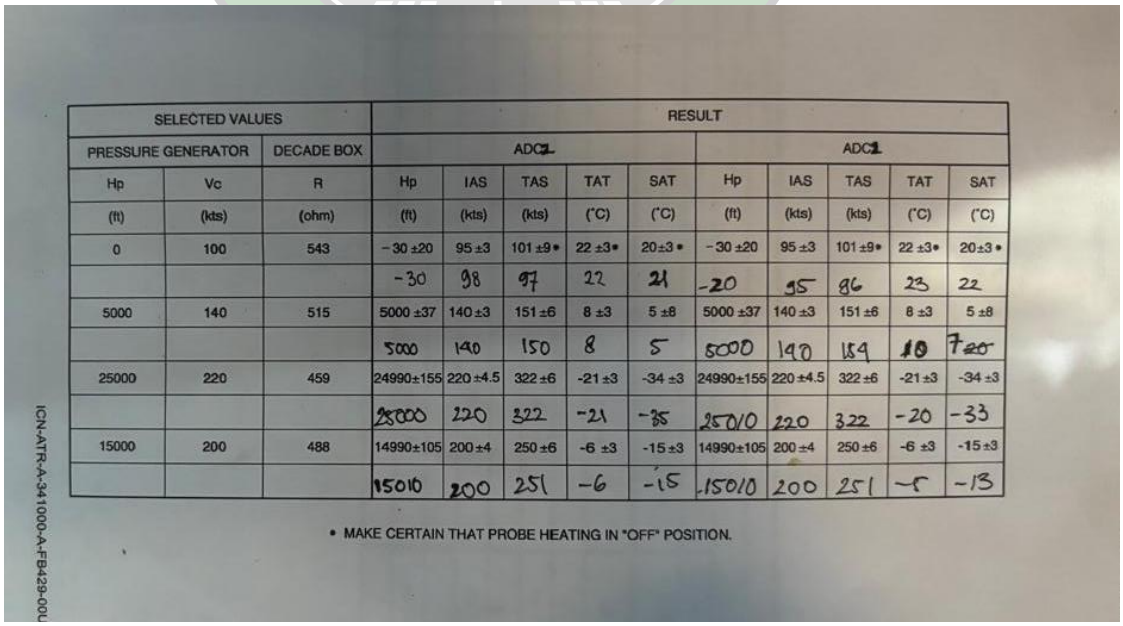
Gambar 4.2 *Install Pitot-Static Tester*

Gambar 4.3 *Total Air Temperature Probe*



Gambar 4.4 Pemasangan *Decade Box*

Functional test dilakukan pada ADC1 (ADC2) *Pressure system, Total Air Temperature System, dan Leakage test* dari *Air Data System*. *Functional test* dilakukan oleh engineer sesuai prosedur TASK ATR-A-00-65-XX-10000-021A-D dan hasil yang didapat dicatat sesuai tabel yang ada pada ICN-ATR-A-341000-A-FB429-00U61-A-002-01 dan ICN-ATR-A-341000-A-FB429-00U62-A-002-01.

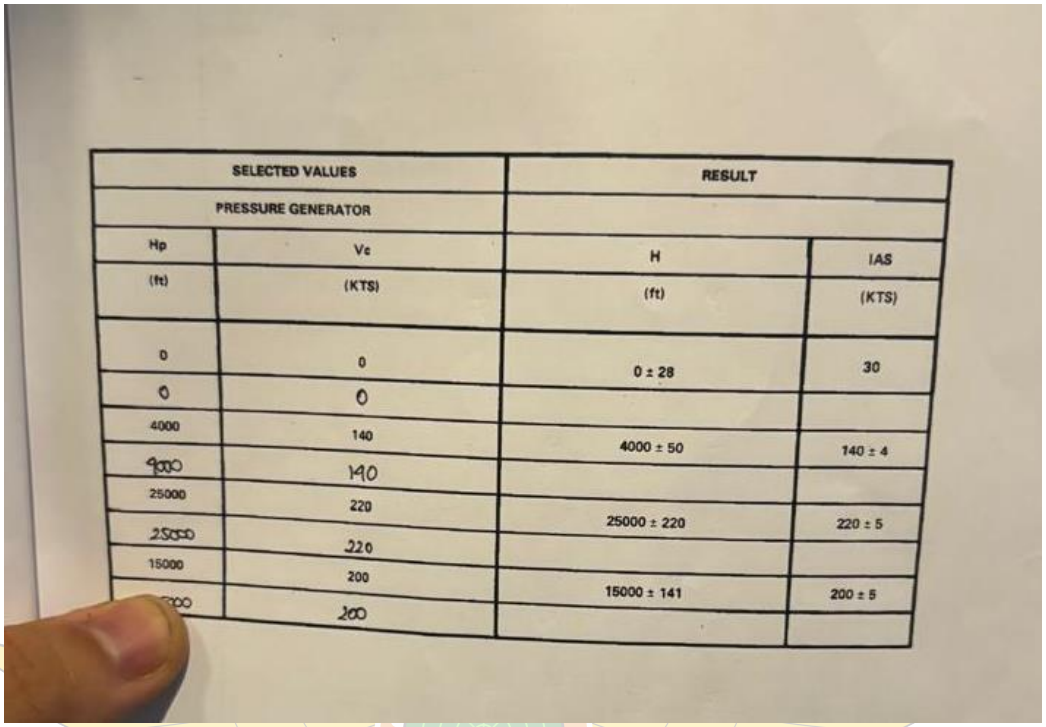


SELECTED VALUES			RESULT									
PRESSURE GENERATOR		DECADE BOX	ADC2					ADC1				
Hp	Vc	R	Hp	IAS	TAS	TAT	SAT	Hp	IAS	TAS	TAT	SAT
(ft)	(kts)	(ohm)	(ft)	(kts)	(kts)	(°C)	(°C)	(ft)	(kts)	(kts)	(°C)	(°C)
0	100	543	−30 ±20	95 ±3	101 ±9•	22 ±3•	20±3 •	−30 ±20	95 ±3	101 ±9•	22 ±3•	20±3 •
			-30	98	97	22	21	-20	95	96	23	22
5000	140	515	5000 ±37	140 ±3	151 ±6	8 ±3	5 ±8	5000 ±37	140 ±3	151 ±6	8 ±3	5 ±8
			5000	140	150	8	5	5000	140	150	10	720
25000	220	459	24990±155	220 ±4.5	322 ±6	-21 ±3	-34 ±3	24990±155	220 ±4.5	322 ±6	-21 ±3	-34 ±3
			25000	220	322	-21	-35	25010	220	322	-20	-33
15000	200	488	14990±105	200 ±4	250 ±6	-6 ±3	-15 ±3	14990±105	200 ±4	250 ±6	-6 ±3	-15 ±3
			15010	200	251	-6	-15	15010	200	251	-5	-13

• MAKE CERTAIN THAT PROBE HEATING IN "OFF" POSITION.

ICN-ATR-A-341000-A-FB429-00U

Gambar 4.5 *Table of Values for ADC1 (ADC2) System AMM ATR-A-34-1X-XX-00001-340A-A*



SELECTED VALUES		RESULT	
PRESSURE GENERATOR			
Hp (ft)	Vc (KTS)	H (ft)	IAS (KTS)
0	0	0 ± 28	30
0	0		
4000	140	4000 ± 50	140 ± 4
9000	140		
25000	220	25000 ± 220	220 ± 5
25000	220		
15000	200	15000 ± 141	200 ± 5
[illegible]000	200		

Gambar 4.6 *Table of Values for Standby Air Data System AMM ATR-A-34-1X-XX-00001-340A-A*

Dari hasil yang didapat dan dicatat pada *table of values* pada gambar 4.10 dan 4.11 saat melakukan functional test dari *result dan tolerance* pada *table of value* memenuhi syarat tolerance dan dapat disimpulkan tidak adanya leak dan akurasi pada air data system masih memenuhi syarat dalam AMM ATR-A-34-1X-XX-00001-340A-A.

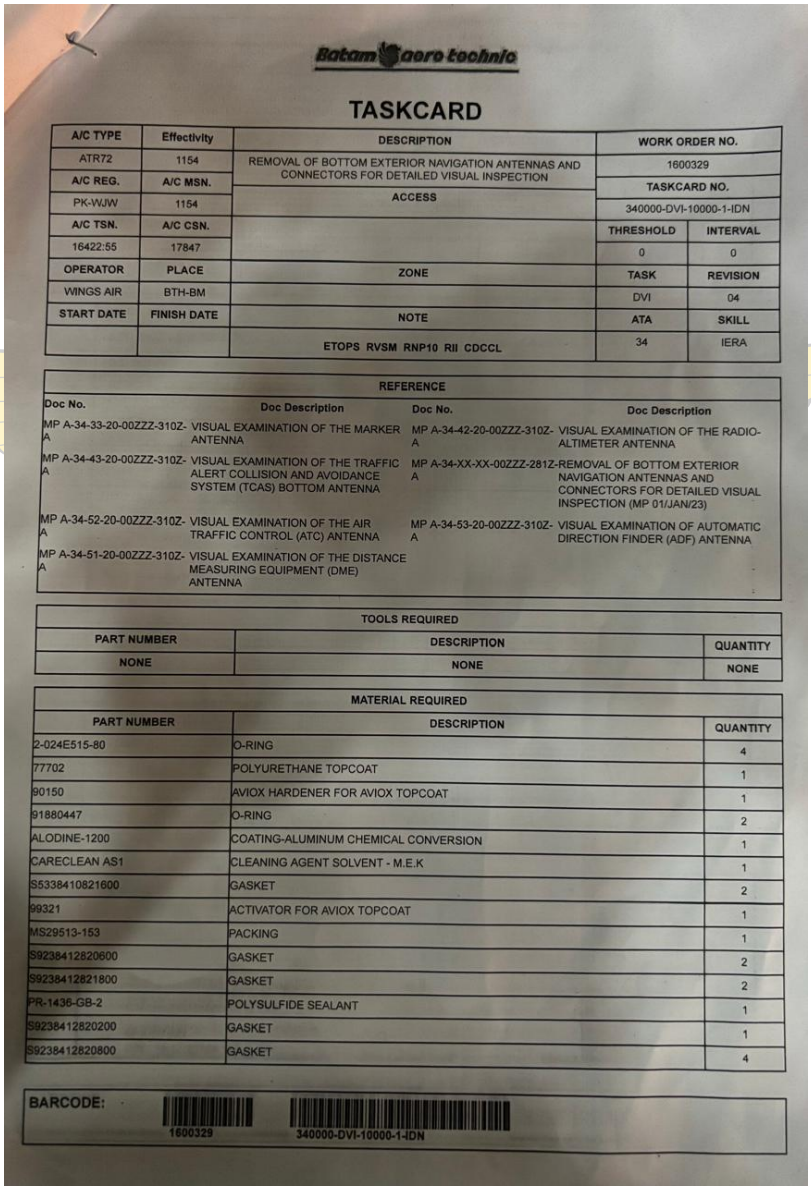
4. Close Task Card

Setelah perform task card, engineer selanjutnya melakukan close task card dengan catatan hasil dari pengetesan sesuai dan tidak ada masalah saat dilaksanakan functional check, kemudian engineer akan menambahkan tanda tangan serta stamp pada task card tersebut. Task card yang sudah di perform harus ditulis pada turn over book lengkap dengan keterangan “closed”, sehingga memudahkan chief untuk melihat progress kerja dari tim.

4.2.3 *Removal of Bottom Exterior Navigation Antennas and Connectors for Detailed Inspection*

1. Identification

Removal Navigation Antennas dilakukan pada saat adanya inspection C-Check pada pesawat ATR 72-600 dengan registrasi PK-WJW dengan TASK CARD NO. 3400000-DVI-1000000-1-IDN. *Removal Navigation Antennas* dilakukan untuk melihat apakah terjadi corrosion atau adanya kerusakan pada bagian Antennas dan Connector.



Batam Aero Technic

TASKCARD

A/C TYPE	Effectivity	DESCRIPTION	WORK ORDER NO.	
ATR72	1154	REMOVAL OF BOTTOM EXTERIOR NAVIGATION ANTENNAS AND CONNECTORS FOR DETAILED VISUAL INSPECTION	1600329	
A/C REG.	A/C MSN.	ACCESS	TASKCARD NO.	
PK-WJW	1154		340000-DVI-10000-1-IDN	
A/C TSN.	A/C CSN.		THRESHOLD	INTERVAL
16422:55	17847		0	0
OPERATOR	PLACE	ZONE	TASK	REVISION
WINGS AIR	BTH-BM		DVI	04
START DATE	FINISH DATE	NOTE	ATA	SKILL
		ETOPS RVSM RNP10 RII CDCCL	34	IERA

REFERENCE			
Doc No.	Doc Description	Doc No.	Doc Description
MP A-34-33-20-00ZZZ-310Z-A	VISUAL EXAMINATION OF THE MARKER ANTENNA	MP A-34-42-20-00ZZZ-310Z-A	VISUAL EXAMINATION OF THE RADIO-ALTIMETER ANTENNA
MP A-34-43-20-00ZZZ-310Z-A	VISUAL EXAMINATION OF THE TRAFFIC ALERT COLLISION AND AVOIDANCE SYSTEM (TCAS) BOTTOM ANTENNA	MP A-34-XX-XX-00ZZZ-281Z-A	REMOVAL OF BOTTOM EXTERIOR NAVIGATION ANTENNAS AND CONNECTORS FOR DETAILED VISUAL INSPECTION (MP 01/JAN/23)
MP A-34-52-20-00ZZZ-310Z-A	VISUAL EXAMINATION OF THE AIR TRAFFIC CONTROL (ATC) ANTENNA	MP A-34-53-20-00ZZZ-310Z-A	VISUAL EXAMINATION OF AUTOMATIC DIRECTION FINDER (ADF) ANTENNA
MP A-34-51-20-00ZZZ-310Z-A	VISUAL EXAMINATION OF THE DISTANCE MEASURING EQUIPMENT (DME) ANTENNA		

TOOLS REQUIRED		
PART NUMBER	DESCRIPTION	QUANTITY
NONE	NONE	NONE

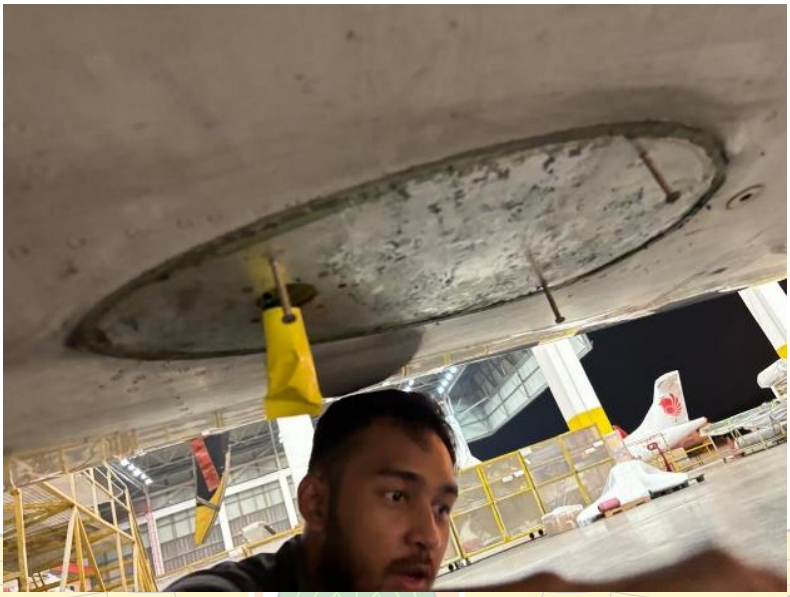
MATERIAL REQUIRED		
PART NUMBER	DESCRIPTION	QUANTITY
2-024E515-80	O-RING	4
77702	POLYURETHANE TOPCOAT	1
90150	AVIOX HARDENER FOR AVIOX TOPCOAT	1
91880447	O-RING	2
ALODINE-1200	COATING-ALUMINUM CHEMICAL CONVERSION	1
CARECLEAN AS1	CLEANING AGENT SOLVENT - M.E.K	1
S5338410821600	GASKET	2
99321	ACTIVATOR FOR AVIOX TOPCOAT	1
MS29513-153	PACKING	1
S9238412820600	GASKET	2
S9238412821800	GASKET	2
PR-1436-GB-2	POLYSULFIDE SEALANT	1
S9238412820200	GASKET	1
S9238412820800	GASKET	4

BARCODE: 1600329 340000-DVI-10000-1-IDN

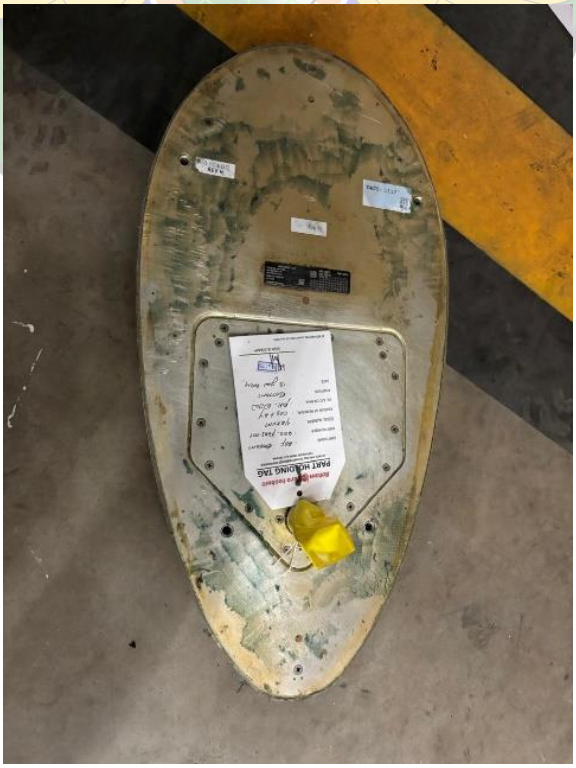
Gambar 4.7 *Task Card Removal of Bottom Exterior Navigation Antennas and Connectors for Detailed Inspection*

2. Visual Inspection

Untuk melakukan visual inspection dilakukan *removal* pada *navigation antennas* dan *connectors* sesuai SUBTASK 34XXXX-6000050001 pada saat pelaksanaan taruna membantu melepas antenna ADF.



Gambar 4.8 *Removal ADF Antenna*



Gambar 4.9 *ADF Antenna*

Sebelum melakukan *visual inspection* ADF antenna harus dibersihkan dari bekas sealent dan gasket sebelumnya. Pada *visual inspection* pada antenna ADF tidak ditemukan adanya corrosion pada antenna dan connector. Visual Inspection dilakukan oleh engineer pada saat pelaksanaan C-Check .

Gambar 4.10 *Installation Gasket*

Setelah dilakukan inspection dan keadaan *antennas dan connector* baik dilaukan assembly Kembali pada antenna. Pemasangan antenna dilakukan sesuai dengan ICN-ATR-A-345320-A-FB429-04G4L-A-002-01.

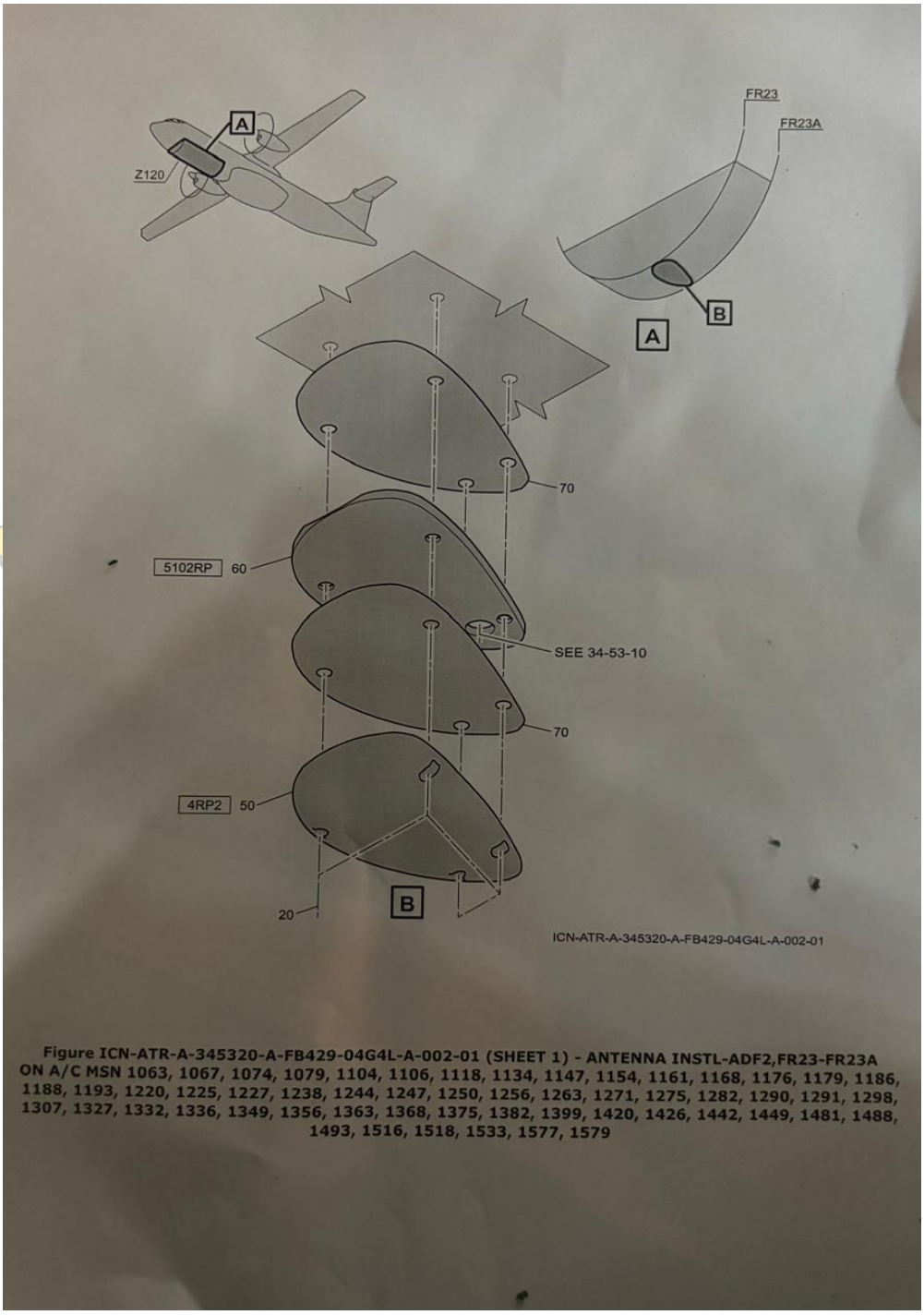
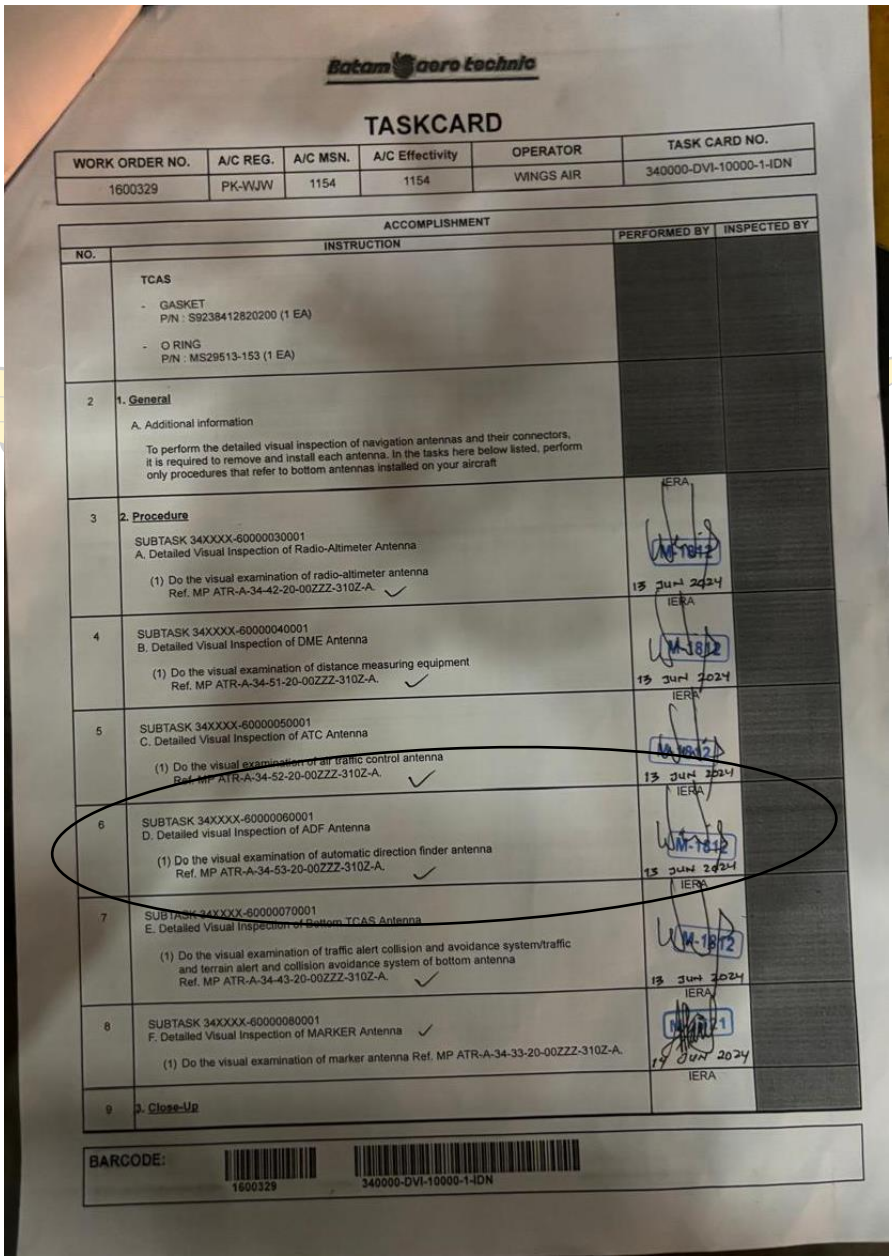


Figure ICN-ATR-A-345320-A-FB429-04G4L-A-002-01 (SHEET 1) - ANTENNA INSTL-ADF2,FR23-FR23A ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

Gambar 4.11 *Intallation Gasket* ICN-ATR-A-345320-A-FB429-04G4L-A-002-01

3. Close Task Card

Setelah perform task card dengan melaksanakan *visual inspection* pada *antennas* dan *connectors*, engineer selanjutnya melakukan *close task card* dengan menambahkan tanda tangan serta stamp pada task card tersebut yangdapat dilihat pada Gambar 4.17. Task card yang sudah di perform harus ditulis pada turn over book lengkap dengan keterangan “closed”, sehingga memudahkan chief untuk melihat progress kerja dari tim.



Batam aero technic

TASKCARD

WORK ORDER NO.	A/C REG.	A/C MSN.	A/C Effectivity	OPERATOR	TASK CARD NO.
1600329	PK-WJW	1154	1154	WINGS AIR	340000-DVI-10000-1-IDN

NO.	ACCOMPLISHMENT INSTRUCTION	PERFORMED BY	INSPECTED BY
	TCAS - GASKET P/N : S9238412820200 (1 EA) - O RING P/N : MS29513-153 (1 EA)		
2	1. General A. Additional information To perform the detailed visual inspection of navigation antennas and their connectors, it is required to remove and install each antenna. In the tasks here below listed, perform only procedures that refer to bottom antennas installed on your aircraft		
3	2. Procedure SUBTASK 34XXXX-60000030001 A. Detailed Visual Inspection of Radio-Altimeter Antenna (1) Do the visual examination of radio-altimeter antenna Ref. MP ATR-A-34-42-20-00ZZZ-310Z-A. ✓	IERA 13 JUN 2024	
4	SUBTASK 34XXXX-60000040001 B. Detailed Visual Inspection of DME Antenna (1) Do the visual examination of distance measuring equipment Ref. MP ATR-A-34-51-20-00ZZZ-310Z-A. ✓	IERA 13 JUN 2024	
5	SUBTASK 34XXXX-60000050001 C. Detailed Visual Inspection of ATC Antenna (1) Do the visual examination of air traffic control antenna Ref. MP ATR-A-34-52-20-00ZZZ-310Z-A. ✓	IERA 13 JUN 2024	
6	SUBTASK 34XXXX-60000060001 D. Detailed visual Inspection of ADF Antenna (1) Do the visual examination of automatic direction finder antenna Ref. MP ATR-A-34-53-20-00ZZZ-310Z-A. ✓	IERA 13 JUN 2024	
7	SUBTASK 34XXXX-60000070001 E. Detailed Visual Inspection of Bottom TCAS Antenna (1) Do the visual examination of traffic alert collision and avoidance system/traffic and terrain alert and collision avoidance system of bottom antenna Ref. MP ATR-A-34-43-20-00ZZZ-310Z-A. ✓	IERA 13 JUN 2024	
8	SUBTASK 34XXXX-60000080001 F. Detailed Visual Inspection of MARKER Antenna ✓ (1) Do the visual examination of marker antenna Ref. MP ATR-A-34-33-20-00ZZZ-310Z-A.	IERA 19 JUN 2024	
9	3. Close-Up		

BARCODE: 1600329 340000-DVI-10000-1-IDN

Gambar 4.12 *Close Task Card Visual Inspection*

4.2.4 *Replace Main Landing Gear Brake*

1. Identification

Penggantian *main landing gear brake* dilakukan karena adanya *inspection* yang dilakukan engineer saat maintenance C-Check penggantian *main landing gear* pada pesawat ATR 72-600 dengan registrasi PK-WHI. Pada stik indikator yang menandakan waktunya penggantian brake pada main landing gear.

ATR

CUSTOMIZATION	AIRCRAFT TYPES	DOCTYPES	REVISION DATE	TITLE	TAIL NUMBER - MSN
IW7	ATR72	Line Maintenance	01-Jan-2024	ATR-A-32-42-50-00001-720A-A - Installation of the MLG Brake	PK-WHI - 01263

DM status information

DM Code	: ATR-A-32-42-50-00001-720A-A
Airline	: IW7
Issue Number	: 006
Issue Date	: Jan 01/24
Breakdown Title	: SYSTEM COMPONENTS - MLG ZONE
DM Title	: Installation of the MLG Brake
Applicability	: ***ON A/C MSN ALL***
Aircraft Type	: ATR72
DM Producer	: FB429
Language	: Simplified English
Copyright	: ATR-A-00-65-XX-10000-021A-D

ON A/C MSN ALL
TASK ATR-A-32-42-50-00001-720A-A
Installation of the MLG Brake
FIN: 6631GG 6632GG 6633GG 6634GG

WARNING: INSTALL LANDING GEAR GROUND LOCKING PINS.
SET FLAPS AND LANDING GEAR CONTROL LEVERS IN ACCORDANCE WITH ACTUAL EQUIPMENT POSITION.

WARNING: CLEAR THE PATH OF LANDING GEARS AND INSTALL SAFETY BARRIERS.

1. General
   A. Reason for the Job
      Self Explanatory

2. Job Set-Up Information
   A. Work Zones.

ZONE	ZONE DESCRIPTION
195	HYDRAULIC COMPARTMENT
210	FLIGHT AND FORWARD AVIONICS COMPARTMENT
731	LH MAIN LANDING GEAR LEG
741	RH MAIN LANDING GEAR LEG

Gambar 4.13 *Task Card Installation of the MLG Brake AMM ATR-A-32-42-50-00001-720A-A*

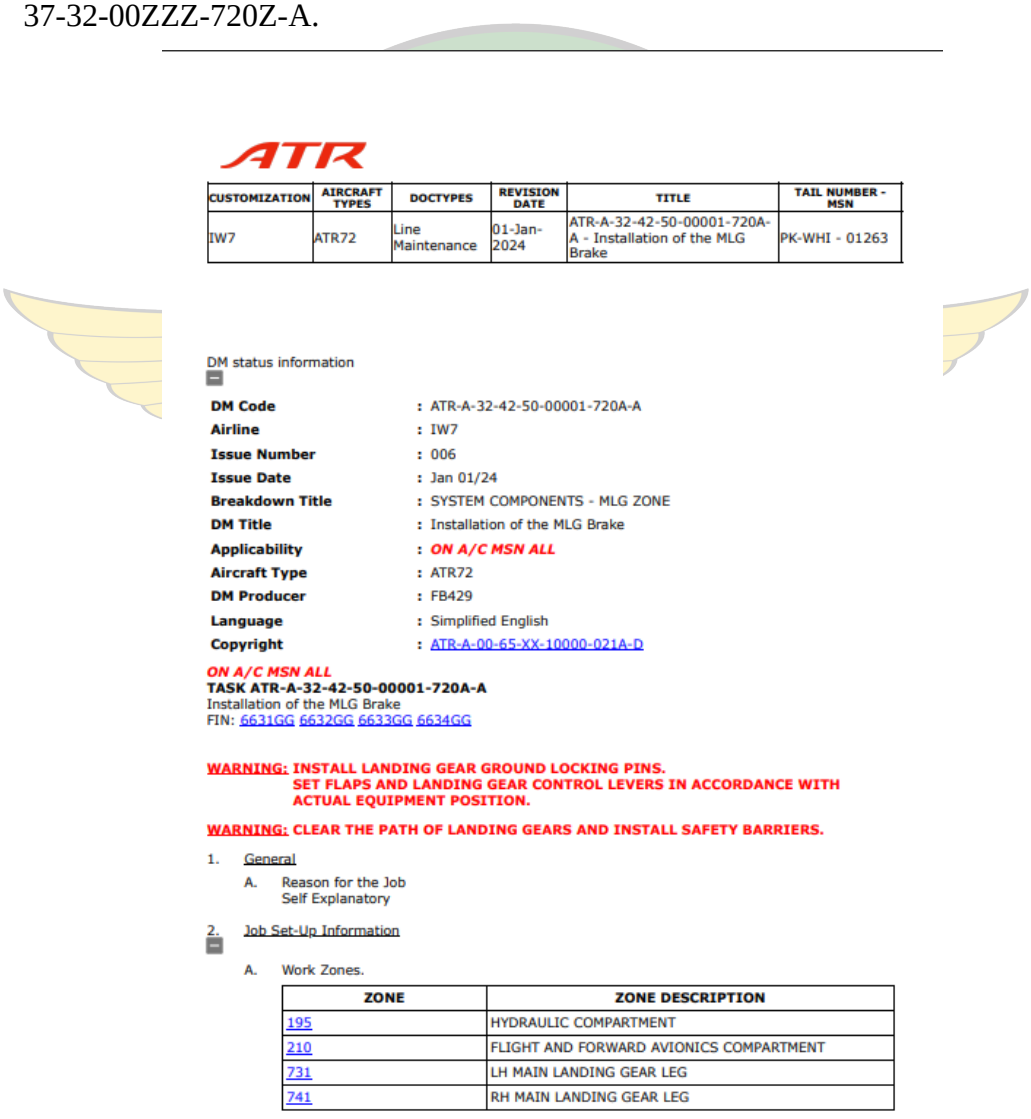
2. Remove Main Landing Gear Brake

Sebelum melaksanakan penggantian *main landing gear brake*, sesuai dengan SUBTASK 324250-86500010001 melepas *circuit breaker blue and green HYD PUMP PWR SPLY*. Selanjutnya *main landing gear* harus dalam posisi *jack* sesuai Ref. MP ATR-A-07-12-XX-00ZZZ-172Z-A. Lalu melepas main landing gear wheel/tire Ref. MP ATR-A-12-37-32-00ZZZ-520Z-A. dan melepas *temperature transducer* Ref. MP ATR-A-32-42-50-01ZZZ-520Z-A. Tahap berikutnya dalam melepaskan main landing gear brake untuk dilakukan penggantian adalah melepas *hydraulic pipes* dari *brake inlet port* dan *main landing gear brake* bisa dilepas.

Gambar 4.14 *Replacement Main Landing Gear Brake*

3. Install Main Landing Gear Brake

Setelah *Main landing gear brake* dilepas selanjutnya merupakan tahap pemasangan *main landing gear brake* yang baru. Pelaksanaan dilakukan berdasarkan ATR-A-32-42-50-00001-720A-A - *Installation of the MLG Brake*. Sebelum memasang MLG brake pastikan posisi *brake hydraulic inlet port* berada pada posisi yang tepat lalu sambungkan *hydraulic pipes* ke *brake inlet port*. Setelah *MLG brake* terpasang dengan baik selanjutnya *Install temperature transducer* Ref. MP ATR-A-32-42-50-01ZZZ-720Z-A. Dan MLG Wheel/Tire Ref. MP ATR-A-12-37-32-00ZZZ-720Z-A.



ATR

CUSTOMIZATION	AIRCRAFT TYPES	DOCTYPES	REVISION DATE	TITLE	TAIL NUMBER - MSN
IW7	ATR72	Line Maintenance	01-Jan-2024	ATR-A-32-42-50-00001-720A-A - Installation of the MLG Brake	PK-WHI - 01263

DM status information

DM Code : ATR-A-32-42-50-00001-720A-A
Airline : IW7
Issue Number : 006
Issue Date : Jan 01/24
Breakdown Title : SYSTEM COMPONENTS - MLG ZONE
DM Title : Installation of the MLG Brake
Applicability : ***ON A/C MSN ALL***
Aircraft Type : ATR72
DM Producer : FB429
Language : Simplified English
Copyright : ATR-A-00-65-XX-10000-021A-D

ON A/C MSN ALL
TASK ATR-A-32-42-50-00001-720A-A
Installation of the MLG Brake
FIN: 6631GG 6632GG 6633GG 6634GG

WARNING: INSTALL LANDING GEAR GROUND LOCKING PINS. SET FLAPS AND LANDING GEAR CONTROL LEVERS IN ACCORDANCE WITH ACTUAL EQUIPMENT POSITION.

WARNING: CLEAR THE PATH OF LANDING GEARS AND INSTALL SAFETY BARRIERS.

1. General
   A. Reason for the Job
      Self Explanatory

2. Job Set-Up Information
   A. Work Zones.

ZONE	ZONE DESCRIPTION
195	HYDRAULIC COMPARTMENT
210	FLIGHT AND FORWARD AVIONICS COMPARTMENT
731	LH MAIN LANDING GEAR LEG
741	RH MAIN LANDING GEAR LEG

Gambar 4.15 *Task Card Installation MLG Brake AMM ATR-A-32-42-50-00001-720A-A*

4.2.5 *Lubrication of the MLG and the MLG Doors*

1. Identification

Pada pesawat ATR 72-600 dengan registrasi PK-WHI dilakukan penggantian landing gear pada pelaksanaan maintenance C-Check, setelah penggantian Landing gear diperlukan lubrication terhadap main landing gear yang baru dipasang sesuai dengan TASK ATR-A-12-22-32-00001-240A-A.

ATR

CUSTOMIZATION	AIRCRAFT TYPES	DOCTYPES	REVISION DATE	TITLE	TAIL NUMBER - MSN
IW7	ATR72	Line Maintenance	01-Jan-2024	ATR-A-12-22-32-00001-240A-A - Lubrication of the MLG and the MLG Doors	PK-WHI - 01263

DM status information

DM Code	: ATR-A-12-22-32-00001-240A-A
Airline	: IW7
Issue Number	: 005
Issue Date	: Jul 01/22
Breakdown Title	: LANDING GEAR
DM Title	: Lubrication of the MLG and the MLG Doors
Applicability	: ***ON A/C MSN ALL***
Aircraft Type	: ATR72
DM Producer	: FB429
Language	: Simplified English
Copyright	: ATR-A-00-65-XX-10000-021A-D

ON A/C MSN ALL
TASK ATR-A-12-22-32-00001-240A-A
Lubrication of the MLG and the MLG Doors
FIN: 6509GM 6514GM

WARNING: MOST MATERIALS ARE DANGEROUS FOR YOUR HEALTH AND THE ENVIRONMENT (TOXIC, FLAMMABLE, EXPLOSIVE, IRRITANT...):
- **OBEY THE MATERIAL MANUFACTURER INSTRUCTIONS AND THE LOCAL REGULATIONS.**
- **USE PROTECTIVE CLOTHING, GOGGLES AND GLOVES.**
- **ENSURE CORRECT AIRFLOW THROUGH THE WORK AREA.**
- **DO NOT BREATHE THE FUMES.**
- **DO NOT USE THESE MATERIALS NEAR SPARKS OR SOURCES OF HEAT.**
- **DO NOT APPLY MATERIALS OUTSIDE OF SPECIFIED AREAS.**
- **PREPARE AND USE ONLY THE NECESSARY MATERIAL QUANTITY, USE THE APPLICABLE PROCEDURE TO DISCARD THE REMAINING MATERIAL.**

1. General

A. Reason for the Job
Ref. MPD ATR72_122232-LUB-10000-1
Ref. MPD ATR72_122232-LUB-10005-1
Ref. MPD ATR72_122232-LUB-10030-1

B. Additional information

NOTE: In some cases, the removal of the MLG wheels from the wheel axle will possibly not be easy if A/C operations lead to:
- High number of cycles between tires changes

Gambar 4.16 *Task Card Lubrication of the MLG and the MLG Doors ATR-A-12-22-32-00001-240A-A*

2. Servicing

Pelaksanaan lubrication pada *main landing gear* ATR 72-600 dilakukan berdasarkan AMM TASK ATR-A-12-22-32-00001-240A-A *Lubrication of the MLG and the MLG Doors*. Sesuai dengan AMM ada beberapa lubrication point sesuai dengan SUBTASK 122232-30000050004.

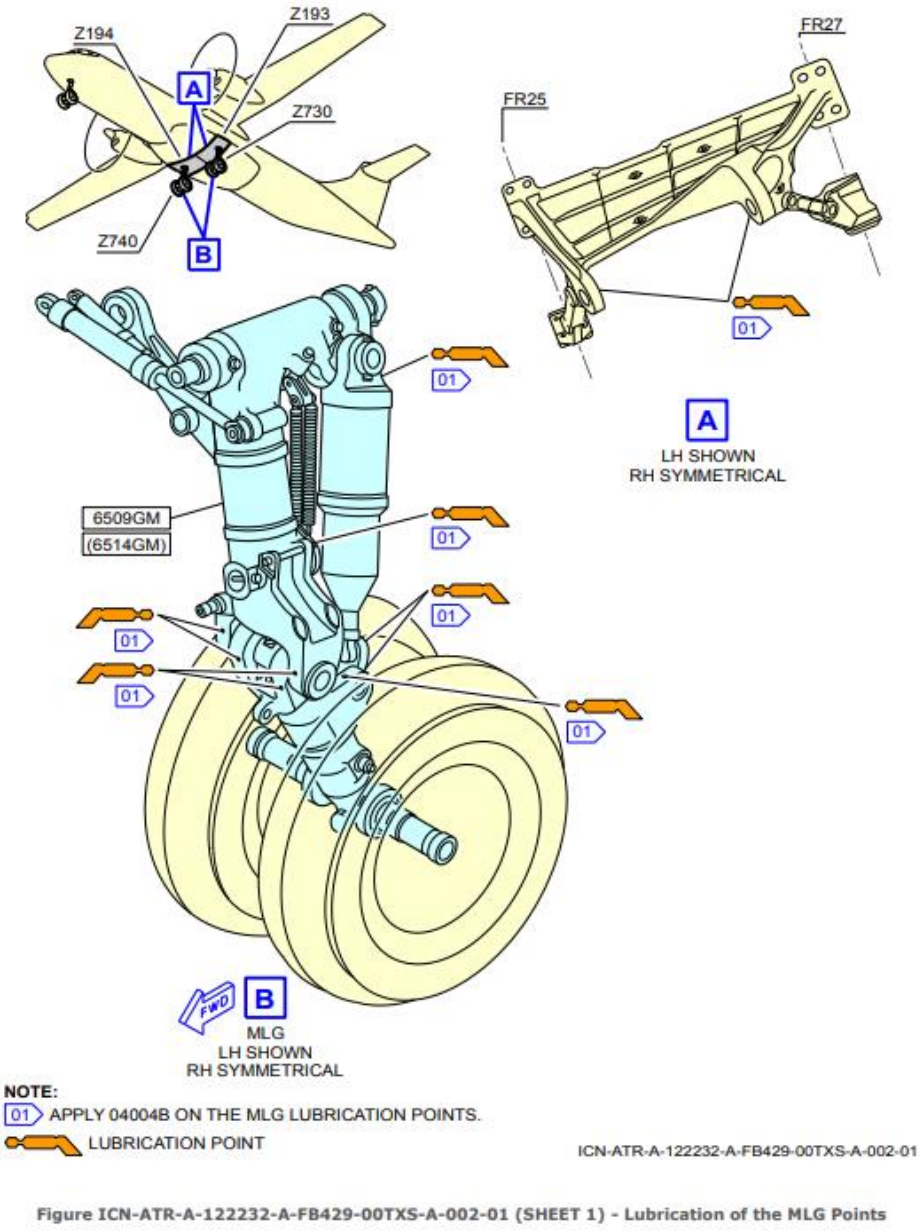


Figure ICN-ATR-A-122232-A-FB429-00TXS-A-002-01 (SHEET 1) - Lubrication of the MLG Points

Gambar 4.17 *Lubrication of the MLG Points AMM ATR-A-12-22-32-00001-240A-A*

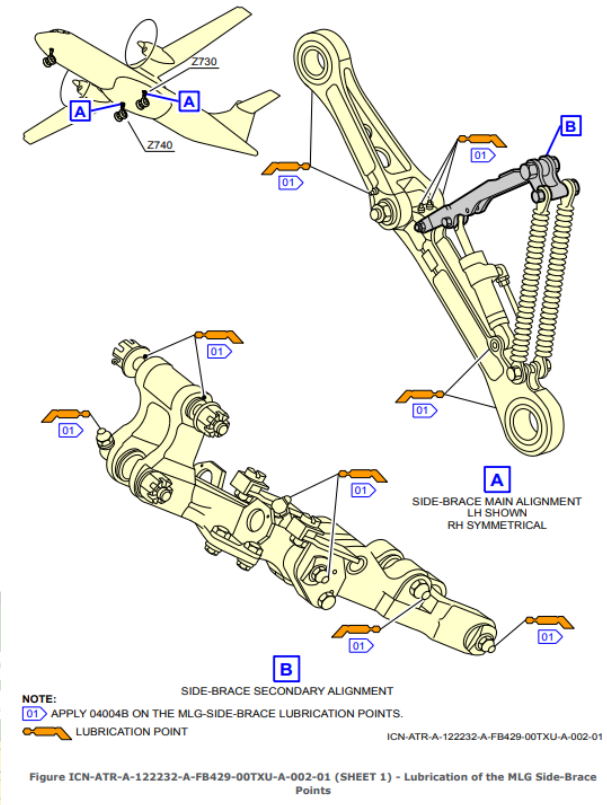


Figure ICN-ATR-A-122232-A-FB429-00TXU-A-002-01 (SHEET 1) - Lubrication of the MLG Side-Brace Points

Gambar 4.18 *Lubrication of the MLG Side-Brace Points AMM ATR-A-12-22-32-00001-240A-A*

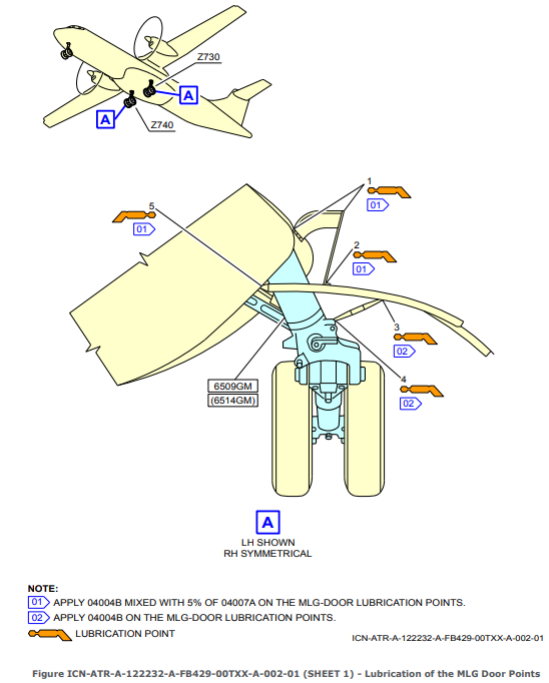


Figure ICN-ATR-A-122232-A-FB429-00TXX-A-002-01 (SHEET 1) - Lubrication of the MLG Door Points

Gambar 4.19 *Lubrication of the MLG Door Points AMM ATR-A-12-22-32-00001-240A-A*

Saat pelaksanaan lubrication pastikan *Grease Gun* dan *nipple* dalam kondisi yang baik. Kondisi saat pelaksanaan lubrication harus dalam keadaan bersih dan membersihkan bagian yang terdapat sisa grease sebelumnya. SUBTASK 122232-30000130001.

Gambar 4.20 *Documentation Lubrication of the MLG*

BAB V
PENUTUP

5.1 Kesimpulan

Kesimpulan adalah rangkaian pernyataan ringkas dari hasil umum suatu laporan atau karya ilmiah, sehingga sifat dan hasil pernyataan tersebut dapat dilihat dari kesimpulan. Menurut pedoman penulisan laporan OJT terbaru, kesimpulan dibagi menjadi dua bagian, kesimpulan tentang pelaksanaan OJT secara keseluruhan dan studi kasus yang disajikan. Kesimpulan yang dibahas dijelaskan pada subbab 5.1.1 dan 5.1.2

5.1.1 Kesimpulan Pelaksanaan OJT

Berdasarkan kegiatan *On The Job Training* yang telah dilaksanakan dari tanggal 01 April 2024 sampai dengan 30 Juni 2024, maka dapat diambil kesimpulan bahwa kegiatan *On The Job Training* dapat meningkatkan mutu pembelajaran sekaligus dapat memberikan pengetahuan yang belum bisa didapatkan selama pembelajaran di Politeknik Penerbangan Surabaya.

Pelaksanaan *On The Job Training* menjadi gambaran dalam dunia kerja sesungguhnya sehingga dapat mengembangkan wawasan dan kreatifitas yang dapat menumbuhkan profesionalisme dengan memahami keadaan lapangan saat terjadi suatu permasalahan ataupun perbaikan pesawat dibawah pengawasan teknisi dan engineer di Batam Aero Technic.

Selain itu, kegiatan *On The Job Training* dapat menambah kedisiplinan untuk mematuhi aturan yang berlaku selama belajar dan tanggung jawab disetiap tindakan maupun keputusan yang kita ambil.

5.1.2 Kesimpulan Terhadap Studi Kasus

1. Saat seorang engineer menemukan suatu trouble atau defect pada saat pelaksanaan maintenance, seorang engineer harus membuat laporan berupa MDRR (Maintenance Defect & Rectificatio Report)
2. Pada permasalahan perbedaan akurasi antara *Compass system* dan *standby compass* dapat diselesaikan, dengan melakukan kalibrasi

terhadap *Attitude and Heading Reference System (AHRS)* dan membuat AHRS dapat berfungsi dengan normal.

3. *Functional Test of Air Data System* adalah hal yang sangat penting dilakukan untuk selalu memastikan fungsi utama yang berkaitan dengan kecepatan udara, ketinggian pesawat dan suhu udara.
4. Untuk melaksanakan inspection corrosion yang ada pada navigation antenna dan connector task yang harus dilakukan adalah *Removal of Bottom Exterior Navigation Antennas and Connectors for Detailed Inspection*
5. Replacement main landing gear brake dan Lubrication Main Landing Gearmerupakan maintence preventive yang harus dilakukan pesawat agar pesawat selalu dalam kondisi yang optimal dan memperkecil terjadinya suatu permasalahan di pesawat.

5.2 Saran

1. Kepada taruna yang akan melaksanakan *On the Job Training* (OJT) selanjutnya diharapkan dapat memanfaatkan waktu yang sebaik baiknya untuk mendapat bimbingan, lebih aktif
2. Dalam mendokumentasikan setiap permasalahan-permasalahan yang didapat selama melaksanakan OJT kedepannya dapat diperbaiki lagi terutama pada Dokumen Maintenance yang dilaksanakan pada saat pelaksanaan OJT.
3. Untuk kegiatan OJT berikutnya dilaksanakan sebaik mungkin agar ilmu yang didapat selama pelaksanaan OJT dapat berguna termasuk dalam pembuatan laporan OJT yang lebih baik.

DAFTAR PUSTAKA

Http://www.lionair.co.id/tentang-kami

ATR-72 Specifications Sheet, Airborne Operations, 2019

Robert Leonardo, Compass Swing, Fakultas Teknik Universitas Nurtanio Bandung INDEPT, Vol 1, No. 2, Juni 2011, ISSN 2087 – 9240

ATR 72-500/600 Maintenance Manual, ATR-A-34-25-XX-00001-273A-A - Calibration of the Attitude and Heading Reference System (AHRS), Rev 1-Jan-2024

ATR 72-500/600 Maintenance Manual, ATR-A-34-1X-XX-00001-340A-A- Functional Test of Air Data System, Rev 1-Jan-2024

ATR 72-500/600 Maintenance Manual, ATR-A-32-11-XX-00001-720A-A- Installation of the MLG, Rev 1-Jan-2024

ATR 72-500/600 Maintenance Manual, ATR-A-32-42-50-00001-720A-A- Installation of the MLG Brake, Rev 1-Jan-2024

ATR 72-500/600 Maintenance Manual, ATR-A-32-42-50-00001-520A-A- Removal of the MLG Brake, Rev 1-Jan-2024

ATR 72-500/600 Maintenance Manual, ATR-A-12-37-32-00001-720A-A - Installation of the Main Landing Gear (MLG) Wheel/Tire Assembly, Rev 1-Jan-2024

ATR 72-500/600 Maintenance Manual, ATR-A-12-22-32-00001-240A-A- Lubrication of the MLG and the MLG Doors, Rev 1-Jan-2024

LAMPIRAN

Lampiran 1. ATR-A-34-25-XX-00001-273A-A - Calibration of the Attitude and Heading Reference System (AHRS)

CUSTOMIZATION	AIRCRAFT TYPES	DOCTYPES	REVISION DATE	TITLE	TAIL NUMBER - MSN
IW7	ATR72	Line Maintenance	01-Jan-2024	ATR-A-34-25-XX-00001-273A-A - Calibration of the Attitude and Heading Reference System (AHRS)	PK-WHI - 01263

DM status information

DM Code : ATR-A-34-25-XX-00001-273A-A
Airline : IW7
Issue Number : 005
Issue Date : Jan 01/24
Breakdown Title : AHRS / IRS
DM Title : Calibration of the Attitude and Heading Reference System (AHRS)
Applicability : ***ON A/C MSN ALL***
Aircraft Type : ATR72
DM Producer : FB429
Language : Simplified English
Copyright : ATR-A-00-65-XX-10000-021A-D

ON A/C MSN ALL
TASK ATR-A-34-25-XX-00001-273A-A
Calibration of the Attitude and Heading Reference System (AHRS)
Personnel Required.

Minimum Number of person	2
Skills	Avionics
Manhours	0.2 h
Elapsed Time	0.10 h

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

1. General

A. Reason for the Job
Self Explanatory

B. Additional information
All parts of Deviation Compensation described on paragraphs here below are required. Nevertheless, if compensation is not immediately realizable, Checking of Compensation described on paragraph later in this task can be directly done, but only in case of:
- Either opposite flux valve has never been removed.
- Or compensation has been already done on opposite flux valve.

ON A/C MSN ALL

2. Job Set-Up Information

A. Work Zones.

ZONE	ZONE DESCRIPTION
210	FLIGHT AND FORWARD AVIONICS COMPARTMENT
220	FORWARD CARGO COMPARTMENT
221	FORWARD AVIONICS COMPARTMENT
520	WING SPAR BOX
523	OUTER WING BOX
524	OUTER WING BOX
620	WING SPAR BOX
623	OUTER WING BOX
624	OUTER WING BOX

B. Access/Panel.

ACCESS/DOOR

ON A/C MSN ALL

C. Fixtures, Tools, Test and Support Equipment.

REFERENCE	QTY	DESIGNATION
No Specific	1	COMPASS (0.5DEG ACCURACY)

ON A/C MSN ALL

D. Referenced Information.

REFERENCE	DESIGNATION
ATR-A-24-46-XX-00ZZZ-561Z-A	MP - De-energization of the Electrical Circuits - AC and DC Circuits
ATR-A-24-46-XX-00ZZZ-761Z-A	MP - Energization of the Electrical Circuits - AC and DC Circuits
ATR-A-72-XX-XX-01ZZZ-132Z-A	MP - Engine Start (Propeller Brake Released) with DC Ground Power-Unit
ATR-A-72-XX-XX-00ZZZ-133Z-A	MP - Engine Stop (Propeller Break Released) with DC Ground Power-Unit

3. Job Set-Up

SUBTASK 3425XX-10100020001

A. Aircraft Maintenance Configuration

(1) Energize the aircraft electrical AC and DC circuits: Ref. MP ATR-A-24-46-XX-00ZZZ-761Z-A.

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

SUBTASK 3425XX-10100030003

B. Aircraft Preparation

NOTE: The following conditions must be met to do this test:
- The operating principle of the flux valves and the standby compass in the detection of earth magnetic field. This operation can therefore be disturbed by other magnetic field, in particular, those generated by the diverse aircraft systems.

(1) It is thus necessary to do the compensation in these conditions:

(a) Put aircraft in a position away from important magnetic mass (ground power unit, lorry, iron ladder). Special areas are frequently given on airports.

(b) Put the aircraft systems in flight configuration:
- Two engines running
- Two electrical powers operating
- Windshield de-icing operating
- VOR1 and VOR2 tuned on the frequency of a local signal
- ADF1 and ADF2 tuned on the frequency of a local signal
- VHF 1 and 2.

ON A/C MSN ALL

SUBTASK 3425XX-10100040001

C. Engine Start (Propeller Brake Released) with DC Ground Power Unit

(1) Start the engine (propeller brake released) with direct current ground power unit Ref. MP ATR-A-72-XX-XX-01ZZZ-132Z-A.

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

SUBTASK 3425XX-10100050007

Ref. Fig. Calibration of the Compass

D. Preparation for Test

(1) Standby compass:

(a) On the glareshield, on panel 131VU:

1 Push the CONTROL LEVER on the DN position:
- The standby compass goes down from its housing.

ON A/C MSN ALL

4. Procedure

SUBTASK 3425XX-86500010001

A. Identify circuit breakers used in this procedure:

PANEL	DESIGNATION	FIN	LOCATION
ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579			
21VU	C/B-PRIM REF/AHRS 1 NORM SPLY	3FP1	D03
ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579			
21VU	PRIM REF/AHRS 1 AUX SPLY	2FP1	C03
ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250,			

PANEL	DESIGNATION	FIN	LOCATION

1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

21VU	C/B-PRIM REF/AHRS 2 AUX SPLY-GND	6FP	D04

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

21VU	C/B-PRIM REF/AHRS 2 NORM SPLY	3FP2	C04

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

21VU	C/B-PRIM REF/AHRS 2 AUX SPLY-FLT	2FP2	B04

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

SUBTASK 3425XX-50000020002

Ref. Fig. Compensation Check

C. Deviations Compensation (Part 1)

Ref. Fig. Calibration of the Compass

(1) Record the results in a sequence on the figure.

(2) Do the compensation on only one side and compare the values with the other side as follows:

(a) On the F/O MCDU main menu:
- Select FMS 1 or FMS 2 key.
- Select the DATA key.
- Select the STATUS key.
- Then select the HDG/ATT.

(3) Align the AHRS as follows:

(a) Use the bearing COMPASS (0.5DEG ACCURACY) or other instrument that gives the bearing reading, or with the compass base, turn the aircraft to the magnetic north (take as aircraft center line: visor center upright - fin leading edge). This will be used as a reference magnetic heading for the compensation.

(b) On the CAPT MCDU main menu:
- Select the ACMS menu.
- Select the AVS, SYSTEM REPORT/TEST and AHRS 1 submenus (page 3/4).
- Push the SYSTEM TEST/SPECIFIC ACTION and then the FLUX VALVE CALIBRATION keys to enter AHRS 1 flux-valve calibration.
- Push the CAL MODE key for three seconds to set AHRS 1 in the calibration mode.
  - On AHRS 1 flux-valve calibration-page:
    - The "WAIT FOR END OF ALIGNMENT" message comes into view.
  - On PFD 1:
    - The AHRS data is flagged.
  - The time to align the AHRS continues for five minutes.

NOTE: - The "AHRS NOT ALIGN" comes into view temporarily and then goes out of view on the Engine and Warning Display (EWD) alert windows, when you release the parking brake.
- The alert message "AHRS 1+2" comes into view on the EWD alert window two seconds after the end of the operational mode on AHRS 1. The alert stops when you complete the calibration.

- Push GO TO AHRS 2 key to enter AHRS 2 flux-valve calibration.
- Push the CAL MODE key for three seconds to set AHRS 2 in the calibration mode.
  - On AHRS 2 flux-valve calibration-page:
    - The "WAIT FOR END OF ALIGNMENT" message comes into view.
  - On PFD 2:
    - The AHRS data is flagged.
  - The time to align the AHRS continues for five minutes.

  NOTE: The alert message "AHRS 1+2" comes into view on the EWD alert window two seconds after the end of the operational mode on AHRS 2. The alert stops when you complete the calibration.

- When AHRS 2 is aligned, the "READY TO CALIBRATE" message comes into view.
- Push GO TO AHRS 1 key to start AHRS 1 compensation.
- Make sure that the "READY TO CALIBRATE" message comes into view on AHRS 1 page.

SUBTASK 3425XX-50000030002
Ref. Fig. Compensation Check
D. Deviations Compensation (Part 2)
Ref. Fig. Calibration of the Compass

(1) Deviations compensation - STEP 1 (for north to 270 degrees A/C positions - with 45 degrees steps):

(a) Do the first compensation check with the aircraft pointed in the north position, then do the compensation again with the aircraft is in these directions:
- Aircraft in heading 45 degrees (± 5 degrees) position
- Aircraft in heading 90 degrees (± 5 degrees) position
- Aircraft in heading 135 degrees (± 5 degrees) position
- Aircraft in heading 180 degrees (± 5 degrees) position
- Aircraft in heading 225 degrees (± 5 degrees) position
- Aircraft in heading 270 degrees (± 5 degrees) position.

(2) Put the aircraft in the necessary position.

(3) Record as follows:
- The reference magnetic heading
- AHRS1 magnetic heading
- Standby compass magnetic heading.

(4) Push HDG+ and HDG- keys to correct magnetic heading measured with AHRS1.

(a) When magnetic heading is equal to the reference magnetic heading (error must be inferior to one degree), record AHRS1 magnetic heading.

(5) Push the VALIDATE key (to prevent error, a minimum of one push must be done on HDG± key before validation):
- "CALIBRATING" message comes into view.

NOTE: During around 40 seconds, the magnetic heading displayed on MCDU is the corrected value. Then the magnetic heading displayed backs to the previous value (before correction). However, correction was done correctly.

(6) When "CALIBRATING" message goes out of view, push GO TO AHRS2 key to start AHRS2 compensation.

(d) Push the VALIDATE key (to prevent error, a minimum of one push must be done on HDG± key before validation):
- "READY TO END" message comes into view after approximately one minute.

(e) Push the END CALIB key for three seconds to complete AHRS1 compensation:
- This automatically aligns the AHRS1.
- Make sure that the AHRS2 flux valve calibration page comes into view automatically.
- "READY TO CALIBRATE" message comes into view.

(f) Record AHRS2 magnetic heading.

(g) Push HDG+ and HDG- keys to correct magnetic heading measured with AHRS2.

1 When the magnetic heading is equal to the reference magnetic heading (error must be inferior to one degree), record AHRS2 magnetic heading.

(h) Push the VALIDATE key (to prevent error, a minimum of one push must be done on HDG± key before validation).
- "READY TO END" message comes into view after approximately one minute.

(i) Push the END CALIB key for three seconds to complete AHRS2 compensation.
- This automatically aligns the AHRS2, and shows AHRS2 system test page.

(4) Do a check when the two AHRS are aligned (the sequence continues for one minute).

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

SUBTASK 3425XX-50000050002

Ref. Fig. Compensation Check

F. Check of Compensation

(1) Do the compensation check in each of these aircraft directions (last 315 degrees position can be first):
- Aircraft in heading north (± 5 degrees) position
- Aircraft in heading 45 degrees (± 5 degrees) position
- Aircraft in heading 90 degrees (± 5 degrees) position
- Aircraft in heading 135 degrees (± 5 degrees) position
- Aircraft in heading 180 degrees (± 5 degrees) position
- Aircraft in heading 225 degrees (± 5 degrees) position
- Aircraft in heading 270 degrees (± 5 degrees) position
- Aircraft in heading 315 degrees (± 5 degrees) position.

(2) Put a temporary placard to note calibrated values on the standby compass.

(3) Put the aircraft in the necessary position.

(4) Set AHRS1 to OFF:

(a) On the overhead panel, on panel 21VU:

1 Open these circuit breaker(s):
- 3FP1
- 2FP1.

(5) Set AHRS1 to ON:

(a) Close these circuit breaker(s):
- 3FP1
- 2FP1.

(6) Set AHRS2 to OFF:

(a) On the overhead panel, on panel 21VU:

1 Open these circuit breaker(s):
- 6FP
- 3FP2
- 2FP2.

(7) Set AHRS2 to ON:

(a) Close these circuit breaker(s):
- 6FP
- 3FP2
- 2FP2.

(8) Wait for a minimum of one minute for AHRS to align ("AHRS DEGRADED" message must not come into view on PFD).

NOTE: With parking brake released, on the EWD alert windows, "AHRS NOT ALIGN" message comes into view temporarily and then goes out of view.

(9) Record as follows:
- AHRS1 magnetic heading (on the PFD CAPT)
- AHRS2 magnetic heading (on the PFD F/O)
- Standby compass magnetic heading
- Reference heading
- VOR1, VOR2, ADF1 and ADF2 (if installed) bearing.

(10) When all the checks are done for all the aircraft positions:

(a) Record error curve for captain and first officer PFD and standby compass. Maximum error must not more than ± 1 degree for PFD and ± 10 degrees for the standby compass.

(b) Record the deviation related to each of the eight headings on the new compensation label of standby compass.

(11) Remove the temporary placard installed during Ref. F.(2) on the standby compass.

ON A/C MSN ALL

5. Close-Up

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

SUBTASK 3425XX-10200010002

A. Close Up

(1) Install standby compass in its housing.

(2) Put the aircraft back to its initial configuration:

ON A/C MSN ALL

SUBTASK 3425XX-10200020001

B. Engine Shut Down

(1) Stop the engine (propeller brake released) with direct current ground power unit Ref. MP ATR-A-72-XX-XX-00ZZZ-133Z-A.

SUBTASK 3425XX-10200030001

C. De-energization of Aircraft DC and AC Constant Frequency Network

(1) De-energize the aircraft electrical AC and DC circuits: Ref. MP ATR-A-24-46-XX-00ZZZ-561Z-A.

SUBTASK 3425XX-10200330001

D. Close Up (continued)

(1) Make sure that the work area is clean and clear of tools and other items.

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

 Figure ICN-ATR-A-342500-A-FB429-00WD2-A-001-01 SHEET 1/1 - Compensation Check

ON A/C MSN ALL

 Figure ICN-ATR-A-342500-A-FB429-044Q7-A-001-01 SHEET 1/1 - Calibration of the Compass

COMPENSATION

FREQUENCIES			
VOR1		ADF1	
VOR2		ADF2	

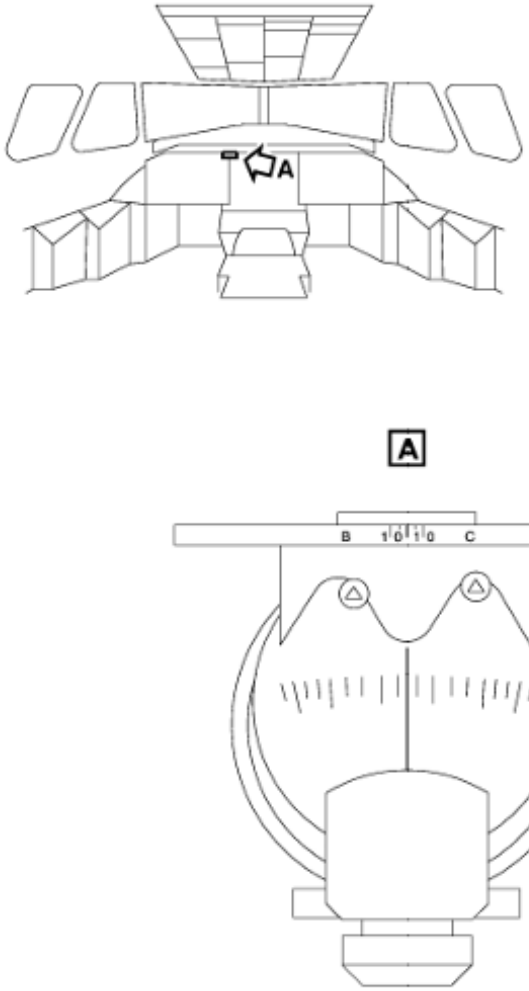
TEST POINT	REF. MAG HDG	AHRS1		AHRS2		STBY COMPASS	
		BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
0°							
45°							
90°							
135°							
180°							
225°							
270°							
315°							

COMPENSATION CHECK

		CAP				F/O				STBY COMPASS	
	REF.	HDG1	•	VOR1	ADF1	HDG2	•	VOR2	ADF2	HDG	•
0°											
45°											
90°											
135°											
180°											
225°											
270°											
315°											

ICN-ATR-A-342500-A-FB429-00WD2-A-001-01

Figure ICN-ATR-A-342500-A-FB429-00WD2-A-001-01 (SHEET 1) - Compensation Check



ICN-ATR-A-342500-A-FB429-044Q7-A-001-01

Figure ICN-ATR-A-342500-A-FB429-044Q7-A-001-01 (SHEET 1) - Calibration of the Compass

Lampiran 2. ATR-A-34-1X-XX-00001-340A-A – Functional Test of Air Data System

CUSTOMIZATION	AIRCRAFT TYPES	DOCTYPES	REVISION DATE	TITLE	TAIL NUMBER - MSN
IW7	ATR72	Line Maintenance	01-Jan-2024	ATR-A-34-1X-XX-00001-340A-A - Functional Test of Air Data System	PK-WHI - 01263

DM status information

DM Code	: ATR-A-34-1X-XX-00001-340A-A
Airline	: IW7
Issue Number	: 006
Issue Date	: Jan 01/24
Breakdown Title	: FLIGHT ENVIRONMENT DATA
DM Title	: Functional Test of Air Data System
Applicability	: ***ON A/C MSN ALL***
Aircraft Type	: ATR72
DM Producer	: FB429
Language	: Simplified English
Copyright	: ATR-A-00-65-XX-10000-021A-D

ON A/C MSN ALL
TASK ATR-A-34-1X-XX-00001-340A-A
Functional Test of Air Data System
Personnel Required.

Minimum Number of person	1
Skills	Electrics
Manhours	4 h
Elapsed Time	4.00 h

CAUTION: **DO NOT OPERATE THE GROUND AIR PRESSURIZATION UNIT OUTSIDE OF THESE LIMITS :**
- **ALTITUDE BETWEEN –1000 FT AND +35 000 FT,**
- **IAS BELOW 350 KT OR 125 KT IF AN ENGINE IS RUNNING,**
- **VERTICAL SPEED BELOW 6000 FT/MIN.**

DO NOT DISCONNECT A LINE WHEN THE GROUND AIR PRESSURIZATION UNIT OPERATES.
IT WOULD DAMAGE THE AIRCRAFT FLIGHT INSTRUMENTS.

1. General
   A. Reason for the Job
      Self Explanatory
   B. Additional information

To do the test correctly described in the task, ambient temperature outside must be stable. Total air temperature probe must be away from a direct source of heat (sun light in particular).

NOTE: In case of Rosemount pitot static probes installation, PITOT TEST ADAPTOR(P74418-4) must be used.

2. Job Set-Up Information

A. Work Zones.

ZONE	ZONE DESCRIPTION
113	FORWARD LOWER FUSELAGE SECTION - UNDER FLIGHT COMPARTMENT
114	FORWARD LOWER FUSELAGE SECTION - UNDER FLIGHT COMPARTMENT
210	FLIGHT AND FORWARD AVIONICS COMPARTMENT
211	FLIGHT COMPARTMENT
212	FLIGHT COMPARTMENT
293	WING TO FUSELAGE FILLET
294	WING TO FUSELAGE FILLET

B. Fixtures, Tools, Test and Support Equipment.

REFERENCE	QTY	DESIGNATION
1811GA465	1	CALIBRATION - PITOT STATIC
ATR42-612	1	KIT-ACCESSORIES - AIR DATA
P74418-4	1	PITOT TEST ADAPTOR
No Specific	1	DECADE RESISTOR BOX
No Specific	1	THERMOMETER

C. Referenced Information.

REFERENCE	DESIGNATION
ATR-A-24-4X-XX-00ZZZ-561Z-A	MP - De-Energization of the Alternate Current (AC), Direct Current (DC) and Alternate Current Wild Frequency (ACW) Circuits
ATR-A-24-4X-XX-00ZZZ-761Z-A	MP - Energization of the Alternate Current (AC), Direct Current (DC) and Alternate Current Wild Frequency (ACW) Circuits
ATR-A-34-11-10-00ZZZ-520Z-A	MP - Removal of the Temperature Probe
ATR-A-34-11-10-00ZZZ-720Z-A	MP - Installation of Temperature Probe

3. Job Set-Up

SUBTASK 341XXX-10100010001

A. Energization of the Aircraft Electrical AC, DC and ACW Circuits

(1) Energize the aircraft electrical AC, DC and ACW circuits: Ref. MP ATR-A-24-4X-XX-00ZZZ-761Z-A.

SUBTASK 341XXX-10100280001

B. Preparation

(1) Make sure that in the electronics rack the airflow is sufficient.

(2) On the Overhead Panel, on the AVIONICS VENT section of panel 22VU:

(a) Push the EXHAUST MODE pushbutton:
- The FAULT light goes off.

SUBTASK 341XXX-87500010003

C. Open, safety and tag these circuit breaker(s):

PANEL	DESIGNATION	FIN	LOCATION
122VU	C/B-PROBES HTG/F/O/CAUTION	1DA	P05
122VU	C/B-PROBES HTG/F/O/ALPHA	2DA	P02
122VU	C/B-PROBES HTG/F/O PITOT	4DA	N03
122VU	C/B-PROBES HTG/CAPT/TAT	5DA	L03
122VU	C/B-PROBES HTG/CAPT/STAT	6DA	M03
122VU	C/B-PROBES HTG/STBY PITOT/EMER SPLY	7DA	L05
122VU	C/B-PROBES HTG/STBY STAT	8DA	M05
122VU	C/B-PROBES HTG/CAUTION/STBY	9DA	N04
122VU	C/B-PROBES HTG/F/O/STAT	10DA	P04
122VU	C/B-PROBES HTG/CAUTION/CAPT	13DA	N05
122VU	C/B-PROBES HTG/CAPT/ALPHA	17DA	L02
122VU	C/B-PROBES HTG/CAPT/PITOT	19DA	M04
122VU	C/B-PROBES HTG/STBY PITOT/NORM SPLY	57DA	L04
122VU	C/B-PROBES HTG/F/O/TAT	60DA	P03

4. Procedure

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

SUBTASK 341XXX-50000010003

Ref. Fig. Probes Location

A. Functional Test of the ADC1 (ADC2) Pressure System

NOTE: Test described concerns captain's system, for first officer's system test, refer to information given in between parentheses.

(1) Job Set-up

(a) On the CAPT (F/O) instrument panel, on the altimeter of the panel 3VU (5VU):

1 Turn the BARO knob and select the standard pressure of 1013 mbar (29.914 in.Hg).

(b) On the captain's (first officer's) static probe and captain's (first officer's) pitot probe, connect the CALIBRATION - PITOT STATIC (1811GA465) with the

applicable pitot test adapter:
- For the Thales pitot static probe: P22942M1-4 (part of KIT-ACCESSORIES - AIR DATA (ATR42-612)).
- For the Rosemount pitot static probes : PITOT TEST ADAPTOR (P74418-4).

(c) Install the protective covers 33410HB-125 (part of KIT-ACCESSORIES - AIR DATA (ATR42-612)) on the captain's (first officer's) static probe on opposite side.

(d) Select a barometric setting of 1013 mbar (29.914 in.Hg) on CALIBRATION - PITOT STATIC altimeter.

(e) Below the wing root, remove temperature probe Ref. MP ATR-A-34-11-10-00ZZZ-520Z-A.

1 Disconnect electrical connector:

a Connect a DECADE RESISTOR BOX in between the pins J and E of the movable connector.

b Select a resistance of 500 ohms.

(f) On the Captain Console, on the CAPT SWITCHING section of panel 2VU/VM:

1 Make sure that ADC switch is not pushed.

Ref. Fig. Table of Values for ADC1 (ADC2) System

(2) Test:

(a) With CALIBRATION - PITOT STATIC and DECADE RESISTOR BOX, select the values given in the table in figure:

1 Make sure that the values from captain's (first officer's) PFD and EWD are in tolerances given in the table in figure.

(b) With CALIBRATION - PITOT STATIC, select:
- H (P) altitude related to the initial conditions (static pressure = ambient pressure)
- VC speed = 0
- During this operation, vertical speed must not be more than 6000 ft/min (110 Km/h).

(c) On the CAPT (F/O) instrument panel, on the index control panel of 3VU (5VU), with the BARO SET knob, select 1013 mbar (29.914 in.Hg) and record the altitude (ground altitude) that comes into view. Select 1040 mbar (30.711 in.Hg):

1 Make sure that the difference between the altitude indication and altitude recorded before is: 723 -16/+16 ft. (220 -5/+5 m) (correct tolerance for altitude indications below 10000 ft. (3048 m)).

(d) On the CAPT (F/O) instrument panel, on the index control panel of 3VU (5VU):

1 With the BARO SET knob, select 1013 mbar (29.914 in.Hg) in barometric setting counter display window. Captain's (first officer's) PFD shows the ground altitude.

(3) Close-up:

(a) Remove DECADE RESISTOR BOX and connect movable connector and install temperature probes Ref. MP ATR-A-34-11-10-00ZZZ-720Z-A.

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

SUBTASK 341XXX-50000020003

B. Functional Test of the Standby Pressure System

Ref. Fig. Table of Values for Standby Air Data System

(1) Procedure:

(a) On the standby static probe and standby pitot probe, connect the CALIBRATION - PITOT STATIC (1811GA465) with the applicable pitot test adapter:
- For the Thales pitot static probe: P22942M1-4 (part of KIT-ACCESSORIES - AIR DATA (ATR42-612).
- For the Rosemount pitot static probes: PITOT TEST ADAPTOR (P74418-4).

(b) Install the protective covers 33410HB-125 (part of KIT-ACCESSORIES - AIR DATA (ATR42-612) on the standby static probe on opposite side.

(c) On CALIBRATION - PITOT STATIC altimeter, select a barometric setting of 1013 mbar (29.914 in.Hg) and select and HP altitude of 0 ft. (0 m).

(2) Test:

(a) On the center instrument panel, on the integrated electronic standby instrument (IESI) of panel 4VU:

1 Push the STD pushbutton to select the standard atmospheric pressure of 1013 mbar (29.914 in.Hg).

a Record the altitude (ground altitude) that comes into view.

b Turn the barometric correction knob to select 1000 mbar (29.53 in.Hg):
- Make sure that the difference between the altitude indication and altitude recorded before is -364 -25/+25 ft. (- 111 -8/+8 m) (correct tolerance for altitude indications below 2000 ft. (610 m)).

c Turn the barometric correction knob to select 1040 mbar (30.711 in.Hg):
- Make sure that the difference between the altitude indication and altitude recorded before is 723 -25/+25 ft. (220 -8/+8 m) (correct tolerance for altitude indications below 2000 ft. (610 m)).

d Push the STD pushbutton to select the standard atmospheric pressure of 1013 mbar (29.914 in.Hg). With CALIBRATION - PITOT STATIC, select the values given in the table in figure. Make sure that values from IESI are in tolerances given in the table in figure.

(b) With CALIBRATION - PITOT STATIC, select:
- HP altitude related to initial conditions (static pressure = ambient pressure)
- VC speed = 0
- During this operation, vertical speed must not be more than 6000 ft/min (110 Km/h).

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

SUBTASK 341XXX-50000030002

C. Functional Test of the Total Air Temperature System

(1) In zone 114, on the right side:

(a) Record the temperature around the total air temperature probe with the a THERMOMETER.

(2) On MFD, in the VCP window:

(a) Select the ENG OAT page of VCP PERF with MCP1 controls. Select TAT1.

(3) On the Captain Console, on the CAPT SWITCHING section of panel 2VU/VM:

(a) Push the ADC pushbutton.

(b) On the EWD, in PERMANENT DATA window:

1 Make sure that static temperature is same as the indication on thermometer at +3 deg.C (37 deg.F)or -3 deg.C (27 deg.F).

(4) On MFD1, in VCP window:

(a) Select the ENG OAT page of VCP PERF with MCP2 controls. Select TAT2.

(5) On the Captain Console, on the CAPT SWITCHING section of panel 2VU/VM:

(a) Push the ADC pushbutton.

(b) On the EWD, in PERMANENT DATA window:

1 Make sure that static temperature is same as the indication on thermometer at +3 deg.C (37 deg.F) or -3 deg.C (27 deg.F).

ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

SUBTASK 341XXX-50000040003

D. Leakage Test of Air Data System

Ref. Fig. Probes Location

(1) Leakage test of captain air data systems:

(a) On the captain static probe and captain pitot probe, connect the CALIBRATION - PITOT STATIC (1811GA465) with the applicable pitot test adapter:
- For the Thales pitot static probe: P22942M1-4 (part of KIT-ACCESSORIES - AIR DATA (ATR42-612).
- For the Rosemount pitot static probes: PITOT TEST ADAPTOR (P74418-4).

(b) Install the protective covers 33410HB-125 (part of KIT-ACCESSORIES - AIR DATA (ATR42-612) on the captain static probe on opposite side.

(c) On the CAPT (F/O) instrument panel, on the index control panel of panel 3VU (5VU):

1 With the BARO SET knob, select the standard atmospheric pressure 1013 mbar (29.914 in.Hg).

(d) On the central instrument panel, on the standby altimeter of panel 4VU:

1 With the BARO SET knob, select the standard atmospheric pressure 1013 mbar (29.914 in.Hg).

(e) On CALIBRATION - PITOT STATIC altimeter:

1 Select 1013 mbar (29.914 in.Hg).

(f) On the central instrument panel, on the integrated electronic standby instrument (IESI) of panel 4VU:

1 Push the STD pushbutton to select the standard atmospheric pressure 1013 mbar (29.914 in.Hg).

(g) On the air pressurization unit altimeter:

1 Select the standard atmospheric pressure 1013 mbar (29.914 in.Hg).

(h) On CALIBRATION - PITOT STATIC, close the CROSS BLEED CONTROL VALVE and PRESSURE VENT valve.

(i) Select a speed of 200 kt (338 ft/s) with PRESSURE CONTROL valve of CALIBRATION - PITOT STATIC.

(j) Close the PRESSURE CONTROL valve.

(k) On captain PFD, after two minutes, make sure that leakage rate is below 2 kt (3.38 ft/s).

(l) Open the vent valve to set the speed on air data instrument again.

(m) On the CALIBRATION - PITOT STATIC, close the VACUUM VENT valve.

(n) With VACUUM CONTROL valve, select an altitude of 15000 ft. (4572 m) and make sure that the vertical speed is not more than 6000 ft/min (110 Km/h).

1 During the check, make sure that as the static pressure increases the speed increases.

(o) Close the VACUUM CONTROL valve.

(p) On captain PFD, after two minutes, make sure that leakage rate is below 100 ft/min (1.83 Km/h).

(q) With PRESSURE VENT valve, set the altitude again and make sure that the vertical speed is not more than 6000 ft/min (110 Km/h).

(r) On the CALIBRATION - PITOT STATIC, open the VACUUM VENT valve.

(s) Remove blank from the captain right static probe.

(2) Leakage test of first officer air data systems:

(a) Do test Ref. D.(1) with the first officer system equipment:

1 See correspondence table given in Ref. D.(4).

(3) Leakage test of standby air data systems.

(a) Do test Ref. D.(1) with the standby air data system equipment:

1 See correspondence table given in Ref. D.(4).

(4) Correspondence table:

	CAPTAIN	FIRST OFFICER	STANDBY
PITOT PROBE	LEFT 55DA	RIGHT 48DA	51DA
RIGHT STATIC PROBE	16DA	12DA	14DA
LEFT STATIC PROBE	37DA	39DA	35DA

Table - Correspondence table

ON A/C MSN ALL

5. Close-Up

SUBTASK 341XXX-10200010001

A. Close Up

(1) Make sure that blanking equipment has been removed from static probes. Disconnect pitot/static calibrator and remove accessories air data kit from pitot and static probes.

(2) Remove safety clip(s) and tag(s) and close circuit breaker(s) opened before.

(3) Install protective covers on probes.

(4) Put the aircraft back to its initial configuration:

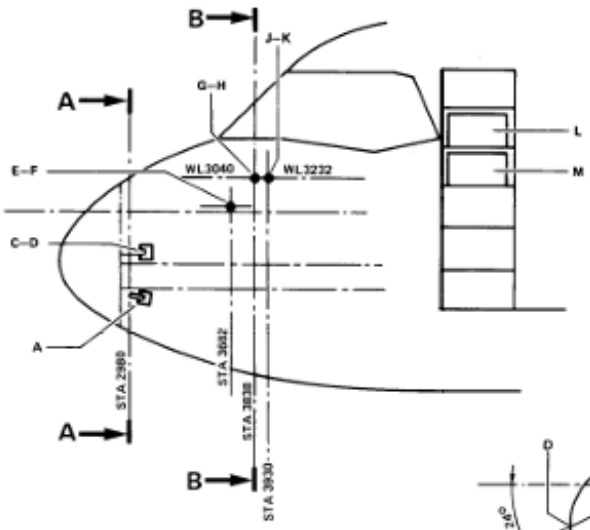
(5) De-energize the aircraft electrical AC, DC and ACW circuits:Ref. MP ATR-A-24-4X-XX-00ZZZ-561Z-A.

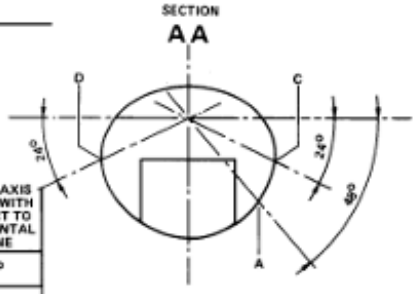
(6) Make sure that the work area is clean and clear of tools and other items.

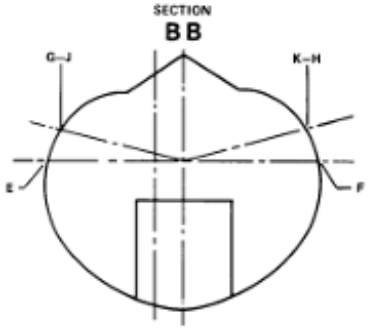
 Figure ICN-ATR-A-273200-A-FB429-00U3I-A-001-01 SHEET 1/1 - Probes Location

 Figure ICN-ATR-A-341000-A-FB429-00U61-A-002-01 SHEET 1/1 - Table of Values for ADC1 (ADC2) System

 Figure ICN-ATR-A-341000-A-FB429-00U62-A-002-01 SHEET 1/1 - Table of Values for Standby Air Data System







ITEM	DESIGNATION	SYSTEM	ELECT. ITEM	PROBE AXIS ANGLE WITH RESPECT TO HORIZONTAL PLANE
A	PITOT PROBE	STBY	51DA	+ 11°
C	PITOT PROBE	CAPT	55DA	+ 8°
D	PITOT PROBE	F/O	48DA	+ 8°
E	STATIC PROBE	STBY	14DA	
F	STATIC PROBE	STBY	35DA	
G	STATIC PROBE	CAPT	16DA	
H	STATIC PROBE	F/O	39DA	
J	STATIC PROBE	F/O	12DA	
K	STATIC PROBE	CAPT	37DA	
L	ADC 2	F/O	1FL2	
M	ADC 1	CAPT	1FL1	

ICN-ATR-A-273200-A-FB429-00U3I-A-001-01

Figure ICN-ATR-A-273200-A-FB429-00U3I-A-001-01 (SHEET 1) - Probes Location

SELECTED VALUES			RESULT											
PRESSURE GENERATOR		DECADE BOX	ADC1					ADC2						
Hp	Vc	R	Hp	IAS	TAS	TAT	SAT	Hp	IAS	TAS	TAT	SAT
(ft)	(kts)	(ohm)	(ft)	(kts)	(kts)	(°C)	(°C)	(ft)	(kts)	(kts)	(°C)	(°C)
0	100	543	- 30 ±20	95 ±3	101 ±9*	22 ±3*	20±3 *	- 30 ±20	99 ±3	101 ±9*	22 ±3*	20±3 *
5000	140	515	5000 ±37	140 ±3	151 ±6	8 ±3	5 ±8	5000 ±37	140 ±3	151 ±6	8 ±3	5 ±8
25000	220	459	24990±155	220 ±4.5	322 ±6	-21 ±3	-34 ±3	24990±155	220 ±4.5	322 ±6	-21 ±3	-34 ±3
15000	200	488	14990±105	200 ±4	250 ±6	-6 ±3	-15 ±3	14990±105	200 ±4	250 ±6	-6 ±3	-15 ±3

* MAKE CERTAIN THAT PROBE HEATING IN "OFF" POSITION.

ICN-ATR-A-341000-A-FB429-00U61-A-002-01

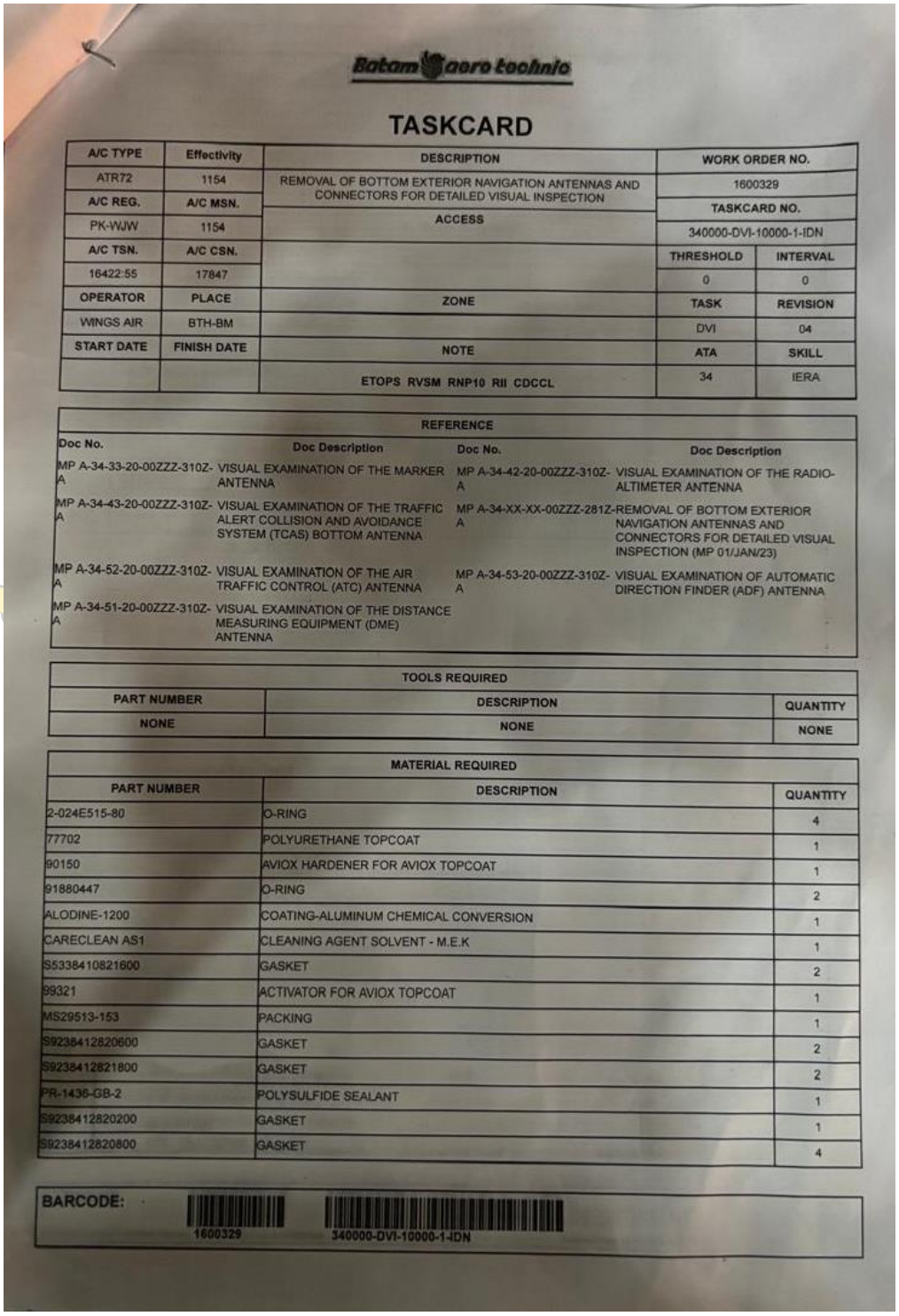
Figure ICN-ATR-A-341000-A-FB429-00U61-A-002-01 (SHEET 1) - Table of Values for ADC1 (ADC2) System

SELECTED VALUES		RESULT	
PRESSURE GENERATOR			
Hp	Vc	H	IAS
(ft)	(KTS)	(ft)	(KTS)
0	0	0 ± 28	30
4000	140	4000 ± 50	140 ± 4
25000	220	25000 ± 220	220 ± 5
15000	200	15000 ± 141	200 ± 5

ICN-ATR-A-341000-A-FB429-00U62-A-002-01

Figure ICN-ATR-A-341000-A-FB429-00U62-A-002-01 (SHEET 1) - Table of Values for Standby Air Data System

Lampiran 3. Task Card Removal of Bottom Exterior Navigation Antennas and Connectors for Detailed Visual Inspection



Batam Aero Technic

TASKCARD

A/C TYPE	Effectivity	DESCRIPTION	WORK ORDER NO.	
ATR72	1154	REMOVAL OF BOTTOM EXTERIOR NAVIGATION ANTENNAS AND CONNECTORS FOR DETAILED VISUAL INSPECTION	1600329	
A/C REG.	A/C MSN.		TASKCARD NO.	
PK-WJW	1154	ACCESS	340000-DVI-10000-1-IDN	
A/C TSN.	A/C CSN.		THRESHOLD	INTERVAL
16422:55	17847		0	0
OPERATOR	PLACE	ZONE	TASK	REVISION
WINGS AIR	BTH-BM		DVI	04
START DATE	FINISH DATE	NOTE	ATA	SKILL
		ETOPS RVSM RNP10 RII CDCCL	34	IERA

REFERENCE			
Doc No.	Doc Description	Doc No.	Doc Description
MP A-34-33-20-00ZZZ-310Z-A	VISUAL EXAMINATION OF THE MARKER ANTENNA	MP A-34-42-20-00ZZZ-310Z-A	VISUAL EXAMINATION OF THE RADIO-ALTIMETER ANTENNA
MP A-34-43-20-00ZZZ-310Z-A	VISUAL EXAMINATION OF THE TRAFFIC ALERT COLLISION AND AVOIDANCE SYSTEM (TCAS) BOTTOM ANTENNA	MP A-34-XX-XX-00ZZZ-281Z-A	REMOVAL OF BOTTOM EXTERIOR NAVIGATION ANTENNAS AND CONNECTORS FOR DETAILED VISUAL INSPECTION (MP 01/JAN/23)
MP A-34-52-20-00ZZZ-310Z-A	VISUAL EXAMINATION OF THE AIR TRAFFIC CONTROL (ATC) ANTENNA	MP A-34-53-20-00ZZZ-310Z-A	VISUAL EXAMINATION OF AUTOMATIC DIRECTION FINDER (ADF) ANTENNA
MP A-34-51-20-00ZZZ-310Z-A	VISUAL EXAMINATION OF THE DISTANCE MEASURING EQUIPMENT (DME) ANTENNA		

TOOLS REQUIRED		
PART NUMBER	DESCRIPTION	QUANTITY
NONE	NONE	NONE

MATERIAL REQUIRED		
PART NUMBER	DESCRIPTION	QUANTITY
2-024E515-80	O-RING	4
77702	POLYURETHANE TOPCOAT	1
90150	AVIOX HARDENER FOR AVIOX TOPCOAT	1
91880447	O-RING	2
ALODINE-1200	COATING-ALUMINUM CHEMICAL CONVERSION	1
CARECLEAN AS1	CLEANING AGENT SOLVENT - M.E.K	1
S5338410821600	GASKET	2
99321	ACTIVATOR FOR AVIOX TOPCOAT	1
MS29513-153	PACKING	1
S9238412820600	GASKET	2
S9238412821800	GASKET	2
PR-1436-GB-2	POLYSULFIDE SEALANT	1
S9238412820200	GASKET	1
S9238412820800	GASKET	4

BARCODE: 1600329 340000-DVI-10000-1-IDN

Batam aero technic

TASKCARD

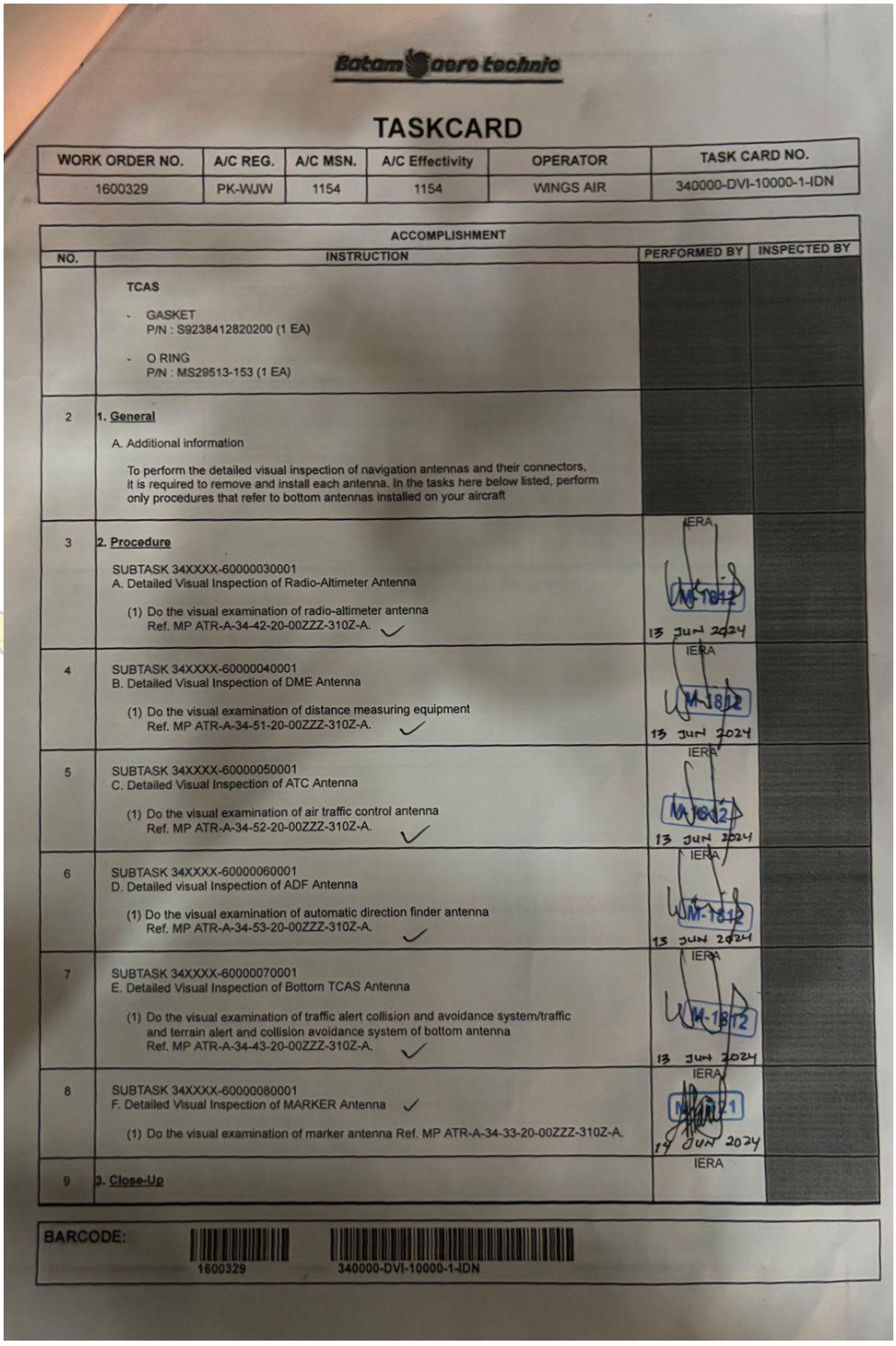
WORK ORDER NO.	A/C REG.	A/C MSN.	A/C Effectivity	OPERATOR	TASK CARD NO.
1600329	PK-WJW	1154	1154	WINGS AIR	340000-DVI-10000-1-IDN

MATERIAL REQUIRED		
PART NUMBER	DESCRIPTION	QUANTITY
19-12-26768-1287	MOUNTING GASKET	1

ACCOMPLISHMENT

NO.	INSTRUCTION	PERFORMED BY	INSPECTED BY
1	**ON A/C ALL MPD 340000-DVI-10000-1 **NAVIGATION** REMOVAL OF BOTTOM EXTERIOR NAVIGATION ANTENNAS AND CONNECTORS FOR DETAILED VISUAL INSPECTION **TECHNICAL DATA :** - CLEANING AGENT 11-001 P/N : CARECLEAN AS1 - SEALANT (09-016A) 09-016 P/N : PR-1436-GB-2 - TOUCH-UP PAINT 16-018 (OBSOLETE) CHANGE WITH POLYURETHANE TOPCOATS P/N: 77702 - PROTECTIVE COMPOUND 13-002 P/N : ALODINE-1200 **RADIO ALTIMETER** - GASKET (344220) **(ON AC 71-77, 80-102, 108-116)** P/N : S5338410821600 (2 EA) - O RING (344220) P/N : 91880447 (2 EA) - GASKET (344220) **(ON AC 067-070)** P/N : S9238412821800 (2 EA) **DME** - O RING P/N : 2-024E515-80 **(ON AC 051-070 NEED 1 EA), (ON AC 071-77, 80-102, 108-116 NEED 2EA)** - GASKET **(ON AC 071-77, 80-102, 108-116)** P/N : S9238412820800 (2 EA) **ATC** - O RING P/N : 2-024E515-80 (2 EA) - GASKET P/N : S9238412820800 (2 EA) **ADF** - GASKET **(ON AC 071-77, 80-102, 108-116)** P/N : S9238412820600 (2 EA) - MOUNTING P/N : 19-12-26768-128 (1 EA)		

BARCODE: 1600329 340000-DVI-10000-1-IDN



Batam Aero Technic

TASKCARD

WORK ORDER NO.	A/C REG.	A/C MSN.	A/C Effectivity	OPERATOR	TASK CARD NO.
1600329	PK-WJW	1154	1154	WINGS AIR	340000-DVI-10000-1-IDN

ACCOMPLISHMENT			
NO.	INSTRUCTION	PERFORMED BY	INSPECTED BY
	TCAS - GASKET P/N : S9238412820200 (1 EA) - O RING P/N : MS29513-153 (1 EA)		
2	1. General A. Additional information To perform the detailed visual inspection of navigation antennas and their connectors, it is required to remove and install each antenna. In the tasks here below listed, perform only procedures that refer to bottom antennas installed on your aircraft		
3	2. Procedure SUBTASK 34XXXX-60000030001 A. Detailed Visual Inspection of Radio-Altimeter Antenna (1) Do the visual examination of radio-altimeter antenna Ref. MP ATR-A-34-42-20-00ZZZ-310Z-A. ✓	IERA M-1812 13 JUN 2024	
4	SUBTASK 34XXXX-60000040001 B. Detailed Visual Inspection of DME Antenna (1) Do the visual examination of distance measuring equipment Ref. MP ATR-A-34-51-20-00ZZZ-310Z-A. ✓	IERA M-1812 13 JUN 2024	
5	SUBTASK 34XXXX-60000050001 C. Detailed Visual Inspection of ATC Antenna (1) Do the visual examination of air traffic control antenna Ref. MP ATR-A-34-52-20-00ZZZ-310Z-A. ✓	IERA M-1812 13 JUN 2024	
6	SUBTASK 34XXXX-60000060001 D. Detailed visual Inspection of ADF Antenna (1) Do the visual examination of automatic direction finder antenna Ref. MP ATR-A-34-53-20-00ZZZ-310Z-A. ✓	IERA M-1812 13 JUN 2024	
7	SUBTASK 34XXXX-60000070001 E. Detailed Visual Inspection of Bottom TCAS Antenna (1) Do the visual examination of traffic alert collision and avoidance system/traffic and terrain alert and collision avoidance system of bottom antenna Ref. MP ATR-A-34-43-20-00ZZZ-310Z-A. ✓	IERA M-1812 13 JUN 2024	
8	SUBTASK 34XXXX-60000080001 F. Detailed Visual Inspection of MARKER Antenna ✓ (1) Do the visual examination of marker antenna Ref. MP ATR-A-34-33-20-00ZZZ-310Z-A.	IERA M-1821 14 JUN 2024	
9	3. Close-Up	IERA	

BARCODE: 1600329 340000-DVI-10000-1-IDN

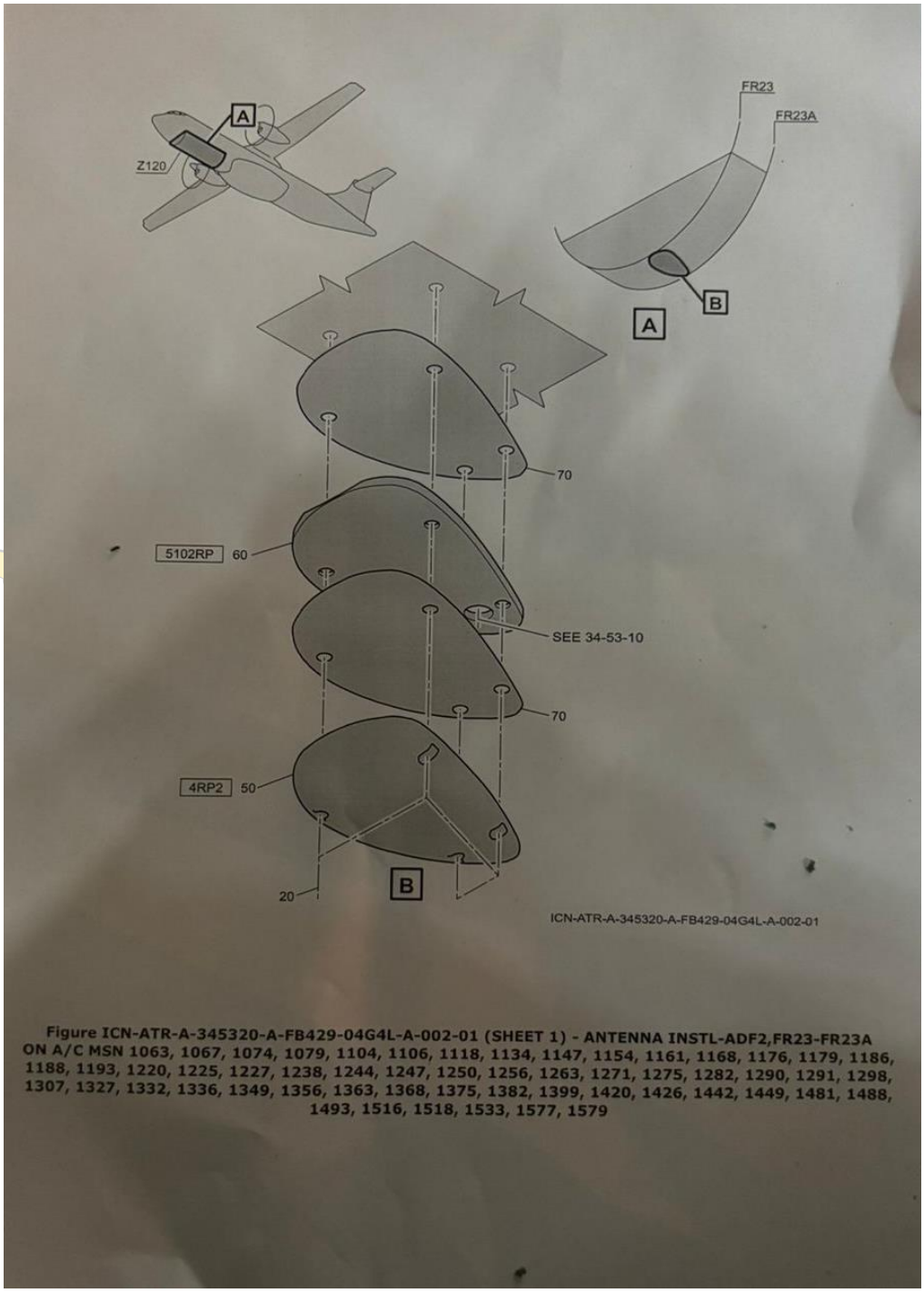


Figure ICN-ATR-A-345320-A-FB429-04G4L-A-002-01 (SHEET 1) - ANTENNA INSTL-ADF2,FR23-FR23A ON A/C MSN 1063, 1067, 1074, 1079, 1104, 1106, 1118, 1134, 1147, 1154, 1161, 1168, 1176, 1179, 1186, 1188, 1193, 1220, 1225, 1227, 1238, 1244, 1247, 1250, 1256, 1263, 1271, 1275, 1282, 1290, 1291, 1298, 1307, 1327, 1332, 1336, 1349, 1356, 1363, 1368, 1375, 1382, 1399, 1420, 1426, 1442, 1449, 1481, 1488, 1493, 1516, 1518, 1533, 1577, 1579

Lampiran 4. ATR-A-32-42-50-00001-720A-A – Installation of the MLG Brake

CUSTOMIZATION	AIRCRAFT TYPES	DOCTYPES	REVISION DATE	TITLE	TAIL NUMBER - MSN
IW7	ATR72	Line Maintenance	01-Jan-2024	ATR-A-32-42-50-00001-720A-A - Installation of the MLG Brake	PK-WHI - 01263

DM status information

DM Code	: ATR-A-32-42-50-00001-720A-A
Airline	: IW7
Issue Number	: 006
Issue Date	: Jan 01/24
Breakdown Title	: SYSTEM COMPONENTS - MLG ZONE
DM Title	: Installation of the MLG Brake
Applicability	: ***ON A/C MSN ALL***
Aircraft Type	: ATR72
DM Producer	: FB429
Language	: Simplified English
Copyright	: ATR-A-00-65-XX-10000-021A-D

ON A/C MSN ALL
TASK ATR-A-32-42-50-00001-720A-A
Installation of the MLG Brake
FIN: 6631GG 6632GG 6633GG 6634GG

WARNING: INSTALL LANDING GEAR GROUND LOCKING PINS.
SET FLAPS AND LANDING GEAR CONTROL LEVERS IN ACCORDANCE WITH ACTUAL EQUIPMENT POSITION.

WARNING: CLEAR THE PATH OF LANDING GEARS AND INSTALL SAFETY BARRIERS.

1. General
   A. Reason for the Job
      Self Explanatory
2. Job Set-Up Information
   A. Work Zones.

ZONE	ZONE DESCRIPTION
195	HYDRAULIC COMPARTMENT
210	FLIGHT AND FORWARD AVIONICS COMPARTMENT
731	LH MAIN LANDING GEAR LEG
741	RH MAIN LANDING GEAR LEG

B. Fixtures, Tools, Test and Support Equipment.

REFERENCE	QTY	DESIGNATION
99-9028-6024	AR	WHEEL CHOCKS

C. Spare Parts.

FIG. ITEM	DESIGNATION	ILLUSTRATION	IPD REFERENCE
1	BRAKE	Removal/Installation of the MLG Brake	ATR-A-32-42-50-28000-A ITEM 010

D. Referenced Information.

REFERENCE	DESIGNATION
CMM 324944 (F6137)	
ATR-A-07-12-XX-00ZZZ-172Z-A	MP - Jacking of the Main Landing Gear for Wheel Replacement
ATR-A-12-37-32-00ZZZ-720Z-A	MP - Installation of the Main Landing Gear (MLG) Wheel/Tire Assembly
ATR-A-32-42-XX-00ZZZ-231Z-A	MP - Bleeding of the Brake HP Line
ATR-A-32-42-XX-00ZZZ-320Z-A	MP - lOperational Test of the Normal Braking
ATR-A-32-42-XX-01ZZZ-320Z-A	MP - Operational Test of the Brake Overtemperature System
ATR-A-32-42-50-01ZZZ-720Z-A	MP - Installation of the Temperature Transducer

3. Job Set-Up

SUBTASK 324250-10100610001

A. Make sure that the circuit breakers opened during equipment removal are open, safetied and tagged.

SUBTASK 324250-10100600001

B. Make sure that the warning notices installed during equipment removal are present.

SUBTASK 324250-10100030003

C. Aircraft Maintenance Configuration

(1) Make sure that the MLG is lifted on jacks Ref. MP ATR-A-07-12-XX-00ZZZ-172Z-A.

(2) Make sure that the accesses you got during equipment removal are opened/removed.

(3) Make sure that the safety stop on the EMER/PARK brake accumulator-discharge-valve is removed and the hydraulic pressure is released.

(4) Make sure that the brake accumulator gauge shows the nitrogen precharge only.

4. Procedure

SUBTASK 324250-40100370008

Ref. Fig. Removal/Installation of the MLG Brake

CAUTION: THE INVERSION OF THE BRAKE PIPES CAN SEVERELY DECREASE THE PERFORMANCE OF THE BRAKING SYSTEM.

A. Installation of the MLG Brake

(1) Clean and do a visual inspection of the component interface and the adjacent area.

(2) Before you install the MLG brake (1) on the aircraft, do as follows:

(a) Make sure that the pipes (2) routing is as shown in the figure.

(b) Examine the position of the brake hydraulic inlet port related to the connection on the swinging lever.

(3) If the inlet port of the MLG brake (1) is not in the correct position, align it Ref. CMM 324944 (F6137).

(4) Install the MLG brake (1) until the correct hole attaches to the trailing-arm torque spigot.

(5) Connect the hydraulic pipes (2) to the brake inlet port.

SUBTASK 324250-40100450001

B. Install the temperature transducer Ref. MP ATR-A-32-42-50-01ZZZ-720Z-A.

SUBTASK 324250-40100060001

C. Install the MLG wheel/tire assembly Ref. MP ATR-A-12-37-32-00ZZZ-720Z-A.

SUBTASK 324250-50000010002

D. Preparation for Test

(1) Lift the MLG on jacks Ref. MP ATR-A-07-12-XX-00ZZZ-172Z-A.

(2) Put the WHEEL CHOCKS (99-9028-6024) against the MLG wheels.

(3) Install the safety stop to the EMER/PARK brake accumulator-discharge-valve.

(4) Close any access opened/removed before.

(5) Remove the warning notice(s) used during this procedure.

(6) Remove safety clip(s) and tag(s) and close circuit breaker(s) opened before.

SUBTASK 324250-50000020001

E. Test

(1) Bleed the brake HP line Ref. MP ATR-A-32-42-XX-00ZZZ-231Z-A.

(2) Do the operational test of the normal braking Ref. MP ATR-A-32-42-XX-00ZZZ-320Z-A.

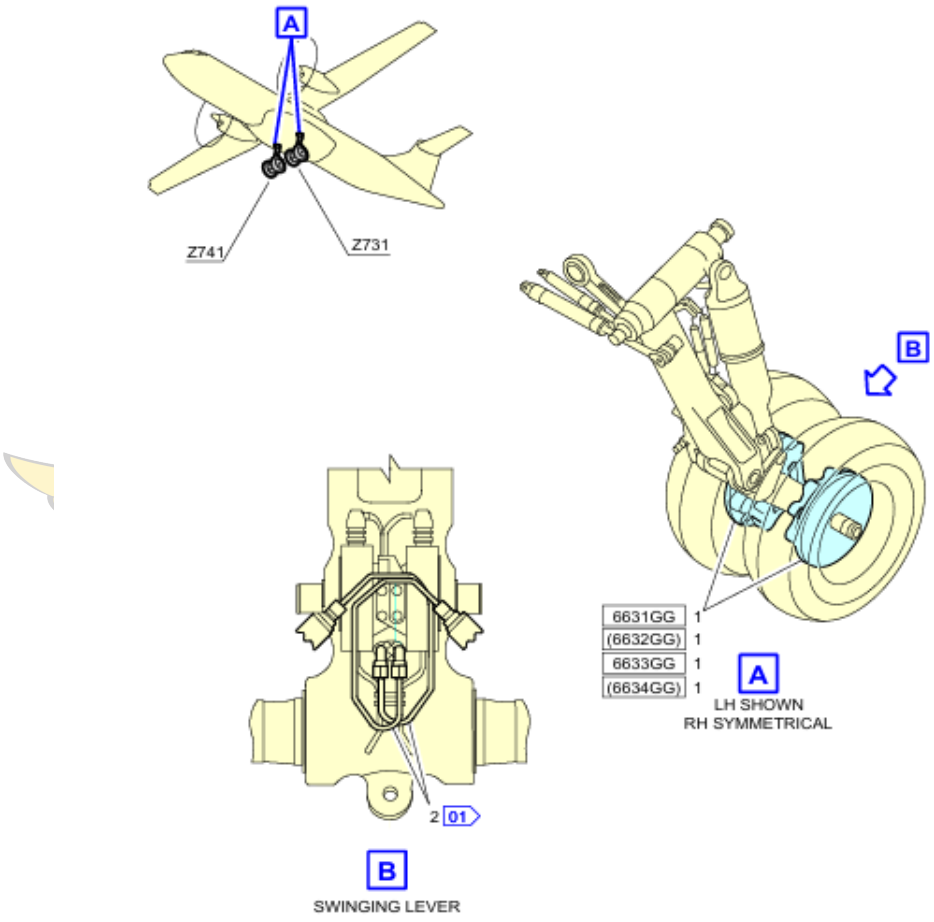
(3) Do the operational test of the brake overtemperature system Ref. MP ATR-A-32-42-XX-01ZZZ-320Z-A.

5. Close-Up

SUBTASK 324250-10200010001

A. Make sure that the work area is clean and clear of tools and other items.

Figure ICN-ATR-A-324250-A-FB429-00TGX-A-003-01 SHEET 1/1 - Removal/Installation of the MLG Brake



CAUTION:

01 DO NOT REMOVE THE HYDRAULIC PIPE DURING BRAKE ASSY REMOVAL AND/OR INSTALLATION TASK.

ICN-ATR-A-324250-A-FB429-00TGX-A-003-01

Figure ICN-ATR-A-324250-A-FB429-00TGX-A-003-01 (SHEET 1) - Removal/Installation of the MLG Brake

Lampiran 5. ATR-A-12-22-32-00001-240A-A – Lubrication of the MLG and the MLG Doors

CUSTOMIZATION	AIRCRAFT TYPES	DOCTYPES	REVISION DATE	TITLE	TAIL NUMBER - MSN
IW7	ATR72	Line Maintenance	01-Jan-2024	ATR-A-12-22-32-00001-240A-A - Lubrication of the MLG and the MLG Doors	PK-WHI - 01263

DM status information

DM Code	: ATR-A-12-22-32-00001-240A-A
Airline	: IW7
Issue Number	: 005
Issue Date	: Jul 01/22
Breakdown Title	: LANDING GEAR
DM Title	: Lubrication of the MLG and the MLG Doors
Applicability	: ***ON A/C MSN ALL***
Aircraft Type	: ATR72
DM Producer	: FB429
Language	: Simplified English
Copyright	: ATR-A-00-65-XX-10000-021A-D

ON A/C MSN ALL
TASK ATR-A-12-22-32-00001-240A-A
Lubrication of the MLG and the MLG Doors
FIN: 6509GM 6514GM

WARNING: MOST MATERIALS ARE DANGEROUS FOR YOUR HEALTH AND THE ENVIRONMENT (TOXIC, FLAMMABLE, EXPLOSIVE, IRRITANT...):
- OBEY THE MATERIAL MANUFACTURER INSTRUCTIONS AND THE LOCAL REGULATIONS.
- USE PROTECTIVE CLOTHING, GOGGLES AND GLOVES.
- ENSURE CORRECT AIRFLOW THROUGH THE WORK AREA.
- DO NOT BREATHE THE FUMES.
- DO NOT USE THESE MATERIALS NEAR SPARKS OR SOURCES OF HEAT.
- DO NOT APPLY MATERIALS OUTSIDE OF SPECIFIED AREAS.
- PREPARE AND USE ONLY THE NECESSARY MATERIAL QUANTITY, USE THE APPLICABLE PROCEDURE TO DISCARD THE REMAINING MATERIAL.

1. General

A. Reason for the Job
Ref. MPD ATR72_122232-LUB-10000-1
Ref. MPD ATR72_122232-LUB-10005-1
Ref. MPD ATR72_122232-LUB-10030-1

B. Additional information

NOTE: In some cases, the removal of the MLG wheels from the wheel axle will possibly not be easy if A/C operations lead to:
- High number of cycles between tires changes

- Long lead time between tires changes.
In such case, in order to prevent possible wheel seizure on axle, we recommend to remove and install the MLG wheels Ref. MP ATR-A-12-37-32-00ZZZ-520Z-A and Ref. MP ATR-A-12-37-32-00ZZZ-720Z-A for the wheel axle lubrication.

2. Job Set-Up Information

A. Work Zones.

ZONE	ZONE DESCRIPTION
193	MAIN LANDING GEAR WELL
194	MAIN LANDING GEAR WELL
730	LH MAIN LANDING GEAR
740	RH MAIN LANDING GEAR

B. Fixtures, Tools, Test and Support Equipment.

REFERENCE	QTY	DESIGNATION
No Specific	AR	WARNING NOTICE
No Specific	1	PUMP - HAND GREASE
No Specific	1	SPATULA

C. Consumable Materials.

REFERENCE	QTY	DESIGNATION
04004B	AR	Synthetic grease high pressure
04007A	AR	Molybdenum Disulfide Powder
09002D	AR	Polysulfide sealant fast curing
11024	AR	Degreasing Solvent
No specific	AR	Cotton Rag

D. Referenced Information.

REFERENCE	DESIGNATION
ATR-A-12-37-32-00ZZZ-520Z-A	MP - Removal of the Main Landing Gear (MLG) Wheel/Tire Assembly
ATR-A-12-37-32-00ZZZ-720Z-A	MP - Installation of the Main Landing Gear (MLG) Wheel/Tire Assembly

3. Job Set-Up

SUBTASK 122232-10100100001
A. On the center instrument panels, on the LDG GEAR section on the panel 404VU/VM, put a WARNING NOTICE to prevent landing gear operation.

4. Procedure

SUBTASK 122232-30000130001
A. General Lubrication Procedure

(1) Make sure that the grease nipples are in good condition.

NOTE: You can identify the grease nipple with a red mark around it.

(2) If the lubrication operation has removal and installation of a component, for the repair or replacement, you must do the lubrication procedure as follows:

(a) Make sure that you clean the hinge points with 11024 (Degreasing Solvent) and lubricate them before the MLG is operated.

(b) If there is high resistance on the PUMP - HAND GREASE during the lubrication procedure:

1 Examine the lubricating fittings and the related hinge points.

2 If you cannot find the cause of this resistance, remove and examine the hinge points.

(c) Put a sufficient quantity of grease into each lubrication fitting to fully remove all the used grease.

(d) Where possible, move the hinge in one direction and then back again during lubrication to fill the grease easily.

(e) Clean the lubrication fittings and the hinge points with a Cotton Rag to remove the unwanted grease.

NOTE: The lubrication fittings are of two types:
- MS 15001
- NAS 516-1A.

SUBTASK 122232-30000050004
Ref. Fig. Lubrication of the MLG Points

CAUTION: DO NOT USE AN ELECTRICAL OR PNEUMATIC TOOL.

B. Lubrication of the MLG
Ref. Fig. Lubrication of the MLG Side-Brace Points
Ref. Fig. Lubrication of the MLG Door Points

(1) Lubricate the MLG with 04004B (Synthetic grease high pressure).

NOTE: For this specific step, you can use the following material(s) as an alternative:
- 04004C(Synthetic grease high pressure).

NOTE: Do not mix the two greases.

(2) Lubricate the MLG/aircraft attachment points at the two grease lubrication fittings on the truss shear for MLG support bearings.

(3) Lubricate the MLG leg as follows:

(a) Lubricate the two grease lubrication fittings on the leg structure/trailing-arm attachment-pin.

(b) Lubricate the two grease lubrication fittings on the trailing arm, at the universal joint/trailing-arm attachment-pin.

(c) Lubricate the two grease nipples on the trailing arm, at the leg/trailing arm attachment-pin.

(4) Lubricate the MLG shock absorber as follows:

(a) Lubricate one grease lubrication fitting, at the shock-absorber/leg structure attachment-pin.

(b) Lubricate the two grease lubrication fittings, at the shock absorber/universal joint.

(5) Lubricate the MLG actuating cylinder at:

(a) One grease lubrication fitting-leg hinge-point.

(b) One grease lubrication fitting in aircraft pin attachment-point.

(6) Lubricate the MLG side brace as follows:

(a) Lubricate one grease lubrication fitting, at the main alignment-brace/aircraft-structure attachment-point.

(b) Lubricate one grease lubrication fitting, at main alignment-brace/leg attachment-point.

(c) Lubricate the two grease lubrication fittings, at the alignment-braces connection point.

(d) Lubricate the two grease lubrication fittings on the main alignment-brace/secondary-brace hinge-pin.

(e) Lubricate one grease lubrication fitting on the main alignment-brace/unlocking-actuator hinge-point.

(7) Lubricate the MLG brace secondary alignment as follows:

(a) Lubricate one grease lubrication fitting on the secondary alignment-brace/leg hinge-point.

(b) Lubricate one grease lubrication fitting on the bellcrank/alignment braces hinge-point.

(c) Lubricate one grease lubrication fitting on the secondary alignment-braces connection-point.

(d) Lubricate one grease lubrication fitting on the secondary alignment-brace/unlocking-actuator hinge-point.

(e) Lubricate one grease lubrication fitting on the secondary alignment-brace hinge-point.

SUBTASK 122232-30000060001
Ref. Fig. Lubrication of the MLG Door Points

CAUTION: DO NOT USE AN ELECTRICAL OR PNEUMATIC TOOL.

C. Lubrication of the MLG Doors

(1) Lubricate the MLG doors with 04004B (Synthetic grease high pressure).

(2) Make sure that all the points (1-2-3-4-5) are free from contamination, before you apply grease on the MLG door hinges, hinge pin, folding door hinges and the two ends of the MLG-door adjustable-rod attachment-link.

(3) Clean the MLG door hinges, hinge pin, folding door hinges and the two ends of the MLG-door adjustable-rod attachment-link with 11024 (Degreasing Solvent), before you apply grease.

(4) Lubricate the MLG door hinge, the hinge pin and the folding door hinges as follows:

(a) Lubricate the hinges (5), the hinge pin (1) and the folding door hinges (2) with grease formed from the 04004B (Synthetic grease high pressure), mixed with 5% of 04007A (Molybdenum Disulfide Powder).

(b) Increase the temperature of the 04004B (Synthetic grease high pressure) to get mixed and go into the hinge assembly.

(5) Lubricate the MLG-door-rod attachment link (3) and (4) with 04004B (Synthetic grease high pressure).

SUBTASK 122232-30000070001
Ref. Fig. Sealing Compound General-Visual-Inspection for Integrity
D. General Visual Inspection of U-Joint

(1) Make sure that the 09002D (Polysulfide sealant fast curing) bead around the two bushes are not removed. The possible conditions are as follows:

(a) The 09002D (Polysulfide sealant fast curing) is removed but the bushes are in their initial positions.

(b) The 09002D (Polysulfide sealant fast curing) is removed and the bushes are not in their initial positions.

(c) The 09002D (Polysulfide sealant fast curing) is not removed.

(2) Do the procedure related to the inspection results:

NOTE: Although the sealing compound bead has a crack, the positions of the bushes do not change. If there is a crack in the sealing compound bead, the sealing compound bead will not show that the bushes are moved. The sealing can show signs of crack because of its usual aging process. Thus, it is not necessary to replace the sealing bead that shows this specified sign given that the bushes are in their initial positions. If you are not sure, remove the sealing bead (refer the procedure below mentioned) for a better inspection or speak to messier-dowty or AI(R) product support.

(a) Remove the remaining used sealant with a SPATULA.

(b) Clean the parts with 11024 (Degreasing Solvent) and apply the 09002D (Polysulfide sealant fast curing) again.

(c) Speak to messier-dowty or AI(R) product support immediately for next instructions.

NOTE: In this condition, the aircraft is airworthy. Thus, it can fly while you wait for next instructions from messier-dowty or AI(R) product support.

(d) No other maintenance is necessary until the next check A.

5. Close-Up

SUBTASK 122232-10200020001

A. Close Up

(1) Remove all the fixtures, tools, test and support equipment used during this procedure.

(2) Make sure that the work area is clean and clear of tools and other items.

(3) Remove the warning notice(s) used during this procedure.

Figure ICN-ATR-A-122232-A-FB429-00TXS-A-002-01 SHEET 1/1 - Lubrication of the MLG Points

Figure ICN-ATR-A-122232-A-FB429-00TXU-A-002-01 SHEET 1/1 - Lubrication of the MLG Side-Brace Points

Figure ICN-ATR-A-122232-A-FB429-00TXX-A-002-01 SHEET 1/1 - Lubrication of the MLG Door Points

Figure ICN-ATR-A-122232-A-FB429-00TXY-A-002-01 SHEET 1/1 - Sealing Compound General-Visual-Inspection for Integrity

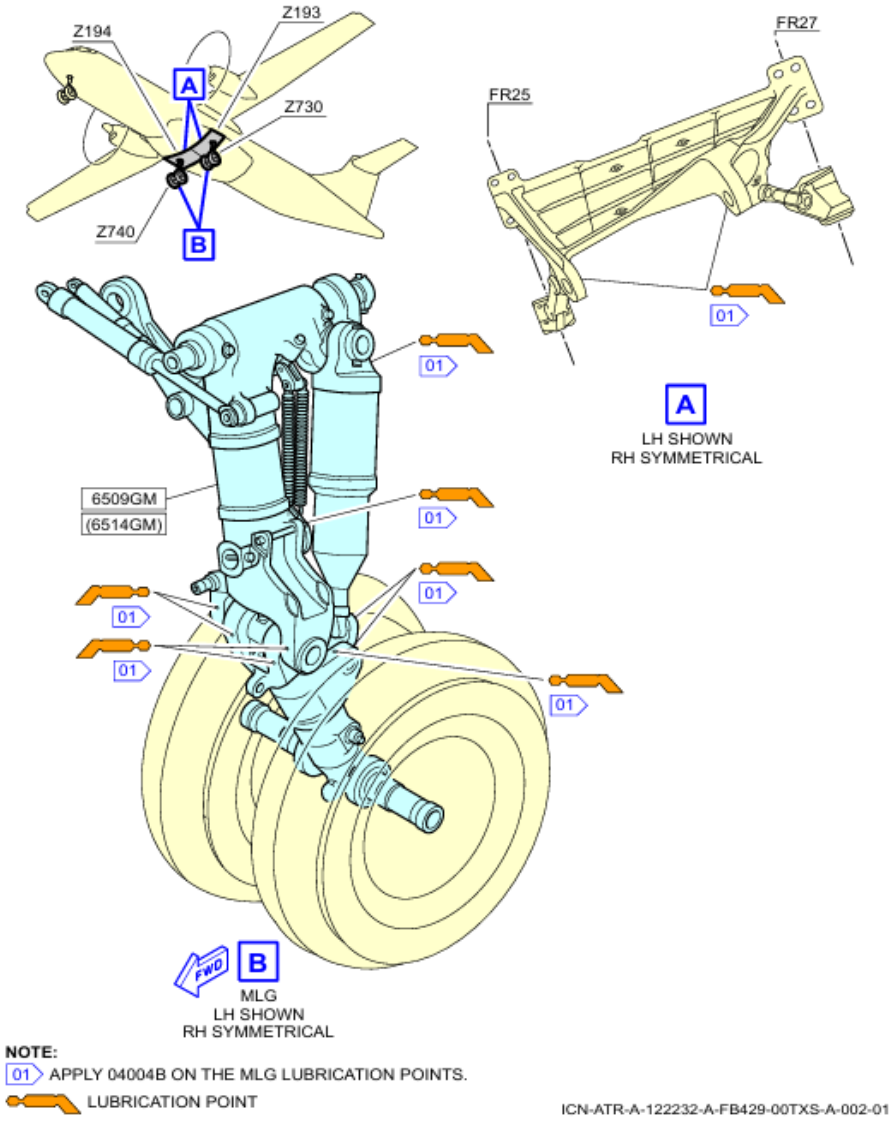


Figure ICN-ATR-A-122232-A-FB429-00TXS-A-002-01 (SHEET 1) - Lubrication of the MLG Points

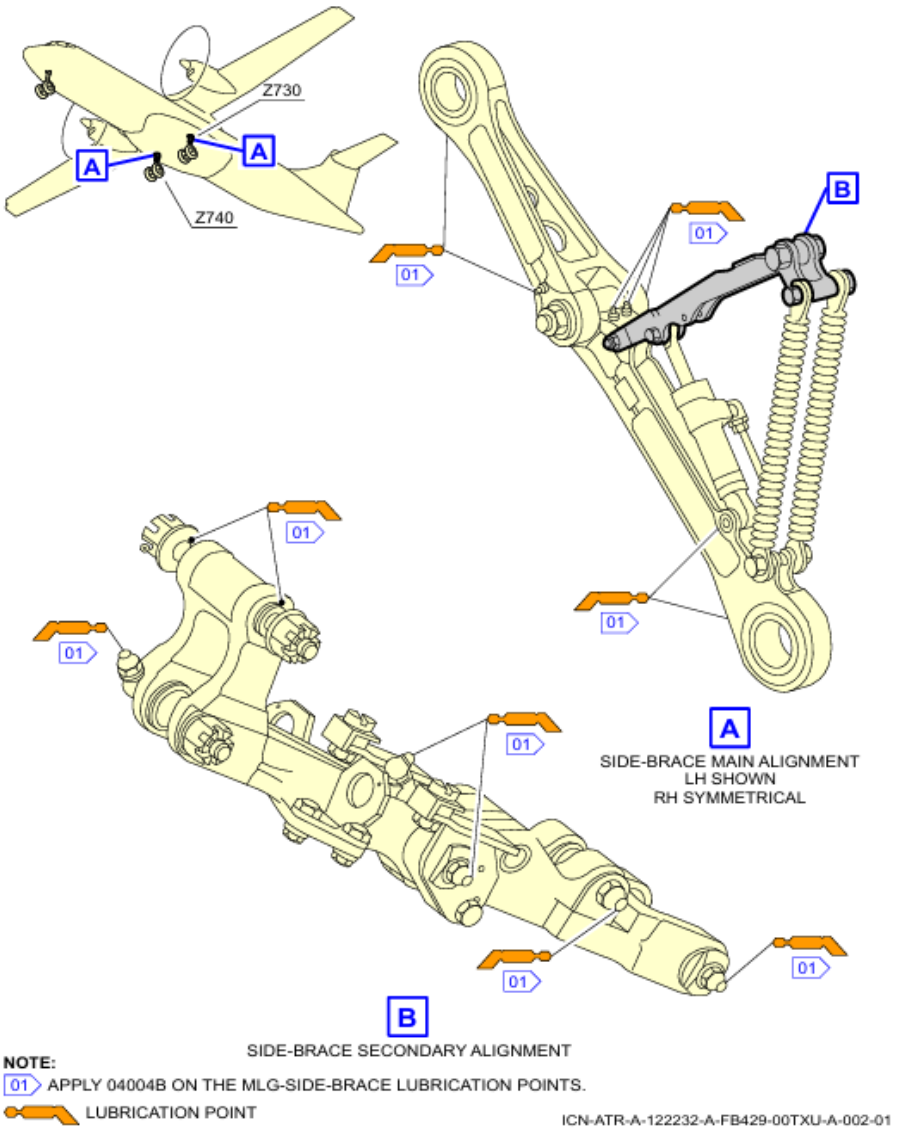
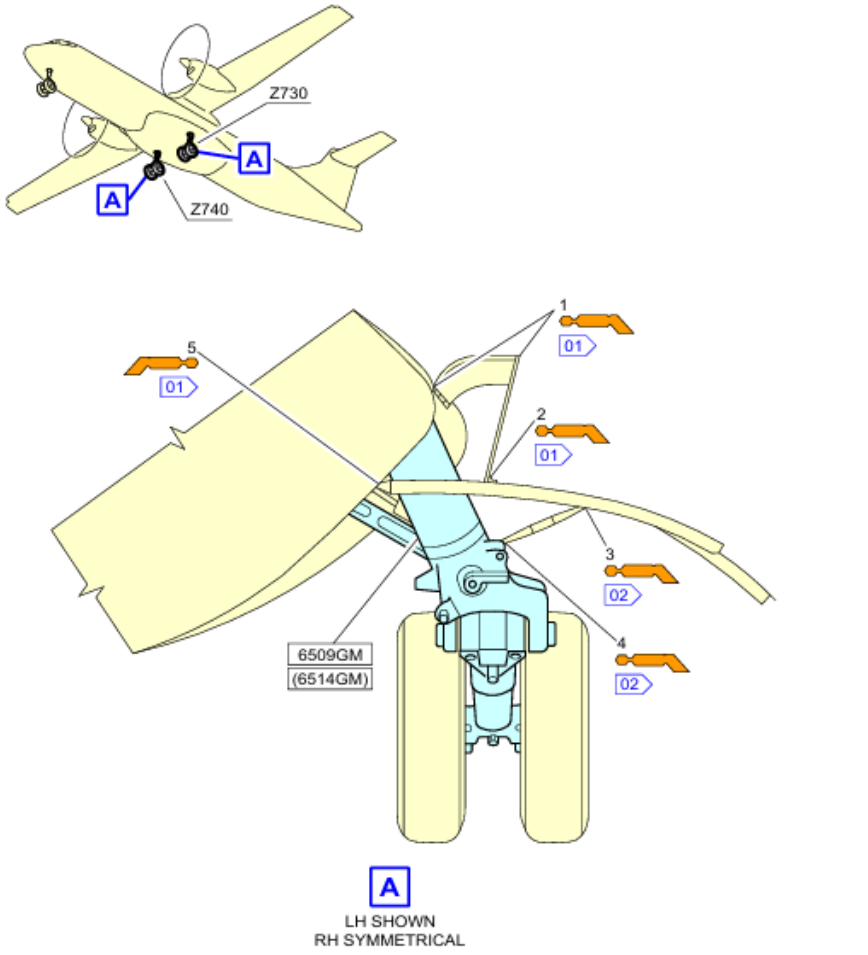


Figure ICN-ATR-A-122232-A-FB429-00TXU-A-002-01 (SHEET 1) - Lubrication of the MLG Side-Brace Points



NOTE:

01 APPLY 04004B MIXED WITH 5% OF 04007A ON THE MLG-DOOR LUBRICATION POINTS.

02 APPLY 04004B ON THE MLG-DOOR LUBRICATION POINTS.

LUBRICATION POINT

ICN-ATR-A-122232-A-FB429-00TXX-A-002-01

Figure ICN-ATR-A-122232-A-FB429-00TXX-A-002-01 (SHEET 1) - Lubrication of the MLG Door Points

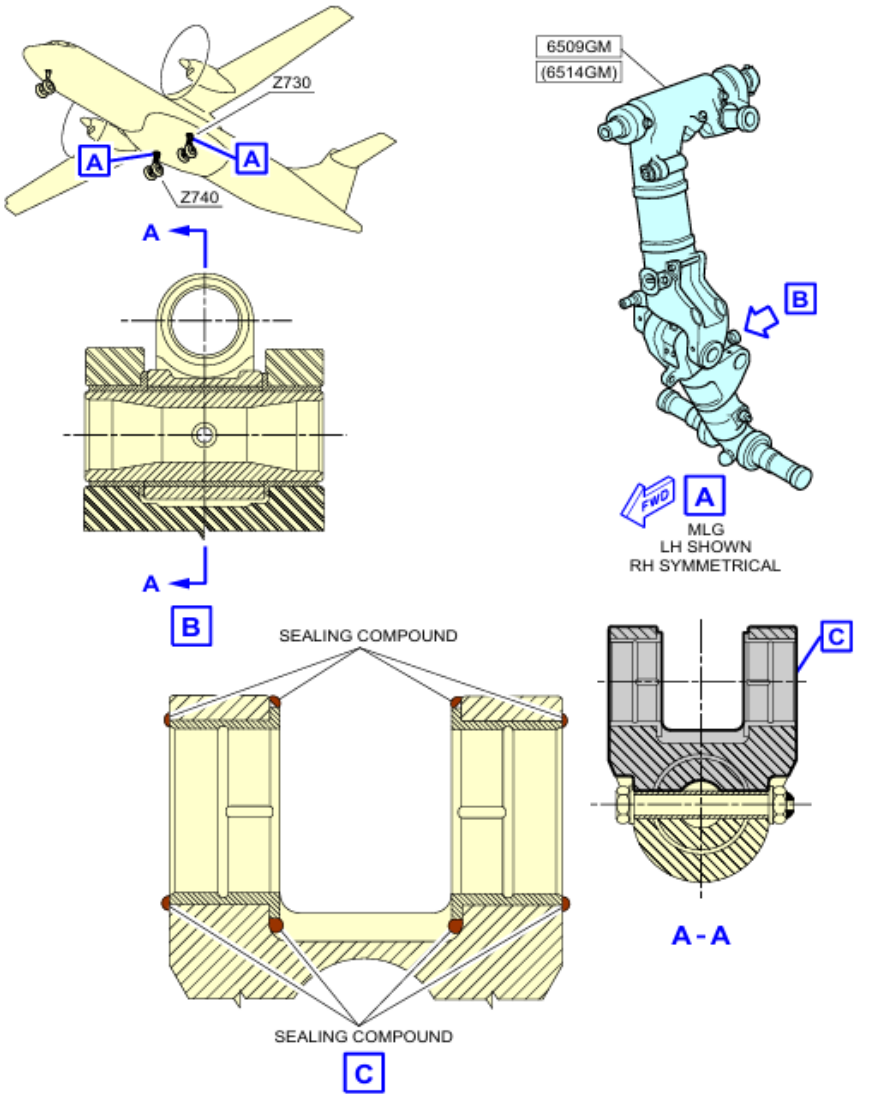
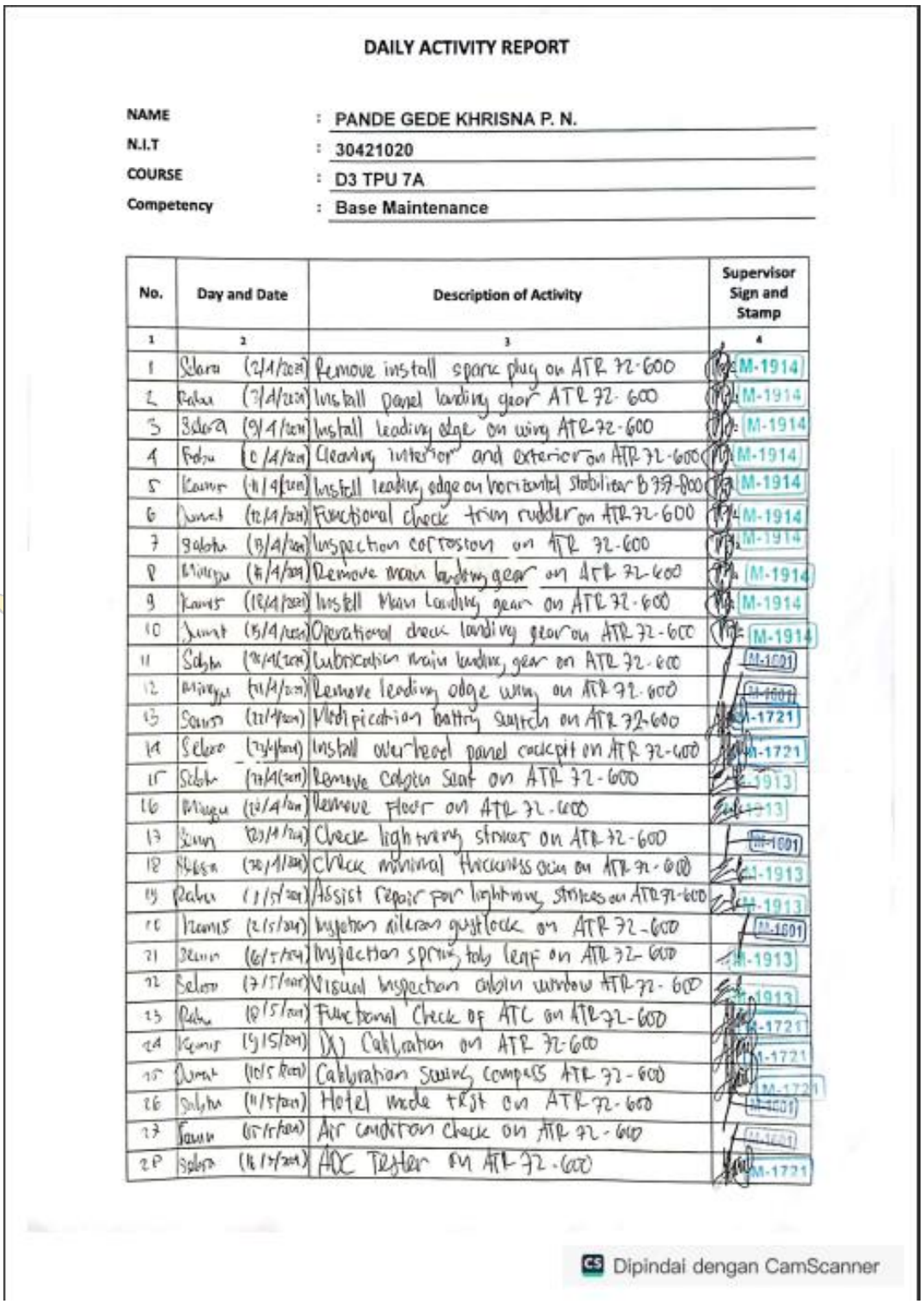


Figure ICN-ATR-A-122232-A-FB429-00TXY-A-002-01 (SHEET 1) - Sealing Compound General-Visual-Inspection for Integrity

Lampiran 6. Daily Activity Report



DAILY ACTIVITY REPORT

NAME : PANDE GEDE KHRISNA P. N.
N.I.T : 30421020
COURSE : D3 TPU 7A
Competency : Base Maintenance

No.	Day and Date	Description of Activity	Supervisor Sign and Stamp
1	2	3	4
1	Selasa (2/4/2024)	Remove install spark plug on ATR 72-600	M-1914
2	Rabu (3/4/2024)	Install panel landing gear ATR 72-600	M-1914
3	Selasa (9/4/2024)	Install leading edge on wing ATR-72-600	M-1914
4	Rabu (10/4/2024)	Cleaning interior and exterior on ATR 72-600	M-1914
5	Kamis (11/4/2024)	Install leading edge on horizontal stabilizer B 737-800	M-1914
6	Jumat (12/4/2024)	Functional check trim rudder on ATR 72-600	M-1914
7	Sabtu (13/4/2024)	Inspection corrosion on ATR 72-600	M-1914
8	Minggu (14/4/2024)	Remove main landing gear on ATR 72-600	M-1914
9	Senin (15/4/2024)	Install Main Landing gear on ATR 72-600	M-1914
10	Jumat (19/4/2024)	Operational check landing gear on ATR 72-600	M-1914
11	Sabtu (20/4/2024)	Lubrication main landing gear on ATR 72-600	M-1601
12	Minggu (21/4/2024)	Remove leading edge wing on ATR 72-600	M-1601
13	Senin (22/4/2024)	Modipication battry switch on ATR 72-600	M-1721
14	Selasa (23/4/2024)	Install overhead panel cockpit on ATR 72-600	M-1721
15	Rabu (24/4/2024)	Remove Cabin Seat on ATR 72-600	M-1913
16	Kamis (25/4/2024)	Remove Floor on ATR 72-600	M-1913
17	Jumat (26/4/2024)	Check lightning strikes on ATR-72-600	M-1601
18	Sabtu (27/4/2024)	Check minimal thickness skin on ATR 72-600	M-1913
19	Minggu (28/4/2024)	Assist repair for lightning strikes on ATR 72-600	M-1913
20	Senin (29/4/2024)	Inspeksi aileron gustlock on ATR 72-600	M-1601
21	Selasa (30/4/2024)	Injection sprue, tab leaf on ATR 72-600	M-1913
22	Rabu (1/5/2024)	Visual inspection cabin window ATR 72-600	M-1913
23	Kamis (2/5/2024)	Functional Check of ATC on ATR 72-600	M-1721
24	Jumat (3/5/2024)	IAJ Calibration on ATR 72-600	M-1721
25	Sabtu (4/5/2024)	Calibration Swing Compass ATR 72-600	M-1721
26	Minggu (5/5/2024)	Hotel mode test on ATR 72-600	M-1601
27	Senin (6/5/2024)	Air conditron check on ATR 72-600	M-1601
28	Selasa (7/5/2024)	ADC Tester on ATR 72-600	M-1721

DAILY ACTIVITY REPORT

NAME : PANDE GEDE KHRISNA P. N.
N.I.T : 30421020
COURSE : D3 TPU 7A
Competency : Base Maintenance

No.	Day and Date	Description of Activity	Supervisor Sign and Stamp
1	2	3	4
29	Rabu (13/5/[illegible])	Major cleaning exterior on ATR 72-600	M-1914
30	Kamis (14/5/[illegible])	Vibration propeller test on ATR 72-600	M-1914
31	Jumat (15/5/[illegible])	Replacement main landing gear brake ATR 72-600	M-1914
32	Sabtu (16/5/[illegible])	Operational test smoke detector on ATR 72-600	M-1914
33	Senin (18/5/[illegible])	Autopilot operational test on ATR 72-600	M-1914
34	Selasa (19/5/[illegible])	Carpet installation on interior ATR 72-600	M-1914
35	Sabtu (1/6/[illegible])	Fuel check on ATR 72-600	M-1914
36	Minggu (2/6/[illegible])	Lubrication and cleaning ATR 72-600	M-1914
37	Jumat (4/6/[illegible])	daily check on ATR 72-600	M-1007
38	Sabtu (5/6/[illegible])	Install exhaust heat exchanger on ATR 72-600	M-1914
39	Rabu (9/6/[illegible])	Install clamp on Air condition System ATR 72-600	M-1001
40	Kamis (20/6/[illegible])	Remove floor for CO3+24 on ATR 72-600	1913
41	Minggu (23/6/[illegible])	Remove lavatory For CO3+24 on ATR 72-600	1913
42	Senin (24/6/[illegible])	Install gasket for visual inspection CO3+24 on ATR 72-600	1721