| Tail Number | SAP Order Number | Work Order Number |
|---|---|---|

## Instructions

1. Each listed inspection and/or maintenance function is to be performed in accordance with the publications listed in the current AW139 Technical Publications Index.
2. This inspection must be performed every 50 hours / 30 days on non-VIP aircraft and every 50 hours on VIP aircraft S/N 31562 & S/N 31851.
3. Each section / item must be initialed or stamped by the mechanic and inspector performing the inspection.
4. All personnel (mechanics, inspectors, shops, etc) who will be signing off any part of the check are required to enter their printed name and company ID with stamp imprint (or certificate number if work is not being performed by repair station) on the last page of this document.
5. Enter all discrepancies found and the corrective action taken on repair station or operator non-routine forms. On this inspection form, write **YES** or **NO** in the box under **Work Required** column for each section / item. If work was required and **YES** was written in the **Work Required** box, also indicate the Non-Routine number that the work was performed under.
6. Enter the Man Hours for each completed line item in the MHRS column.
7. At the completion of each inspection form, a qualified & authorized mechanic shall check the entire form for proper completion and then enter his signature, company ID number (or certificate number if work is not being performed by repair station), date and repair station certificate number (if applicable) in the space provided at the end of the form.

Tail Number _____ SAP Order Number _____ Work Order Number _____

## 1. FUSELAGE (INCL. UPPER DECK) & LANDING GEAR

| ITEM | TASK | MECH | INSP | WORK REQD Yes / No | MHRS |
|---|---|---|---|---|---|
| 1. 01-01 | Brake reservoir: Do a GVI for contents and correct oil level | | | | |
| 2. 01-08 | Wiper arms and wiper blades: Do a GVI for damage and condition | | | | |
| 3. 04-07 | Tail access panels: Do a GVI for condition and security | | | | |
| 4. 05-18<br>06-17 | Fire bottle compartment: Do a GVI for evidence of damage/deterioration of fire bottles, tail rotor drive shaft and antenna. Check engine exhaust external insulation for evidence of degradation | | | | |
| 5. 07-01 | GVI of RF gaskets on baggage compartment door | | | | |
| 6. 25-47 | DI of Rescue Hoist Hook Spring Pin<br>NOTE: Applies to Aircraft with Goodrich Double Hoist Installed<br><br>Double Hoist Installed: YES____ NO_____<br><br>Ref: 39-A-25-94-01-00A-31AB-K | | | | |
| 7. 25-52 | Life Vests (other types): When installing new life vests, be sure to write the date of entry into service on the service record label on the outside, back of the vest. | | | | |
| 8. 25-66 | Portable fire extinguishers: Do a DI of the fire extinguisher pressure gauge to verify the operable range indication, including the gross weight in order to check the correct range value respect the initially installation. In addition, do a DI for physical damage, corrosion, leakage or clogged nozzle.<br><br>Ref. 39-A-26-24-00-00A-31AB-A | | | | |

| Tail Number | SAP Order Number | Work Order Number |
|---|---|---|

## 1. FUSELAGE (INCL. UPPER DECK) & LANDING GEAR

| ITEM | | TASK | MECH | INSP | WORK REQD Yes / No | MHRS |
|---|---|---|---|---|---|---|
| 9. | MTD AW139-11-023 | **S/N 31210 thru S/N 31292**<br>Cockpit portable fire extinguisher- Inspect for following:<br>• Extinguisher is in its designated place<br>• No obstruction to access or visibility<br>• Operating instructions on nameplate legible and facing outward<br>• Safety seal (plastic wire) is not broken or missing<br>• No obvious physical damage, corrosion, leakage, or clogged nozzle<br>• HMIS label is in place<br>• Heft unit to determine fullness (if in doubt, the unit should be weighed and returned to the manufacturer if the gross weight is below1420 grams / 3.1 lbs)<br><br>(Ref: NFPA-10 Inspection and Maintenance Requirements for RT A400, RT A600 and RT A1200 Fire Extinguishers). | | | | |
| 10. | MTD AW139-11-023 | **S/N 31210 thru S/N 31292**<br>Cabin portable fire extinguisher- Inspect for following:<br>• Extinguisher is in its designated place<br>• No obstruction to access or visibility<br>• Operating instructions on nameplate legible and facing outward<br>• Safety seal (plastic wire) is not broken or missing<br>• No obvious physical damage, corrosion, leakage, or clogged nozzle<br>• HMIS label is in place<br>• Heft unit to determine fullness (if in doubt, the unit should be weighed and returned to the manufacturer if the gross weight is below1420 grams / 3.1 lbs)<br>(Ref: NFPA-10 and Maintenance Requirements for RT A400, RT A600 and RT A1200 Fire Extinguishers). | | | | |
| 11. | MTD 2020-005AW139 | EAM – BRAVO (life vest Model P01190): Inspect BRAVO life vests for the date of the next service inspection. The life vest must have more than 30 days till the next service inspection.<br>Note: the inspection tag is located on the inside of R/H side half next to the CO2 cartridge.<br><br>Replace life vest(s) with a serviceable unit if the date of the next inspection is 30 days or less from today.<br>The replacement life vest must have more than 30 days remaining till the next inspection.<br><br>For replacement vests that have never been used before (new from stock), ensure to write the date of entry into service on the service record label on the back of the shoulder strap. | | | | |

Tail Number | SAP Order Number | Work Order Number

## 1. FUSELAGE (INCL. UPPER DECK) & LANDING GEAR

| ITEM | | TASK | MECH | INSP | WORK REQD Yes / No | MHRS |
|---|---|---|---|---|---|---|
| 12. | MTD 2020-005AW139 | EAM – BRAVO (life vest Model P01190): Inspect all life vests for date of manufacture and date or entry into service. The dates label is located on the back of the shoulder strap.<br>Replace any life vest with more than:<br>35 months from date of manufacture<br>Or<br>23 months from entry into service; whichever comes first.<br><br>For replacement vests that have never been used before (new from stock), ensure to write the date of entry into service on the service record label on the back of the shoulder strap | | | | |
| 13. | MTD 2020-005AW139 | SWITLIK (life vest model EV-35): Inspect SWITLIK life vests for the date of the next visual service inspection. The life vest must have more than 30 days till the next service inspection.<br>Note: the inspection tag is located inside the flap on the L /H side half.<br><br>Replace life vest(s) with a serviceable unit if the date of the next inspection is 30 days or less from today.<br>The replacement life vest must have more than 30 days remaining till the next inspection.<br><br>For replacement vests that have never been used before (new from stock), ensure to punch the dates of the upcoming visual inspection and overhaul. | | | | |
| 14. | MTD 2020-005AW139 | SWITLIK (life vest model EV-35): Inspect all life vests for date of manufacture and date or entry into service. The dates label is located inside the flap on the L /H side half.<br><br>Replace any life vest with more than:<br>23 months from date of manufacturer, if no overhaul was performed on life vest<br>Or<br>23 months from last date of overhaul whichever comes first.<br><br>For replacement vests that have never been used before (new from stock), ensure to punch the dates of the upcoming visual inspection and overhaul. | | | | |
| | | **FUSELAGE (INCL. UPPER DECK) & LANDING GEAR COMPLETED** | | | | |

Tail Number | SAP Order Number | Work Order Number

## 2. TAILBOOM & TAIL ROTOR DRIVE

| ITEM | | TASK | MECH | INSP | WORK REQD Yes / No | MHRS |
|---|---|---|---|---|---|---|
| 1. | 03-01 | Tail rotor drive components: Do a GVI for condition, security and damage (tail rotor shafts cowlings opening required). Pay particular attention to Number 2 TRDS in the section adjacent to the area where intakes are installed on leading edge fairing. Includes a GVI of balance patches for condition and security of attachment. Includes a GVI of TR shaft cowling and attachment for damage, corrosion and wear. (tail rotor shafts cowlings opening required). | | | | |
| 2. | 04-01 | Intermediate and tail rotor gearbox: Do a GVI for leaks and correct oil level. If leaks are detected, determine amount of leakage.<br><br>Ref 39-A-65-21-00-00A-364A-A and 39-A-65-22-00-00A-364A-A, including a GVI for general condition and security of attachment. | | | | |
| 3. | 04-02 | Tail rotor servo actuator: Do a GVI for damage, condition, security and leaks. If leaks are detected, determine amount of leakage.<br><br>Ref 39-A-67-32-01-00A-364A-A | | | | |
| 4. | 04-03 | Tail rotor components, blades and rotating controls: Do a GVI for condition, security and damage. Pitch change mechanism and rotor dampers for condition and security. Spider and slider boot for damage and condition. | | | | |
| 5. | 04-04 | Tail rotor pitch change link assembly spherical bearings: Do a GVI and an OC for play. No removal necessary. No quantitative measurement necessary. If unusual play is felt, remove pitch link and perform a DI for condition, damage and play.<br><br>Ref 39-A-64-31-00-00A-31AA-A | | | | |
| 6. | 04-05 | Tailplane attachments: Do a GVI for signs of rubber extrusion and to check tailplane free play | | | | |
| 7. | 04-06 | Tail rotor boot: Do a GVI for damage and condition | | | | |
| 8. | 64-38 | GVI of tail rotor components.<br><br>Ref: 39-A-64-21-00-00A-310A-A | | | | |
| 9. | MI64-01 | Tail Rotor Blade Assembly: General visual inspection for damage.<br><br>Ref. 39-A-64-11-00-00A-310A-A and TMI 139-460 Rev A. steps 1 thru 6.10 (or superseding AMP data module) on all four blades. | | | | |
| 10. | Tail camera lens | Clean as required. | | | | |

Tail Number | SAP Order Number | Work Order Number

| 2. TAILBOOM & TAIL ROTOR DRIVE | | | | | |
|---|---|---|---|---|---|
| ITEM | TASK | MECH | INSP | WORK REQD Yes / No | MHRS |
| TAILBOOM & TAIL ROTOR DRIVE COMPLETED | | | | | |

Tail Number | SAP Order Number | Work Order Number

## 3. MAIN ROTOR & GEARBOX

| ITEM | TASK | MECH | INSP | WORK REQD Yes / No | MHRS |
|---|---|---|---|---|---|
| 1. 05-01 06-01 | Main rotor components, blades and rotating controls: Do a GVI for condition, security, damage, separation or loss of elastomeric bearing elements, blowing and/or rubber extruding and presence of grease. Check flap restrainers and droop stop plate for condition and for presence of grease. Check damper fluid level | | | | |
| 2. 05-02 06-02 | Main rotor pitch change link assembly spherical bearings: Do a GVI and an OC for play. No removal necessary. No quantitative measurement necessary. If unusual play is felt, remove pitch link and perform a DI for condition, damage and play.<br><br>Ref 39-A-62-31-00-00A-31AB-A. | | | | |
| 3. 05-03 06-03 | Main rotor dampers: Do a GVI for leaks. If leaks are detected, determine amount of leakage.<br><br>Ref 39-A-62-22-00-00A-364A-A | | | | |
| 4. 05-04 06-04 | Main rotor damper spherical bearings: Do a GVI and an OC for play. No removal necessary. No quantitative measurement necessary. If unusual play is felt, perform a DI for condition, damage and play.<br><br>Ref 39-A-62-22-00-00A-31AA-A | | | | |
| 5. 05-05 06-05 | Swashplate boot and main rotor controls boot: Do a GVI for condition and damage | | | | |
| 6. 05-06 06-06 | Rotating controls installation - Rotating scissors assemblies:<br>Do a GVI (pay particular attention to the spherical bearings staking condition) and an OC for play of lower half scissors spherical bearings. No removal necessary. No quantitative measurement necessary. If unusual play is felt, perform a DI for condition, damage and play.<br><br>Ref 39-A-62-31-02-00A-31AA-B or 39-C-62-31-02-00A-31AA-B, as applicable. | | | | |
| 7. 05-07 06-07 | Main rotor sliding ring outer surface and DU washers: Do a GVI for condition and damage | | | | |
| 8. 05-08 06-08 | Main rotor servo actuators: Do a GVI for condition, security, damage and leaks. If leaks are detected, determine amount of leakage.<br><br>Ref 39-A-67-31-00-00A-364A-A | | | | |
| 9. 05-09 06-09 | Main gearbox: Do a GVI for condition, damage, leaks, correct oil level and security of installation. Cooling system for condition and leaks | | | | |

Tail Number | SAP Order Number | Work Order Number

## 3. MAIN ROTOR & GEARBOX

| ITEM | | TASK | MECH | INSP | WORK REQD Yes / No | MHRS |
|---|---|---|---|---|---|---|
| 10. | 05-10<br>06-10 | Gimbal and driveshaft installation: Do a GVI for condition, security and leaks. Pay particular attention to signs of rubber extrusion and to the total surface of the input shaft. If leaks are detected, determine the amount of leakage.<br><br>Ref 39-A-63-20-00-00A-364A-A | | | | |
| 11. | 05-11 | Upper deck: Do a GVI for signs of leakage / transudation, fixing / condition of cables and bleed air pipes. Includes check of removable fittings, hydraulic pumps, PCMs (check also for correct fluid level), tail rotor SOV | | | | |
| 12. | 05-12<br>06-11 | Environmental control system upper deck components: Do a GVI for condition, cleanliness and damage. Check compressor pack carter for condition and damage. | | | | |
| 13. | 62-48 | Main rotor tension link: Do a DI for presence of cracks at the droop stop support.<br><br>Ref. 39-A-62-22-00-00A-31AK-A | | | | |
| 14. | 63-35 | Rotor brake cover and attachment brackets: Do a GVI for condition and integrity of attachments.<br><br>Ref. 39-A-63-50-00-00A-310A-A. | | | | |
| 15. | MI62-01 | Main rotor blade assembly: General visual inspection for damage.<br><br>Ref 39-A-62-11-00-00A-310A-A | | | | |
| 16. | MI62-02<br>MI62-03 | Main Rotor Elastomeric Bearing (P/N 3G6220V00153 and 3G6220V00154): Detailed inspection for cracks in the elastomer.<br><br>Ref 39-A-62-22-00-00A-31AC-A | | | | |
| | **MAIN ROTOR & GEARBOX COMPLETED** | | | | | |

Tail Number _____ SAP Order Number _____ Work Order Number _____

## 4. ENGINE & POWERPLANT

| ITEM | | TASK | MECH | INSP | WORK REQD Yes / No | MHRS |
|---|---|---|---|---|---|---|
| 1. | 05-13<br>06-12 | Engine bays: Do a GVI for condition, damage, fuel and/or oil leaks, security of engine installation and fire line harness. Seals and firewalls for cracks. Drain holes for obstruction | | | | |
| 2. | 05-14<br>06-13 | Engine exhaust ducts, aft / external section: Do a GVI of inner surface for condition and damage | | | | |
| 3. | 05-15<br>06-14 | Engine bleed air ducts: Do a GVI for security of duct connections and integrity of the thermal insulation. Combined check of engine bay ducts and inter-engine bay duct. Engine cowlings opening necessary | | | | |
| 4. | 05-16<br>06-15 | Starter generator inlet / outlet ducts: Do a GVI for damage, condition, cleanliness and correct position | | | | |
| 5. | 05-17<br>06-16 | Starter generator QAD adapter and Q/R clamp: Do a GVI for damage, condition and cleanliness | | | | |
| 6. | CM71-03 | **ALL AW139 FITTED WITH INLET BARRIER FILTER PER STC SR02772CH**<br><br>Engine Power Available Trend Monitoring (4-Display Helicopter Only): Record the power assurance check trend for both current installed engines.<br><br>1. Transpose OAT, Rotor RPM, Torque, Pressure Altitude and Engine #1 / #2 NG and ITT from latest flight log to the chart.<br><br>Referencing RFM page S5-23 Rev. 0 for 100% NR (attachment 1 of this form) or RFM Page S12-K7 Rev. 0 for 102% NR (attachment 2 of this form), insert the calculated maximum allowable ITT and NG.<br><br>NOTE 1: If the maximum allowable ITT or NG is exceeded, the cause should be determined as soon as practical.<br>NOTE 2: Details have been transposed from the most current Helicopter Log page as noted in the table above.<br>NOTE 3: If an engine has been replaced since the last flight, ensure a fresh power check is performed to obtain data reflecting the current installed engines.<br>Applicable: ____ Not applicable: ____ | | | | |

| Parameter | | Power Check | |
|---|---|---|---|
| OAT | | Engine #1 | Engine #2 |
| NR | | | |
| Torque | | | |
| Altitude | | | |
| NG | | | |
| ITT | | | |
| Log Page | No.: | Date: | |

| | | | | |
|---|---|---|---|---|
| **ENGINE & POWERPLANT COMPLETED** | | | | |

Tail Number | SAP Order Number | Work Order Number

## 5. AVIONICS & ELECTRICAL

| ITEM | TASK | MECH | INSP | WORK REQD Yes / No | MHRS |
|---|---|---|---|---|---|
| 1. 01-06 | Nose compartment components: Do a GVI for condition, security and damage. Includes drainage of pitot-static lines and a VC of external power receptacle for condition and arcing | | | | |
| 2. 01-07 | RF gaskets on nose compartment door: Do a GVI for damage and condition | | | | |
| 3. 02-01 | RF gaskets on baggage compartment door: Do a GVI for damage and condition | | | | |
| 4. PSEAW139/2013/21847/85123 | Tail rotor blades – conductivity test: Perform Tail Rotor blade continuity checks.<br><br>Ref. 39-A-64-11-01-00A-365A-A. | | | | |
| **AVIONICS & ELECTRICAL COMPLETED** | | | | | |

| Tail Number | SAP Order Number | Work Order Number |
|---|---|---|
| | | |

## 6. DCU DOWNLOAD

| ITEM | TASK | | MECH | INSP | Work Reqd Yes / No |
|---|---|---|---|---|---|
| 1. PT6C-67C AWL 4.A.(5) | DCU data extraction<br><br>Connect computer with P&WC ground based software ref PT6C-67C MM 77-40-01. Record LCF parameters in the table to the right.<br><br>NOTE: MM 77-40-01 para. 6. B. (3) refers to MM 73-20-10 as a preferred / alternative method of accessing DCU data. | PARAMETERS | DCU ENGINE 1 | DCU ENGINE 2 | |
| | | ENGINE S/N | | | |
| | | COMP CYC COARSE | | | |
| | | CT CYC COARSE | | | |
| | | PT CYC COARSE | | | |
| | | CTBLCRPSUM | | | |
| | | PTBLCRPSUM | | | |
| | | ENG_RUN _COARSE | | | |
| | | | | | |
| DCU DOWNLOAD COMPLETED | | | | | |

Tail Number _____ SAP Order Number _____ Work Order Number _____

**7. MEL DEFERRED ITEMS**

**List all items currently deferred for repair per MEL.**
**Inspect all MEL'd items not repaired or removed.**

| MMEL NUMBER | MMEL DESCRIPTION | LEAD MECH | INSP | Work Required YES / NO |
|---|---|---|---|---|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| INSPECTION OF MEL DEFERRED ITEMS COMPLETED | | | | |

**6. WORK COMPLETION**

| TASK | MECH | INSP | WORK REQD Yes / No |
|---|---|---|---|
| Complete final walkaround on aircraft to ensure all panels have been reinstalled. | | | |
| Verify completion of all associated Routine / Non-Routine Work Orders. | | | |
| Record the total man-hours for all checklist items:_____ | | | |

| **Tail Number** | **SAP Order Number** | **Work Order Number** |
|---|---|---|

I certify that the 50 Hour Check has been performed on aircraft:

(tail number) _____, aircraft total time _____, in accordance with the Mukamalah Aviation Company Leonardo AW139 Aircraft Inspection Program Revision ___ and Operator Maintenance Manual Revision ___ and the aircraft has been determined to be in airworthy condition with respect to the work performed.

| Date | Mechanic's Signature | Company ID Number or Cert. Number | Repair Station Cert. No. (if applicable) |
|---|---|---|---|

Power Assurance Check at 100% NR

**POWER ASSURANCE CHECK in HOVER FLIGHT (NR=100%)**
**EAPS INSTALLED**

EAPS ON
HEATER/COND OFF
GENERATOR LOAD TO MINIMUM (BELOW 17%)
SET NR to 100%
TEST ENGINE MODE SWITCH: FLIGHT
OTHER ENGINE MODE SWITCH: IDLE
INCREASE COLLECTIVE UNTIL LIGHT ON WHEELS OR HOVERING AT 5 FEET, NOSE ON WIND. DO NOT EXCEED 775°C ITT OR 102.4% NG OR 105% TQ
STABILIZE POWER 1 MINUTE, THEN RECORD OAT, PRESSURE ALTITUDE, ENGINE TORQUE, ITT AND NG
ENTER CHART AT INDICATED TQ, MOVE DOWN TO INTERSECT PRESSURE ALTITUDE, PROCEED TO THE RIGHT TO INTERSECT OAT,
THEN MOVE UP TO READ VALUES FOR MAXIMUM ALLOWABLE ITT AND NG
IF INDICATED ITT OR NG EXCEEDS MAXIMUM ALLOWABLE, REPEAT CHECK
REPEAT CHECK USING OTHER ENGINE
IF EITHER ENGINE EXCEEDS ALLOWABLE ITT OR NG, PUBLISHED PERFORMANCE MAY NOT BE ACHIEVABLE. REFER TO EMM

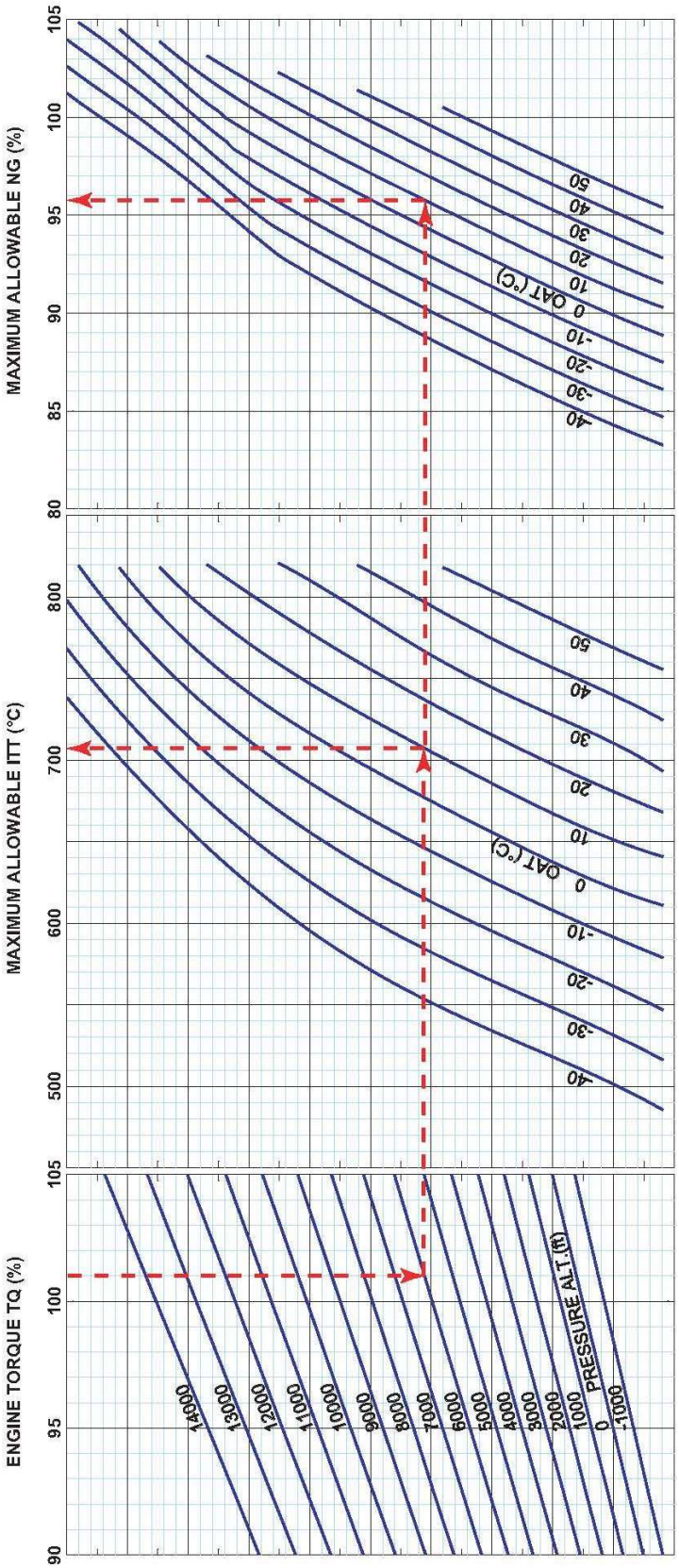


Figure 4-1 PWC PT&C-67C Hover Power Chart EAPS ON

Power Assurance Check at 102% NR

**POWER ASSURANCE CHECK in HOVER FLIGHT (NR=102%)**

HEATER/COND OFF
GENERATOR LOAD TO MINIMUM (BELOW 17%)
SET NR to 102%
TEST ENGINE MODE SWITCH: FLIGHT
OTHER ENGINE MODE SWITCH: IDLE
INCREASE COLLECTIVE UNTIL LIGHT ON WHEELS OR HOVERING AT 5 FEET, NOSE ON WIND. DO NOT EXCEED 775°C ITT OR 102.4% NG OR 105% TQ
STABILIZE POWER 1 MINUTE, THEN RECORD OAT, PRESSURE ALTITUDE, ENGINE TORQUE, ITT AND NG
ENTER CHART AT INDICATED TQ, MOVE DOWN TO INTERSECT PRESSURE ALTITUDE, PROCEED TO THE RIGHT TO INTERSECT OAT,
THEN MOVE UP TO READ VALUES FOR MAXIMUM ALLOWABLE ITT AND NG
IF INDICATED ITT OR NG EXCEEDS MAXIMUM ALLOWABLE, REPEAT CHECK
REPEAT CHECK USING OTHER ENGINE
IF EITHER ENGINE EXCEEDS ALLOWABLE ITT OR NG, PUBLISHED PERFORMANCE MAY NOT BE ACHIEVABLE. REFER TO EMM

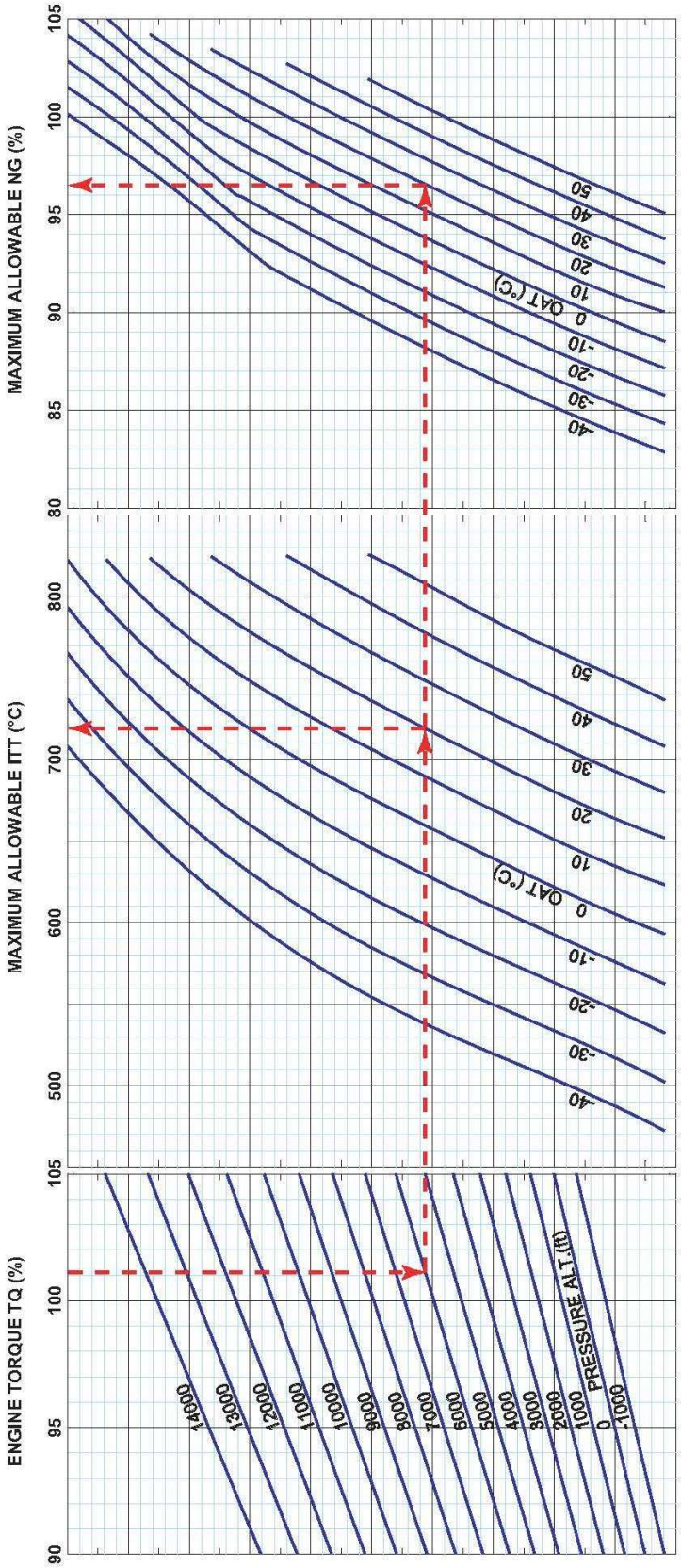


**Figure 4K-2 Power Assurance Check**