

Czech Jet, Inc.
L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

RECORDS INSPECTION

INSPECTORS NAME:

DATE:

PREVIOUS OWNER:

AIRFRAME

Import Country
N Number
Manufacture Year
Manufacture Ser #
Airframe Time
Airframe Cycles

WEIGHT & BALANCE

Empty Weight:

CG:

ENGINE

Overhaul / Manufacture date
Overhaul Location
Ser #
Time
Cycles / date

FIRE BOTTLE CARTRIDGE DATE

SAPHIR-V

Overhaul / Manufacture date
Ser #
Time
Cycles / date

A/C Turbo

Overhaul / Manufacture date
Ser #
Time
Cycles / date

PRE-Walk-around conditions

Last Flight
Flight last 6 months
N2 Pressure
Main Hyd pressure
Aux Hyd Pressure

Czech Jet, Inc.
L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

PARACHUTES / EGRESS (dates)

FRONT

REAR

MAIN

Manufacture
Repack

DROGUE

Manufacture
Repack

CARTRAGES

Canopy
Drogue
Harness
Catapult
Rocket

BRAKES time

LANDING GEAR time

FUEL BLADDERS time / date

ORIGINAL LOG BOOKS

DAMAGE HISTORY

COMMENTS:

Czech Jet, Inc.
L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

PHYSICAL INSPECTION

- Panels removed
- Flaps down
- Gear doors down
- RAT down
- Fluid leaks
- Overall paint
- Overall view for damage / corrosion
- Door interior conditions

Exterior walkaround

- Radome & screws
- O2 and Nitrogen Gauges / valves
- Ice probe / cover
- Nose compartment
 - Battery / vent
 - O2 bottles
 - N bottles
 - Bulkhead connectors
 - Ballast
 - Electrical equipment
 - Ground switches

- Nose gear
 - Bearings
 - door
 - Tire
 - Shimmy damper
 - Pivot Alignment
 - Seal Rotation
 - End Stops
 - Strut & inflation
 - Tire inflation

- Boarding step condition
- Canopy condition
 - Windscreen
 - Front
 - Rear
 - Center wind screen
 - IFR Curtains
 - Latches
 - Locks
 - Drains

- Canopy seal condition
- 3x36 inverter / compartment condition
- Radio altimeter / compartment
- Fuselage / wing interface
 - Fairing
 - Bladder anchors

Czech Jet, Inc.

L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

Pressurization Valve

Speed brakes

Actuators

Fairing

RAT turbine

Free

Condition

Fire Bottle Pressure

Fire Bottle Pyro

Wheel compartment

LEFT

RIGHT

Fuel bladder anchors

Fuel Tank Interconnects

Doors

Plumbing

Bearings

Tires

Brakes

Links / struts

Tire inflation

Attach bolts / pins

Corrosion

GEAR RETRACT

Wing

LEFT

RIGHT

Leading edge

Trailing edge corrosion

Pitot tube

Attach bolt pinned

Landing Light lens cover

Navigation lens

Tank filler

Tank capacity

Aileron

Rigging

Tracking

Alignment

Flaps

Rigging

Tracking

Alignment

Tail bolts

Hydraulic reservoir

External Power Connector

External Hydraulic Connectors

Engine compartment

Cleanliness

Czech Jet, Inc.

L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

- Condition
- Engine fluid levels
- Saphir compartment
 - Cleanliness
 - Condition
 - Saphir fluid levels
 - Shaft end play
 - Tail pipe

- Recorder compartment
- Elevator
 - Vortex generators
 - Static discharge wicks
 - Rigging
 - Tracking
 - Alignment
- Tail Pipe
 - Fluids
 - Roundness
 - Damage / cracks
 - Vent tubes
 - Screws
 - Turbine blades
- Tail bolts
- Tail weights
- Wings (same as above)
- Wheel well (same as above)
- Accumulators
- 110V inverters
- Engine intakes
 - Exterior
 - Interior ramp
 - erosion
- Engine compressor inspection
 - Blade damage
 - Cleanliness
- Fuel filler
- Turtledeck fairing
- Avionics compartment
 - Cleanliness
 - Control rigging
 - Reservoir compartment

- Tail
 - Fairing
 - Rudder
 - Tall
 - Short

L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

Bolts/pins
Cap erosion

Avionics bay
A/C turbo visual condition
Cleanliness

FRONT COCKPIT

Interior condition
Paint / labels / markings
Condition
Type
ENGLISH

INSTRUMENT PANEL

Glare Shield
Side panels

CAMERA AREA

Airspeed
Altimeter
Radio altimeter
DG
HIS
VOR
Engine 3 gauge
Clock
G meter
Vertical Velocity
Gear handle
COMPASS (wind screen)

LEFT DESK

Lower Side covers
Top covers / canopy / electrical box condition
Pressure gauges
Engine / saphir switches
Intercom
Pitot selectors
Heat switches
Throttle
Mic switch
Speed brake switch
Camera cables/swivels
O2 selectors
G Suit Selector/valves
Fuel shut off selector
Park/Emer Brake lever
3x36 inverter

L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

RIGHT DESK

- Lower Side covers
- Top covers / canopy / electrical box condition
- Electrical panel
 - Standard configuration
 - Special alterations
- Canopy seal actuator
- Radio panel
- Canopy Egress handle
- A/C and lighting panel
- IFF panel
- Emergency selector handles
- gauges
- Compass correction panel
- Aux switch panel
- Fuse panel

CENTER DESK and STICK

- Armament and flare switches
- Trim meter/ lights
- Brake pressure gauges
- Coolie tower
- Brake handle
- Rudder movement
 - Visual for cables, etc.

REAR COCKPIT

- Interior condition
- Paint / labels / markings
 - Condition
 - Type
- ENGLISH

INSTRUMENT PANEL (rear)

- Airspeed
- Altimeter
- Radio altimeter
- DG
- HIS
- VOR
- Engine 3 gauge

- Clock
- G meter
- Vertical Velocity
- Gear handle

LEFT DESK (rear)

- Lower Side covers
- Top covers / canopy / electrical box condition
- Pressure gauges

Czech Jet, Inc.

L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

Engine / saphir switches
Intercom
 Throttle
 Mic switch
 Speed brake switch
O2 selectors
G Suit selectors/valves
Fuel shut off selector

RIGHT DESK (rear)

Lower Side covers
Top covers / canopy / electrical box condition
Electrical panel
 Standard configuration
 Special alterations
MAIN POWER SHUTOFF
Radio panel
A/C and lighting panel
Emergency selector handles
gauges
DG Error panel

CENTER DESK and STICK (rear)

Four Failure switches
Two pitot / static valves
Trim meter/ lights
Brake pressure gauges
Coolie tower
Brake handle
Rudder movement
 Visual for cables, etc.

SEAT / EGRESS

FRONT

REAR

HOT SEATS
Safety Pins (9)
Pyros
 Canopy
 Drogue
 Harness
 Catapult
 Rocket
Canopy piston tapes
Chute Date
Drogue Date
Emergency kit date
Emergency Pack lanyard

L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

Chute Timers
Chute Lanyard
O2 pack
Leg harness / clips
Seat harness
Parachute harness
Interface block
Pitot connection
Height adjust tubes (condition)
Weight adjust mechanism
Electrical seat adjustment

ELECTRICAL / SYSTEM TEST

Power On
Nav lights
 Left
 Right
 Tail
 Landing Gear
Landing / Taxi Lights
Instrument lights
 Red / White
 Front / Rear
 Compass Light
Map Lights front / rear
Avionics
Crash Regime lights front / rear
3x36 inverters (lights / gauges)
110V inverters
Radio Altimeter
Gyro
 DG
 HIS
Engine Master
 Boost pump
Air Conditioning
 Slider valves
 Bypass
 Shower
 Heat
Canopy seals

HYDRALICS SYSTEM TEST

(Aircraft on jacks to cycle gear)
External hydraulic connected
System Level
System pressure
Emergency pressure
Brake pressure

L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

Cycle Normal

Flaps

Speed brakes

Gear

Cycle emergency

Flaps

Speed brakes

RAM turbine

Gear

Czech Jet, Inc.
L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

ENGINE RUN – PROTOCOL TESTING

REAR COCKPIT SECURED

"NETWORK" SWITCH	ON
COCKPIT INDICATOR CIRCUIT BREAKER	ON
LANDING GEAR	NEUTRAL
EGT SWITCH	FRONT COCKPIT

FRONT COCKPIT

CHECK CIRCUIT BREAKERS	
CHECK BATTERY VOLTAGE	24 V MIN.
GPU VOLTAGE	24 - 29V
CHECK INDICATOR LIGHTS ANNUNCIATOR PANEL	
CHECK FIRE WARNING	
CHECK ENGINE VIBRATION METER	75-100 MM/SEC
WHEN 115 V INVERTER ON.....PUSH MV-300 CHECK BUTTON	
CHECK FUEL GAGE	
CHECK ENGINE INSTRUMENTS READ	"0"
FIRE COCK	OPEN
"ENGINE STOP" SWITCH OFF AND COVERED	
"EMERGENCY FUEL" SWITCH OFF AND COVERED"	
"COLD TURNING" - "FALSE STARTING" SWITCH IN STARTING POSITION AND	COVERED.
DE ICING SWITCH	OFF
"AIR CONDITIONING-PRESSURING".....REAR EXTREME POSITION SWITCH OFF	
LANDING GEAR C. B. - REDUCE HYD PRESS TO	"0"
CHECK THROTTLE OPERATION	

ENGINE STARTING:

BATTERY	ON
FUEL PUMP	ON
115V INVERTER	ON
RTL	ON
TANKS	ON
AIR CONDITIONER OFF	LIT
HYDRAULIC SYSTEM FAIL	LIT
DONT START	NOT LIT

Czech Jet, Inc.
L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

DEICING ON	NOT LIT
150 KG FUEL	NOT LIT
SET TEMP CONTROL	
THROTTLE POSITION	STOP
PRESS TURBINE STARTER (SAPPHIRE-5)	102 SEC.
ACTUATE SECOND METER ON CLOCK	
TURBINE STARTER.....23-24	
SECS.....	LIT
IF NO START..USE STOP TURB SWITCH	31 SEC.
THROTTLE FROM STOP TO STOP DOG "LOW THROTTLE"	AFTER 3-6 SECS.
CONFIRM OIL PRESSURE	
CONFIRM ENGINE ROTATION "TACHOMETER"	8 SECS.
20% MIN ROTATION	15 SECS.
TEMP MAX	550
RPM KEEPS INCREASING	
ENGINE OFF IF NO IGNITION	25 SECS.
"TURBINE STARTER" TURNS OFF AND LIGHT GOES OUT	41.5 TO 44.5%
CUT OFF ENGINE IF NOT 41.5%	45 SECS.
IF AFTER 45 SECS RPM DID NOT REACH 41.5%	SAPPHIRE GOES TO IDLE
STOP ENGINE IF NOT AT LOW THROTTLE	50 SECS.
LOW THROTTLE	54.5 - 57.5%
OIL PRESSURE	2 - 4.5
TPT	MAX 600
GENERATOR	ON
HYDRAULIC PRESSURE	150
CHECK PUMP OUT PUT	
LANDING GEAR CIRCUIT BREAKER	ON
HYDRAULIC PRESS BRAKES	33 +/-3
EMERGENCY PRESS BRAKES	32 +8/-3
GENERATOR	27 - 29 V
"TANKS" WARNING LIGHT	OFF
HYDRAULIC TANK (RESERVOIR)	1.2 + 1.1
REAR COCKPIT:	
LANDING GEAR LEVER	NEUTRAL
OXYGEN VALVE	OPEN
SUIT VENTILATION VALVE	CLOSE
NETWORK SWITCH	ON

Czech Jet, Inc.
L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

ENGINE RUNUP AND SYSTEMS CHECK

USE STARTING CHECK LIST TO START ENGINE

- (1) SAPPHIRE START NORMAL _____
- (2) ENGINE START NORMAL _____
- (3) MAXIMUM TPT DURING START WAS _____ C _____
- (4) ENGINE IDLE - REMAIN AT IDLE FOR 1 MINUTE WARMUP.
 - (a) RPM 54.5-57.5% _____
 - (b) OIL PRESSURE 2-4.4 kg/cm2 _____
 - (c) TPT (MAX 600) ACTUAL _____ C _____
 - (d) HYDRAULIC PRESSURE 150 +1/-15 kg/cm2 _____
 - (e) EMERGENCY HYDRAULIC PRESSURE EQUAL TO HYDRAULIC PRESSURE IN MAIN SYSTEM. IF NOT, MOVE EMERGENCY LEVER FROM MAIN POSITION TO EMERGENCY POSITION UNTIL PRESSURE EQUALIZES. _____
 - (f) BRAKE PRESSURE NORMAL 33 +3/-3 kg/cm2 _____
 - (g) BRAKE PRESSURE EMERGENCY 32 +8/-3 kg/cm2 _____
- CAUTION:**
DO NOT PRESS BRAKE LEVER IF THERE IS NO PRESSURE IN THE SYSTEM AS DAMAGE TO THE BRAKE SYSTEM MAY RESULT.
- (h) GENERATOR VOLTAGE 27-29 _____
- (i) AMMETER SHOWS CHARGE _____
- (j) SET PARKING BRAKE-CHECK BRAKE PRESSURE _____
- (k) CLOSE CANOPY AND LOCK. "CANOPY" UNLOCKED" LIGHT WILL GO OFF _____
- (l) MOVE (AIR CONDITION-PRESSURIZE) LEVER _____ FORWARD TO STOP DOG. "AIRCONDITION OFF" LIGHT WILL GO OUT
- (m) CHECK PRESSURIZATION BY REDUCTION IN COCKPIT NOISE LEVEL AND PRESSURIZATION WILL READ 0.021-0.041 kg/cm2 _____
- (n) CHECK FLIGHT CONTROLS FOR FREEDOM OF MOVEMENT AND FULL TRAVEL _____
- (o) SET ELEVATOR TRIM. NOTE TRIM INDICATOR FOLLOWS TRIM SETTING _____

Czech Jet, Inc.
L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

5. CHECK OPERATION OF AIR BYPASS VALVE (STAGE III)
 ADVANCE THROTTLE SLOWLY AND MONITOR RPM.
 RPM NEEDLE OF n1 SHALL JUMP TO AN INCREASE
 OF 3-4% WHEN n1 IS IN THE RANGE OF 74-77%
 AS THE AIR BYPASS VALVE CLOSES. _____

6. ADVANCE THROTTLE TO 85% AND WARM UP FOR 1 MIN
 MINIMUM:
 - (A) CHECK FLAP SYSTEM:
 - EXTEND TO TAKE OFF POSITION _____
 - EXTEND TO LANDING OSITION _____
 - RETRACT TO TAKE OFF POSITION _____
 - RETRACT TO UP POSITION _____
 - INDICATOR LIGHTS OPERATIONAL _____

 - TIME OF EXTENSION AND RETRACTION
 - FLIGHT - TAKEOFF 2-4 SEC. _____
 - TAKEOFF - LANDING 2-3 SEC. _____
 - FLIGHT - LANDING 4-7 SEC. _____

 - HYDRAULIC PRESSURE DURING FLAP OPERATION
 SHALL NOT DROP UNDER 70 kg/cm2 _____

 - (B) DIVE BRAKE OPERATIONAL CHECK
 - EXTENSION - NORMAL _____
 - RETRACTION - NORMAL _____

 - HYDRAULIC PRESSURE DROP SHOULD NOT BE
 UNDER 60 kg/cm2 _____

 - TIME OF DIVE BRAKE RETRACTION
 1/5 - 2.5 SEC. _____
 - INDICATOR LIGHT OPERATIONAL _____

7. CHECK ENGINE OIL TEMPERATURE - 5 DEG.C.MIN.
 IF NOT, INCREASE THE THROTTLE TO n1 RPM 93%
 AND CONTINUED WARM UP UNTIL 5 DEG.C IS
 ATTAINED _____

8. ADVANCE THROTTLE TO 103.2%
 TPT MAX 625 DEG. C. _____
 ENGINE VIBRATION METER 40 mm/sec _____

 CHECK FUEL PUMP OPERATION. TURN BOOST
 PUMP OFF. NOTE "DONT START" LIGHT
 COMES ON AND ENGINE PARAMETERS REMAIN
 THE SAME. TURN FUEL BOOST PUMP ON _____

9. FULL POWER CHECK
 ADVANCE THROTTLE TO FORWARD STOP
 n1 = 106.8 +/-1% _____

 ENGINE VIBRATION METER 40 mm/sec _____
 NOTE FUEL PRESSURE AS THIS READING WILL
 BE USED FOR THE ACCELERATION CHECK _____

Czech Jet, Inc.

L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

10. REDUCE THROTTLE SLOWLY AND CHECK THAT AIR BYPASS VALVE (STAGE III) OPENS AT 89 - 86% _____
- THE RPM NEEDLE WILL JUMP TO A LOWER VALUE 1 - 2 % AS THE VALVE OPENS
- REDUCE THE THROTTLE FURTHER AND NOTE THE RPM OF nI JUMP LOWER AT 77 - 74% INDICATING THE AIR BYPASS VALVE OF STAGE V HAS OPENED _____
11. ENGINE ACCELERATION CHECK
NOTE THE FUEL PRESSURE AFTER 30 SEC AT IDLE. _____
- ADVANCE THE THROTTLE SMOOTHLY FROM IDLE TO FULL THROTTLE WITHIN 1 - 2 SEC. NOTE THE TIME THAT THE FUEL PRESSURE EQUALS THE VALUE NOTED DURING THE PRIOR FULL POWER CHECK. THIS SHOULD BE WITHIN 9 - 12 SEC. _____
- AFTER 15 SEC AT FULL THROTTLE NOTE THE TIME AND SMOOTHLY REDUCE THE THROTTLE TO IDLE WITHIN 1 - 2 SEC. _____
- NOTE THAT THE FUEL PRESSURE REACHES THE VALUE OF IDLE RECORDED EARLIER. THIS SHOULD NOT BE OVER 5 SEC. _____
- RPM AT IDLE SHOULD STABILIZE WITHIN 45 SEC AFTER RAPID DECELERATION
NOTE: IF THE RPM DROPS BELOW 54.5% DURING THROTTLING DOWN, CUT THE ENGINE OFF BY DISPLACING THE THROTTLE HANDLE TO THE "STOP" POSITION _____
12. CHECK DE-ICING SYSTEM
SWITCH ON DE-ICING , TPT WILL RISE 20 - 30 DEG. MAX. DE-ICING ON LIGHT WILL START SHINING _____
- SWITCH DE-ICING OFF. TPT WILL DECREASE AND DE-ICING LIGHT WILL GO OFF _____
13. CHECK ENGINE OVERHEAT PROTECTIVE SYSTEM
TURN GENERATOR OFF AND CLOSE COCKPIT AIR CONDITIONING. THE GENERATOR LIGHT AND AIR CONDITIONER OFF LIGHT SHALL COME ON _____
- SET THROTTLE TO nI 70% _____
- PT-12-9 SWITCH TO -CHECK I POSITION
700 DEG C LIGHT SHALL TURN ON AND RPM SHOULD START DIMINISHING. AS SOON AS RPM DIMINISHED BY 2 - 3 %, SWITCH PT-12-9 TO NEUTRAL POSITION. 700 DEG.

Czech Jet, Inc.

L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

LIGHT SHOULD GO OUT AND RPM SHOULD RETURN TO 70%. _____

TURN GENERATOR ON _____

- 14. LOW SPEED TAXI CHECK
BRAKE OPERATION _____
DIFFERENTIAL BRAKING _____
EMERGENCY BRAKING _____

- 15. EMERGENCY FUEL SYSTEM CHECK
 - 1. COCKPIT AIR CONDITIONING AND DE-ICE SYSTEM - OFF _____
 - 2. ADJUST RPM TO 70% _____
 - 3. EMERGENCY FUEL SWITCH ON _____
 - 4. 150 Kg FUEL LIT _____

NOTE: HPC RPM MAY CHANGE WHEN EMERGENCY FUEL IS TURNED ON _____

- 5. ADVANCE THROTTLE SMOOTHLY AND NOTE THE JUMP IN n1 RPM BY 3 - 4%. CHECK THIS RPM CHART ON PAGE 251, FIG. 41 OF AIRFRAME AND ENGINE MANUAL. 2% VARIATION IS ALLOWED. THE AIR BYPASS VALVES OF STAGE III AND STAGE V OPERATE SIMULTANEOUSLY WHEN THE EMERGENCY FUEL SYSTEM IS ON. THIS CHECK SHOULD BE DONE WITH GENERATOR OFF AND NO LOAD ON THE HYDRAULIC PUMP _____

NOTE: DO NOT ALLOW THE RPM TO DECREASE BELOW 56% WHEN USING THE EMERGENCY FUEL SYSTEM.

CAUTION:

DO NOT SWITCH FROM EMERGENCY FUEL SYSTEM TO THE MAIN SYSTEM WHEN THE ENGINE IS RUNNING.

SHUT THE ENGINE DOWN BY CLOSING THE THROTTLE TO THE STOP POSITION _____

NOTE TIME OF ENGINE RUN DOWN _____

Czech Jet, Inc.
L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

TAXI TEST

Brakes
Pressure levels

FLIGHT TEST

Controls
Trim levels
Fluid consumption
Smoke levels

MODIFIED AVIONICS LIST

COM1
COM2
NAV1
NAV2
GPS
XPNDR
INTERCOM
AUTOPILOT
STORMSCOPE
STROBES
ELT

MODIFIED AIRFRAME SYSTEMS

SMOKE
BODY FUEL
TIP TANKS
WING PYLONS

Czech Jet, Inc.
L39 VISUAL PRE-PURCHASE INSPECTION CHECKLIST

ACCESSORIES

- Manuals
 - FOM (x books)
 - IP (x books)
 - Joints (books)
- Seat / canopy safety pins
- Seat/mask/electrical interface block
- Oxygen Masks
- Oxygen regulators
- Flight Suits
- G Suits
- Ice cover
- Intake covers
- Port covers
- Pitot covers
- Fuselage covers
- Gust Lock
- Tip Tank wrench
- Tow Bar Adapterx
- Hydraulic adapters
- Wing Pylon Equipment
 - Fuel Pods
 - Baggage Pods
 - Rocket Pods
- Ground Support Equipment
 - Tow Bar
 - Jacks
 - Wing jacks
 - Fuselage Jacks
 - Tail Stand
 - Engine Stand

SPARES

- Engine
- Saphire
- A/C Turbo
- Fluids
- Oils
- Misc