	MERO 8.2.10.01

Assembly and Test Station

for

Eurofighter (Typhoon)

Client: **EADS Manching, Germany**

Supplier: **MERO GmbH & Co KG**
Max-Mengeringhausen-Str. 5
97084 Würzburg

Assembly- and Test Station B30 D 000074

(for device assemblies, engine installation and execution of system test)

Function, customer requirements

The assembly- and test stations have to be arranged so that all works could be performed in clock pulse procedure and could be used as well for single- as for two-seater A/C.

After wing assembly the aircraft will be pushed to the subsequent working stations on its own landing gear and will be positioned in the determined place. After this it will remain on the landing gear or it will be jacked-up for test execution so that a minimum clearance above the hangar floor is guaranteed.

After that, the platform elements have to be adjusted to the necessary levels and pushed and positioned to the forward fuselage (on both sides), to the fuselage tail (on both sides) as well as to the vertical stabilizer (one-sided).

The working levels have to guarantee an unhindered access to the cockpit and to all assembly locations of both A/C types. The individual working levels are easily movable and equipped with easily operable height-adjustment.

The forward working platforms has to be equipped with electric current and compressed-air. The power has to be led to the left platform over an extension arm (Eldrant).
For clocking this energy supply has to be carried out easily separable.

Description of the dock, Problem solution

Structure

The mirror-inverted installed forward fuselage platforms serve for works at fuselage forward part as well as centre part. In this area the access to the cockpits as well as to the avionic compartments for single-seater and two-seater are located.
In addition, the platforms serve as access for crossing to the wings covered with running mats.

The platforms consist of a base-frame made of welded Aluminium-sections. This frame stands on easy running brake- and detectable casters, which are oil- and fuel resistant.

The base frame is equipped with a height-adjustable upper part made of welded aluminium profiles and a working platform, which allows a variable state height. The height-adjustment is self-locking and could easily be operated.
The platform decking is performed in anti-slip.

An additional step is designed as access aid to the cockpit. If required, an additional, slide-out platform extends this step for the works at cockpit area.

The connection contour to the airplane is continuously padded with abrasion protection. Kick board prevents the unintentional falling down of small parts and/or tools from the working level.

Additional paddings at the lower side of the platform structure which projects over the wing prevent a damaging of the CFK-wing planking.

The access stair is height-adjustable and does not exceed the admissible stair inclination of 45°.

Components of the platform structure

- ✈ Left forward fuselage platform
- ✈ Right forward fuselage platform
- ✈ Tail platform (identical for the right and left side)
- ✈ Vertical stabilizer platform (usable on both sides of the aircraft)

Platform installation

Each platform side in the lower level is equipped with sufficient illumination, which allows the main works without an additional lamp.
Depending on the platform, they are equipped with sockets for electric power supply, compressed-air connections and cable rolling-up device.

A warning light on the outer side of both platforms announces the operation of the hydraulic system.
The electric installation will be connected to the hangar sided eldrant. The dock connection will be made via the left platform half (primary platform) with built-in protective current transformer and isolation check with audible / optical warning.
The earthing of the aircraft structure occurs via an earth wire of the hall sided eldrant to the aircraft earthing point. The earthing of the platform structure occurs via electrical installation.
The secondary platform will be supplied from the first one via easy connectable couplings.

The supply of compressed air via power extension arm and the transverse supply between the platforms occurs only through not oiled-air.

Front/rear dock in docked position:

Master-screen during assembly:


Rauchen verboten