

## Hydraulic Servicing Trolley

> **HST21DSKA-M1** < (Diesel Driven)

> **HST21ESKA-M1** < (Electrically Driven)



> HST21DSKA-M1 or HST21ESKA-M1 is part of the HST21 “family” and is designed for the use on the following aircraft types:

- AIRBUS A400M

> It can be adapted for other aircraft types as well.

> Infinitely variable pressure and flow regulation

> Air separation by vacuum tank

> Infinitely variable pressure and flow regulation

> Operation and indication on one Touch-screen-panel

> Service friendly by large maintenance flaps with gas springs

> RAT-Test for 5000psi with additional test device >RTI400M< possible

## GENERAL INFORMATION

- > Automatic tow bar brake
- > Cable reel and motor operated hose drums (separate button for each drum)
- > Operating elements are well arranged, user friendly and practical;  
Manual or automatic usage for calibration
- > Operation possible in open (usage of the HST-reservoir) and closed circuit (usage of the aircraft reservoir)
- > Increased hydraulics output by interconnection of both autonomous circuits to one big circuit
- > Filling and draining the aircraft reservoir
- > Automatic self test of the equipment during start

## DIFFERENCE BETWEEN HST21DSKA-M1 and HST21ESKA-M1

- > HST21DSKA-M1: drive of the hydraulic system by a central diesel motor, 152kW, 1,500rpm,
- > HST21ESKA-M1: drive of the hydraulic system by a commercial electrical motor with 132kW,  
The required electrical nominal current supply is 3/N/PE AC 50Hz with a  
mains fuse of 250A by means of a 15m long connecting cable.
- > Sound insulation max. 80.0dB(A), permanent noise emission max. 94.5dB(A) in 1m (3.3ft)  
distance to the HST21DSKA-M1
- > Sound insulation max. 75.5dB(A), permanent noise emission max. 78.9dB(A) in 1m (3.3ft)  
distance to the HST21ESKA-M1

## TECHNICAL DATA

### > Hydraulic parameters:

Compressed air: 8bar (116psi)  
200l/min (52.8USgal/min)

Main tank: Tank volume 270 liters

### > Electrical supply (requirements):

Mains connection: 3/PE AC 50Hz 400V,  
60Hz 380V

Nominal current: 250A

Performance: 173kVA

### > Dimensions and weight:

Length: 4.950mm (16.2ft)  
Width: 1.900mm (6.2ft)  
Height: 1.930mm (6.3ft)

Weight: 5.300kg (11.685lb)

### > Measurements:

Flow: 1 to 250l/min (0.3 to 66USgal/min)  
(2 off each) 0.02 to 4l/min (0.005 to 1.06USgal/min)  
±0.5% of full scale

Pressure: 0 to 400bar (0 to 5800psi)  
(2 off each) 0 to 16bar (0 to 230psi)  
±0.5% of full scale

Temperature: -40 to +100°C (-40 to +212°F)  
(2 off) ±1°C of full scale

### > Operating conditions:

Operating temperature: -32 to +55°C (-25.6 to +131°F)

Storage temperature: -40 to +71°C (-40 to +160°F)

Height: up to 3.048m (10,000ft)  
over MSL

Rel. air humidity: 10 to 95% (non-condensing)

Setup: up to "Fire Standard E10,  
Hangar's Zone 2"



## BRIEF TECHNICAL DESCRIPTION OF THE HST21DSKA-M1 / HST21ESKA-M1

### > General description

Control:	by means of PC, PLC and measuring system.
Self-test:	All relevant functions are tested automatically, reported and visualized on the screen.
Remote maintenance:	enables remote control, problem solution and correction.
Airfreight ability:	all required regulations are fulfilled.

### > Hydraulic parameters

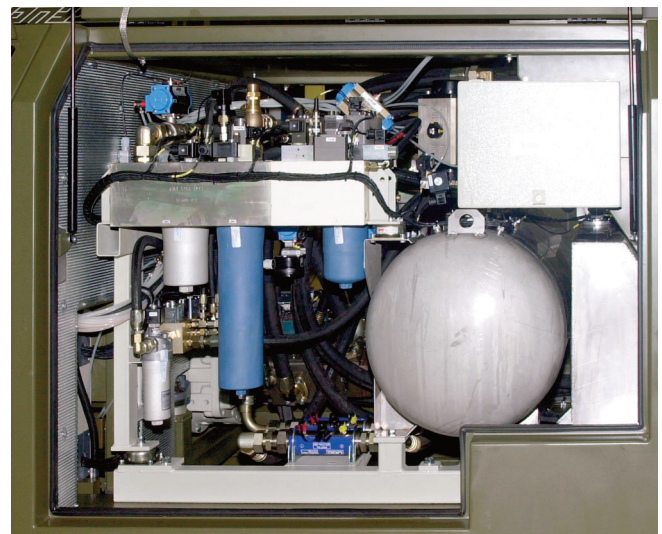
2 hydraulic systems:	each 110l/min, connected 220l/min, at 209bar
Hydraulic oil:	Phosphate Ester based hydraulic fluids type IV and V filter class 5, NAS 1638
Rinsing circuits:	Fluid sample taking and oil drain are provided Some direct connection is possible for the particle measuring system.
Aircraft tank:	Can be drained or filled by means of the return hoses with HST21E. The 15m long hydraulic hoses are located on the electrically driven hose drum

### > Flow

max. 2 x 110l/min (30USgal/min) of 2 separated pump circuits  
or 1 x 220l/min (60USgal/min) combined at 209bar (3,000psi)

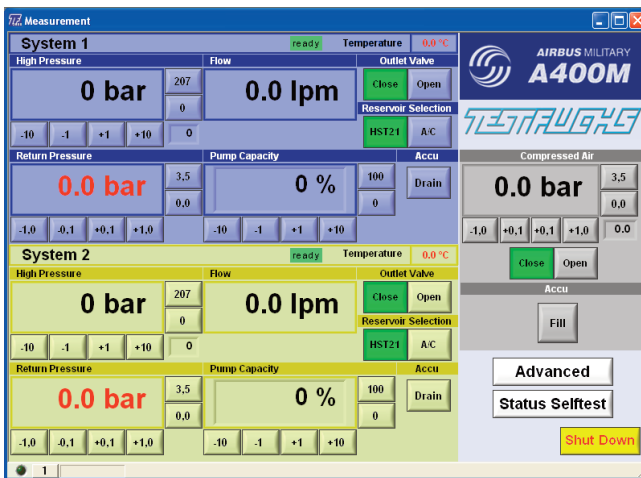
### > Return pressure

max. 10bar (145psi)

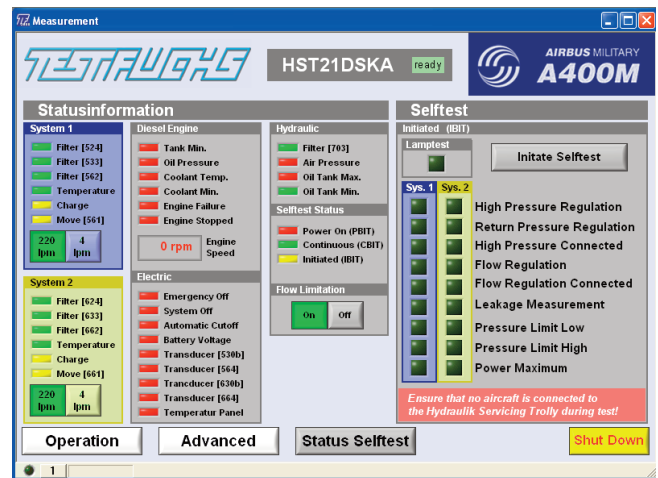




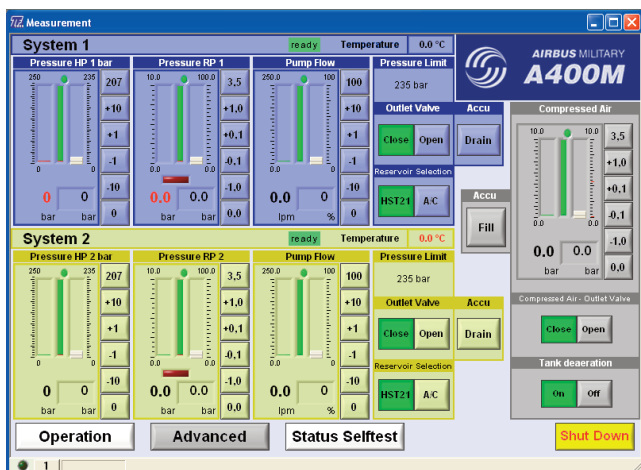
## BRIEF DESCRIPTION OF THE OPERATING SYSTEM



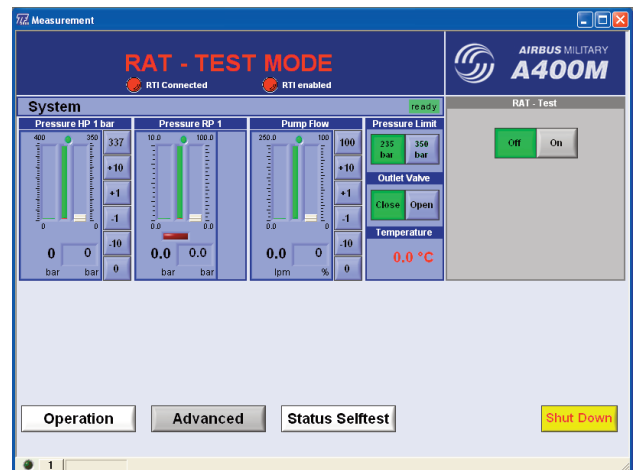
Main operating window



Status window



De-aeration window



RAT-Test mode (only with >RTI400M<)

- > The operation is carried out either via direct input of the required data on the touch screen panel or, if required, via the number block. Connection to a keyboard, e.g. for programming tasks is possible.
- > Test results can be stored and downloaded on digital media.
- > The function and the sequence of the operating windows are adapted to the working process on the A/C.
- > Limits of a certain A/C type, e.g.: flow, pressure, temperature, can be preset in order to exclude operating errors.
- > Pages can be changed over by, well arranged, switching surfaces.
- > Warning and error messages are displayed as clear text indication.