

## d) Oil Pressure

Minimum: 11.6 psi (0.8 bar) below 590 RPM  
Normal: 29 –72.5 psi (2.0-5.0 bar) above 590 RPM  
Maximum during a cold start: 101.5 psi (7.0 bar)  
(only for a short time)

## e) Fuel Pressure

Minimum: red warning light

## f) Oil Temperature

Maximum: 266 °F (130 °C)  
Minimum: 122 °F ( 50 °C)

## g) Cylinder Head Temperature (CHT)

Maximum: 248 °F (120 °C)

## h) Minimum temperature to start the engine

Minimum: -13 °F (-25 °C)  
At an OAT below -13 °F (-25 °C) the engine must be preheated.

**2.4.2 Propeller**

a) Manufacturer: mt-Propeller Entwicklung GmbH, Atting, Germany

b) Model: MTV-21-A/170-05

c) Propeller diameter: (66.9 in) 1,70 m

## d) Propeller speed limitations

Maximum take-off propeller speed (max. 5 min): 2385 RPM

Maximum continuous propeller speed: 2260 RPM

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## 2.5 MARKINGS ON POWER PLANT INSTRUMENTS

The following table shows the instrument markings on the power plants and their meaning.

| Instrument                                     | Red Line<br>(minimum) | Green Arc<br>(normal<br>operating range) | Yellow Arc<br>(caution)                                 | Red Line<br>(maximum) |
|--|-----------------------|--|---|-----------------------|
| Tachometer<br>[RPM]                            | ---                   | 535 – 2260                               | 2260 - 2385   | 2385                  |
| Oil Temperature<br>[°F]<br>([°C])              | 122<br>(50)           | 122-266<br>(50 – 130)                    | ---   | 266<br>(130)          |
| Cylinder Head<br>Temperature<br>[°F]<br>([°C]) | ---                   | ---                                      | ---   | 248<br>(120)          |
| Oil Pressure<br>[psi]<br>([bar])               | 11.6<br>(0.8)         | 29 – 72.5<br>(2.0 – 5.0)                 | 11.6 – 29<br>(0.8 – 2.0)<br>72.5 – 101.5<br>(5.0 – 7.0) | 101.5<br>(7.0)        |

## 2.6 MARKINGS ON OTHER INSTRUMENTS

| Instrument         | Red Arc<br>(minimum) | Green / Red or<br>Yellow Arc<br>(caution) | Green Arc<br>(normal operating<br>range) | Red Arc<br>(maximum) |
|--------------------|----------------------|---|--|----------------------|
| Voltmeter<br>[V]   | 8 – 11               | 11 – 12,5                                 | 12,5 – 15,5                              | 15,5 – 16            |
| Amperemeter<br>[A] | ---                  | ---                                       | ---                                      | ---                  |

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Normal: 29 –72.5 psi (2.0-5.0 bar) above 590 RPM  
Maximum during a cold start: 101.5 psi (7.0 bar)  
(only for a short time)

## e) Fuel Pressure

Minimum: 2.2 psi (0.15 bar)  
Maximum: 5.8 psi (0.40 bar)

## f) Oil Temperature

Maximum: 266 °F (130 °C)  
Minimum: 122 °F ( 50 °C)

## g) Cylinder Head Temperature (CHT)

Maximum: 264 °F (120 °C)

## h) Minimum temperature to start the engine

Minimum: -13 °F ( -25 °C)

At an OAT below -13 °F (-25 °C) the engine must be preheated.

**2.4.2 Propeller**

a) Manufacturer: mt-Propeller Entwicklung GmbH, Atting, Germany

b) Model: MTV-21-A/170-05

c) Propeller diameter: (66.9 in) 1,70 m

## d) Propeller speed limitations

Maximum take-off propeller speed (max. 5 min): 2385 RPM

Maximum continuous propeller speed: 2260 RPM

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## 2.5 MARKINGS ON POWER PLANT INSTRUMENTS

The following table shows the instrument markings on the power plants and their meaning.

| Instrument                                     | Red Line<br>(minimum) | Green Arc<br>(normal<br>operating range) | Yellow Arc<br>(caution)                                 | Red Line<br>(maximum) |
|--|-----------------------|--|---|-----------------------|
| Tachometer<br>[RPM]                            | ---                   | 535 – 2260                               | 2260 - 2385   | 2385                  |
| Oil Temperature<br>[°F]<br>([°C])              | 122<br>(50)           | 122-266<br>(50 – 130)                    | ---   | 266<br>(130)          |
| Cylinder Head<br>Temperature<br>[°F]<br>([°C]) | ---                   | ---                                      | ---   | 248<br>(120)          |
| Oil Pressure<br>[psi]<br>([bar])               | 11.6<br>(0.8)         | 29 – 72.5<br>(2.0 – 5.0)                 | 11.6 – 29<br>(0.8 – 2.0)<br>72.5 – 101.5<br>(5.0 – 7.0) | 101.5<br>(7.0)        |

## 2.6 MARKINGS ON OTHER INSTRUMENTS

| Instrument         | Red Arc<br>(minimum) | Green / Red or<br>Yellow Arc<br>(caution) | Green Arc<br>(normal operating<br>range) | Red Arc<br>(maximum) |
|--------------------|----------------------|---|--|----------------------|
| Voltmeter<br>[V]   | 8 – 11               | 11 – 12,5                                 | 12,5 – 15,5                              | 15,5 – 16            |
| Amperemeter<br>[A] | ---                  | ---                                       | ---                                      | ---                  |

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Minimum: 11.6 psi (0.8 bar) below 590 RPM  
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Maximum during a cold start: 101.5 psi (7.0 bar)  
(only for a short time)

## e) Fuel Pressure

Minimum: 2.2 psi (0.15 bar)  
Maximum: 5.8 psi (0.40 bar)

## f) Oil Temperature

Maximum: 266 °F (130 °C)  
Minimum: 122 °F ( 50 °C)

## g) Cylinder Head Temperature (CHT)

Maximum: 248 °F (120 °C)

## h) Minimum temperature to start the engine

Minimum: -13 °F ( -25 °C)

At an OAT below -13 °F (-25 °C) the engine must be preheated.

**2.4.2 Propeller**

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## d) Propeller speed limitations

Maximum take-off propeller speed (max. 5 min): 2385 RPM

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## 2.5 MARKINGS ON THE ENGINE MONITOR MVP-50P-AQ

The following table shows the instrument markings shown on the MVP-50P-AQ and their meaning.

| MVP-50P-AQ                                     | Red Line<br>(minimum) | Green Arc<br>(normal<br>operating range) | Yellow Arc<br>(caution)                                 | Red Line<br>(maximum) |
|--|-----------------------|--|---|-----------------------|
| Tachometer<br>[RPM]                            | ---                   | 535 – 2260                               | 2260 - 2385   | 2385                  |
| Oil Temperature<br>[°F]<br>([°C])              | 122<br>(50)           | 122-266<br>(50 – 130)                    | ---   | 266<br>(130)          |
| Cylinder Head<br>Temperature<br>[°F]<br>([°C]) | ---                   | ---                                      | ---   | 248<br>(120)          |
| Oil Pressure<br>[psi]<br>([bar])               | 11.6<br>(0.8)         | 29 – 72.5<br>(2.0 – 5.0)                 | 11.6 – 29<br>(0.8 – 2.0)<br>72.5 – 101.5<br>(5.0 – 7.0) | 101.5<br>(7.0)        |
| Voltmeter<br>[V]                               | 11                    | 12.5 - 15.5                              | 11 - 12.5   | 15.5                  |

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