

# 747-400 Freighter performance summary 747

## General Electric engines

|  |  | Basic                    | Option <sup>2</sup>      | Option <sup>3</sup>               |
|--|--|--------------------------|--------------------------|-----------------------------------|
| <b>Cargo</b>   | <b>MD pallets/LD pallets/LD containers<sup>1</sup></b> | <b>30/9/2</b>            |                          |                                   |
| <b>Engines</b>                                       |  | <b>CF6-80C2-B1F</b>      | <b>CF6-80C2-B5F</b>      | <b>CF6-80C2-B-1F</b>              |
| <b>SL-standard day thrust/flat-rated temperature</b> | <b>lb/°F</b>   | <b>56,500/90</b>         | <b>62,100/86</b>         | <b>56,500/90</b>                  |
| <b>Maximum taxi weight</b>                           | <b>lb (kg)</b>   | <b>803,000</b> (364,240) | <b>878,000</b> (398,260) | <b>814,000</b> (369,230)          |
| <b>Maximum takeoff weight</b>                        | <b>lb (kg)</b>   | <b>800,000</b> (362,880) | <b>875,000</b> (396,900) | <b>811,000</b> (367,870)          |
| <b>Maximum landing weight</b>                        | <b>lb (kg)</b>   | <b>652,000</b> (295,750) | <b>652,000</b> (295,750) | <b>666,000</b> (302,100)          |
| <b>Maximum zero fuel weight</b>                      | <b>lb (kg)</b>   | <b>610,000</b> (276,700) | <b>610,000</b> (276,700) | <b>635,000</b> (288,040)          |
| <b>Operating empty weight<sup>4</sup></b>            | <b>lb (kg)</b>   | <b>361,700</b> (164,060) | <b>361,700</b> (164,060) | <b>361,700</b> (164,060)          |
| <b>Tare weight</b>                                   | <b>lb (kg)</b>   | <b>12,010</b> (5,450)    | <b>12,010</b> (5,450)    | <b>12,010</b> (5,450)             |
| <b>Fuel capacity</b>                                 | <b>U.S. gal (L)</b>                                    | <b>53,765</b> (203,515)  | <b>53,765</b> (203,515)  | <b>53,765</b> (203,515)           |
| <b>Structural payload</b>                            | <b>lb (kg)</b>   | <b>248,300</b> (112,630) | <b>248,300</b> (112,630) | <b>273,300</b> (123,970)          |
| <b>Design range (at structural payload)</b>          | <b>nmi (km)</b>  | <b>3,180</b> (5,890)     | <b>4,445</b> (8,230)     | <b>2,815</b> (5,210) <sup>5</sup> |
| <b>Cruise Mach</b>                                   |  | <b>0.845</b>             | <b>0.845</b>             | <b>0.845</b>                      |
| <b>Takeoff field length (SL, 86°F, MTOW)</b>         | <b>ft (m)</b>  | <b>9,250</b> (2,820)     | <b>10,150</b> (3,095)    | <b>9,550</b> (2,926)              |
| <b>Initial cruise altitude (MTOW, ISA + 10°C)</b>    | <b>ft (m)</b>  | <b>34,500</b> (10,516)   | <b>32,600</b> (9,936)    | <b>34,200</b> (10,424)            |
| <b>Landing field length (MLW)</b>                    | <b>ft (m)</b>  | <b>7,150</b> (2,180)     | <b>7,150</b> (2,180)     | <b>7,350</b> (2,240)              |
| <b>Approach speed (MLW)</b>                          | <b>kn</b>  | <b>157</b>               | <b>157</b>               | <b>158</b>                        |
| <b>Block fuel data</b>                               |  |                          |                          |                                   |
| <b>3,000-nmi mission</b>                             | <b>lb (kg)</b>   | <b>150,780</b> (68,390)  | <b>150,780</b> (69,390)  | <b>103,240</b> (46,830)           |

- Typical mission rules

<sup>1</sup> 96- x 125-in pallets/LD-1 containers

<sup>2</sup> Highest available MTOW. Only available with 610,000-lb MZFW

<sup>3</sup> Highest available MZFW. Only available with 811,000-lb MTOW

Operating restrictions require linear reduction in MTOW with MZFW increase from 610,000 to 635,000 lb.

<sup>4</sup> Includes tare weight

<sup>5</sup> Maximum landing weight limited

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## Pratt & Whitney engines

|  |  | Basic                    | Option <sup>2</sup>      | Option <sup>3</sup>               |
|--|--|--------------------------|--------------------------|-----------------------------------|
| <b>Cargo</b>   | <b>MD pallets/LD pallets/LD containers<sup>1</sup></b> | <b>30/9/2</b>            |                          |                                   |
| <b>Engines</b>                                       |  | <b>PW4056</b>            | <b>PW4062</b>            | <b>PW5056</b>                     |
| <b>SL-standard day thrust/flat-rated temperature</b> | <b>lb/°F</b>   | <b>57,100/92</b>         | <b>63,300/86</b>         | <b>57,100/92</b>                  |
| <b>Maximum taxi weight</b>                           | <b>lb (kg)</b>   | <b>803,000</b> (364,240) | <b>877,000</b> (397,800) | <b>814,000</b> (369,230)          |
| <b>Maximum takeoff weight</b>                        | <b>lb (kg)</b>   | <b>800,000</b> (362,880) | <b>875,000</b> (396,900) | <b>811,000</b> (367,870)          |
| <b>Maximum landing weight</b>                        | <b>lb (kg)</b>   | <b>652,000</b> (295,750) | <b>652,000</b> (295,750) | <b>666,000</b> (302,100)          |
| <b>Maximum zero fuel weight</b>                      | <b>lb (kg)</b>   | <b>610,000</b> (276,700) | <b>610,000</b> (276,700) | <b>635,000</b> (288,040)          |
| <b>Operating empty weight<sup>4</sup></b>            | <b>lb (kg)</b>   | <b>362,500</b> (164,430) | <b>362,500</b> (164,430) | <b>362,500</b> (164,430)          |
| <b>Tare weight</b>                                   | <b>lb (kg)</b>   | <b>12,010</b> (5,450)    | <b>12,010</b> (5,450)    | <b>12,010</b> (5,450)             |
| <b>Fuel capacity</b>                                 | <b>U.S. gal (L)</b>                                    | <b>53,985</b> (204,350)  | <b>53,985</b> (204,350)  | <b>53,985</b> (204,350)           |
| <b>Structural payload</b>                            | <b>lb (kg)</b>   | <b>247,500</b> (112,265) | <b>247,500</b> (112,265) | <b>272,500</b> (123,610)          |
| <b>Design range (at structural payload)</b>          | <b>nmi (km)</b>  | <b>3,180</b> (5,890)     | <b>4,465</b> (8,270)     | <b>2,835</b> (5,250) <sup>5</sup> |
| <b>Cruise Mach</b>                                   |  | <b>0.845</b>             | <b>0.845</b>             | <b>0.845</b>                      |
| <b>Takeoff field length (SL, 86°F, MTOW)</b>         | <b>ft (m)</b>  | <b>9,250</b> (2,820)     | <b>9,800</b> (2,990)     | <b>9,550</b> (2,911)              |
| <b>Initial cruise altitude (MTOW, ISA + 10°C)</b>    | <b>ft (m)</b>  | <b>34,500</b> (10,516)   | <b>32,600</b> (9,936)    | <b>34,300</b> (10,455)            |
| <b>Landing field length (MLW)</b>                    | <b>ft (m)</b>  | <b>7,150</b> (2,180)     | <b>7,150</b> (2,180)     | <b>7,350</b> (2,240)              |
| <b>Approach speed (MLW)</b>                          | <b>kn</b>  | <b>157</b>               | <b>157</b>               | <b>158</b>                        |
| <b>Block fuel data</b>                               |  |                          |                          |                                   |
| <b>3,000-nmi mission</b>                             | <b>lb (kg)</b>   | <b>149,900</b> (67,990)  | <b>149,900</b> (67,990)  | <b>103,120</b> (46,775)           |

- Typical mission rules

<sup>1</sup> 96- x 125-in pallets/LD-1 containers

<sup>2</sup> Highest available MTOW. Only available with 610,000-lb MZFW

<sup>3</sup> Highest available MZFW. Only available with 811,000-lb MTOW

Operating restrictions require linear reduction in MTOW with MZFW increase from 610,000 to 635,000 lb.

<sup>4</sup> Includes tare weight

<sup>5</sup> Maximum landing weight limited

# 747-400 Freighter performance summary 747

## Rolls-Royce engines

|  |  | Basic                    | Option <sup>2</sup>      | Option <sup>3</sup>               |
|--|--|--------------------------|--------------------------|-----------------------------------|
| <b>Cargo</b>   | <b>MD pallets/LD pallets/LD containers<sup>1</sup></b> | <b>30/9/2</b>            |                          |                                   |
| <b>Engines</b>                                       |  | <b>RB211-524G-T</b>      | <b>RB211-524H-T</b>      | <b>RB211-524G-T</b>               |
| <b>SL-standard day thrust/flat-rated temperature</b> | <b>lb/°F</b>   | <b>56,400/86</b>         | <b>59,500/86</b>         | <b>56,400/86</b>                  |
| <b>Maximum taxi weight</b>                           | <b>lb (kg)</b>   | <b>803,000</b> (364,240) | <b>877,000</b> (397,800) | <b>814,000</b> (369,230)          |
| <b>Maximum takeoff weight</b>                        | <b>lb (kg)</b>   | <b>800,000</b> (362,880) | <b>875,000</b> (396,900) | <b>811,000</b> (367,870)          |
| <b>Maximum landing weight</b>                        | <b>lb (kg)</b>   | <b>652,000</b> (295,750) | <b>652,000</b> (295,750) | <b>666,000</b> (302,100)          |
| <b>Maximum zero fuel weight</b>                      | <b>lb (kg)</b>   | <b>610,000</b> (276,700) | <b>610,000</b> (276,700) | <b>635,000</b> (288,040)          |
| <b>Operating empty weight<sup>4</sup></b>            | <b>lb (kg)</b>   | <b>363,800</b> (165,020) | <b>363,800</b> (165,020) | <b>363,800</b> (165,020)          |
| <b>Tare weight</b>                                   | <b>lb (kg)</b>   | <b>12,010</b> (5,450)    | <b>12,010</b> (5,450)    | <b>12,010</b> (5,450)             |
| <b>Fuel capacity</b>                                 | <b>U.S. gal (L)</b>                                    | <b>53,985</b> (204,350)  | <b>53,985</b> (204,350)  | <b>53,985</b> (204,350)           |
| <b>Structural payload</b>                            | <b>lb (kg)</b>   | <b>246,200</b> (111,675) | <b>246,200</b> (111,675) | <b>272,200</b> (123,015)          |
| <b>Design range (at structural payload)</b>          | <b>nmi (km)</b>  | <b>3,100</b> (5,740)     | <b>4,365</b> (8,050)     | <b>2,765</b> (5,120) <sup>5</sup> |
| <b>Cruise Mach</b>                                   |  | <b>0.845</b>             | <b>0.845</b>             | <b>0.845</b>                      |
| <b>Takeoff field length (SL, 86°F, MTOW)</b>         | <b>ft (m)</b>  | <b>9,350</b> (2,850)     | <b>10,750</b> (3,280)    | <b>9,600</b> (2,926)              |
| <b>Initial cruise altitude (MTOW, ISA + 10°C)</b>    | <b>ft (m)</b>  | <b>34,500</b> (10,516)   | <b>32,600</b> (9,936)    | <b>34,200</b> (10,424)            |
| <b>Landing field length (MLW)</b>                    | <b>ft (m)</b>  | <b>7,150</b> (2,180)     | <b>7,150</b> (2,180)     | <b>7,350</b> (2,240)              |
| <b>Approach speed (MLW)</b>                          | <b>kn</b>  | <b>157</b>               | <b>157</b>               | <b>158</b>                        |
| <b>Block fuel data</b>                               |  |                          |                          |                                   |
| <b>3,000-nmi mission</b>                             | <b>lb (kg)</b>   | <b>153,840</b> (69,780)  | <b>153,840</b> (69,780)  | <b>105,610</b> (47,900)           |

- Typical mission rules

<sup>1</sup> 96- x 125-in pallets/LD-1 containers

<sup>2</sup> Highest available MTOW. Only available with 610,000-lb MZFW

<sup>3</sup> Highest available MZFW. Only available with 811,000-lb MTOW

Operating restrictions require linear reduction in MTOW with MZFW increase from 610,000 to 635,000 lb.

<sup>4</sup> Includes tare weight

<sup>5</sup> Maximum landing weight limited