

Bliss-Fox F1-500 operated by Toll Dnata Airport Services
Singapore Airlines A380-800 Aircraft
Sydney Airport, 27 October 2007

Our Product

Aircraft Tractor

Model: F1-500 | 54-70 Tonnes



TECHNICAL SPECIFICATIONS FOR STANDARD

The Bliss-Fox Flagship F1-500 Aircraft Tractor is designed in Australia for both pushback and extended towing of aircraft up to 600 Tonnes (A380-800F). Drop-in ballast in the F1-500 easily transforms the tractor from a standard 54 Tonnes for A340 & B747 up to 70 Tonnes for A380-800F with no obstruction to the operators' line-of-sight.

With **power to spare** the F1-500 features a 360kW (483hp) Diesel Engine with 1990 Nm (1468 Ft/lbs) of Torque. This modern styled, unique tractor is built on our exclusive integral perimeter frame chassis. This chassis is guaranteed for life.

The F1-500 is easy-to-maintain with simple lift off covers surrounding the oversized engine bay and easy-to operate with a fully enclosed cabin, extra-wide doors and optional hot/cold air-conditioning.

Aircraft Tractor

Model: F1-400 | 40-50 Tonnes



TECHNICAL SPECIFICATIONS FOR STANDARD

The Bliss-Fox F1-400 Aircraft Tractor is designed in Australia for both pushback and extended towing of aircraft up to 440 Tonnes (B747-8). Drop-in ballast in the F1-400 easily transforms the tractor from a standard 40 Tonnes for A340 & B777 up to 50 Tonnes for B747-8 with no obstruction to the operators' line-of-sight.

With **power to spare** the F1-400 features a 360kW (483hp) Diesel Engine with 1990 Nm (1468 Ft/lbs) of Torque. This modern styled, unique tractor is built on our exclusive integral perimeter frame chassis. This chassis is guaranteed for life. The F1-400 is easy-to-maintain with simple lift off

Panus - Ground Support Equipment

Our Product

Aircraft Tractor

Model: F1-300 | 27-35 Tonnes



TECHNICAL SPECIFICATIONS FOR STANDARD

The Bliss-Fox F1-300 Aircraft Tractor is designed in Australia for both pushback and extended towing of aircraft up to 340 Tonnes. Drop-in ballast in the F1-300 easily transforms the tractor from a standard 27 Tonnes for A330 & B787 up to 35 Tonnes for A340 & B777 with no obstruction to the operators' line-of-sight.

With power to spare the F1-300 features a 200kW (268 hp) Diesel Engine with 1100 Nm (811 Ft/lbs) of Torque. This modern styled, unique tractor is built on our exclusive integral perimeter frame chassis. This chassis is guaranteed for life. The F1-300 is easy-to-maintain with simple lift off covers surrounding the oversized engine bay and easy-to-operate with a fully enclosed cabin and optional hot/cold air-conditioning.

Aircraft Tractor

Model: F1-150 | 12-16 Tonnes



TECHNICAL SPECIFICATIONS FOR STANDARD

The Bliss-Fox F1-150 Aircraft Tractor is designed in Australia for both pushback and extended towing of aircraft from 100-165 Tonnes. The F1-150 is purpose built with all narrow body aircraft in mind. Ideally suited for pushback & towing of all A321 & B737 aircraft

With power to spare the all new F1-150 features a 103 kW (138 hp) Diesel Engine with 520 Nm (384 Ft/lbs) of torque. This modern styled, unique tractor is available as a standard 12 Tonne base model with options for additional 4 Tonnes of ballast and hot/cold air-conditioning optional hot/cold air-conditioning.

Panus - Ground Support Equipment

Our Product

Aircraft & Cargo Tractor
Model: P1-60 | 6-9 Tonnes



TECHNICAL SPECIFICATIONS FOR STANDARD

The Bliss-Fox P1-60 Cargo & Aircraft towing tractor is designed in Australia for both pushback and extended towing of Cargo & Aircraft.

This tractor is designed and popular for short-hauls of aircrafts. Ideally suited for pushback & towing on all narrow body aircraft families.

With **power to spare** the P1-60 features a 94.5 kW Power Diesel Engine.

This modern styled, unique tractor is available as a standard 6 Tonnes base model with options for additional 3 Tonnes of ballast, fully enclosed cabin and hot/cold air-conditioning.

Aircraft Tractor
Model: F1-80 | 8-12 Tonnes



TECHNICAL SPECIFICATIONS FOR STANDARD

The Bliss-Fox F1-80 Aircraft Tractor is designed in Australia for both pushback and extended towing of aircraft up to 90 Tonnes. The F1-80 is purpose built with the popular short-haul aircraft in mind. Ideally suited for pushback & towing of all A320 & B737 aircraft.

With **power to spare** the F1-80 features a 103kW (138hp) Diesel Engine with 520 Nm (384 Ft/lbs) of torque. This modern styled, unique tractor is available as a standard 8 Tonne base model with options for additional 4 Tonnes of ballast, fully enclosed cabin and hot/cold air-conditioning.

Panus - Ground Support Equipment

Our Product

Baggage & Cargo Towing Tractor
 Model: F1-40 | 4 Tonnes

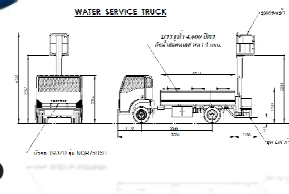


TECHNICAL SPECIFICATIONS FOR STANDARD

The F1-40 Tractor designed for both pushback and extended towing of Cargo & Aircraft up to 33 Tonnes and hauling a train of trailers up to 40 Tonnes.

This modern styled, unique tractor is available as a standard 4 Tonnes base model with option for Cabin, Air-conditioning and hydraulically actuated tow-hitch

Potable Water Service & Lavatory Service Truck
 Model: PA-WSU-02, PA-LVU-02 | 4600L



TECHNICAL SPECIFICATIONS FOR STANDARD

- Truck , 24 VDC
- Max service height 4350 mm
- Stainless steel tank
- 4,600 L capacity of water tank
- Manhole Ø500 mm
- Hydraulic platform with 4.35 m platform service height
- Stainless water pump ; 3.5 bar, 90-120 l/min.
- Initializable water counter
- Washing water hose by 1", 5 m.
- Aluminum water coupling by 1" and its guide
- Headlight on the platform

Panus - Ground Support Equipment

Our Product

Passenger Step Vehicle Model: PA-PSV-01



TECHNICAL SPECIFICATIONS FOR STANDARD

- Min. – max service heights 2450 – 5750 mm
- Passenger capacity 50 persons
- Steel construction, white color painted acrylic carriage chassis.
- Electrical controlled hydraulic valves
- Hand pump for emergency hydraulic operations
- 5 stabilizers
- Swivel type front platform to compensate for Vehicle aligning up to 5 °.
- Hydraulic cylinder with Counterbalance locking valves Adjustable Platform (height and angle)
- Telescopic cylinder.
- lighting under Platform

Passenger Stairway Towable (Adjustable) Model : PA-PSWA-01



TECHNICAL SPECIFICATIONS FOR STANDARD

- Adjust service 2.00-3.70 M
- Maximum Loading per step 2 person /160 kg
- Aluminum Step Size 300 x 1200 mm
- Maximum Loading of front platform 6 person /450 kg
- Aluminum platform 1600 x 2000 mm
- Type 4 solid rubber tires 4.00-8
- Brake system acting on front wheels when tow bar is up-rised
- Axles front & rear Solid mount steering by turntable
- Net weight 1,600 kg
- Handrails of the front platform, sliding on the both side with bumper at the front riser

Panus - Ground Support Equipment

Our Product

Potable Water Service Pick up Truck 1500L
Model: PA-WSU-01

Lavatory Service Pick up Truck 1500L
Model: PA-LVU-01



TECHNICAL SPECIFICATIONS FOR STANDARD

- Water Capacity (1500L)
- Tank Stainless SS316 4mm
- Pump 750 W,24V DC, Flow 90L/min Pressure 5 Bar
- Meters Fill-Rite show the three-digit number.
- Water coupling 1" Lavatory Water hose 1" 5 M.

TECHNICAL SPECIFICATIONS FOR STANDARD

- Lavatory Capacity (1000L ,500L)
- Tank Stainless SS304 4mm
- Stainless Pipe & Fittings (Waste 4"& water 1")
- Pump 12V Flow 10 GPM Pressure 60Psi
- Meters Fill-Rite show the three-digit number.
- Water coupling 1" Lavatory Water hose 1" 5 M.
- Coupling,comp quick release lavatory hose

Panus - Ground Support Equipment

Our Product

Pallet Dolly 10'
Model: PA-PLD10-01



TECHNICAL SPECIFICATIONS FOR STANDARD

- Carrying chassis, completely steel construction
- P1, P6 pallets carrying capacity
- Service height of rollers , 508 mm
- 3 row carrying rollers , 2" galvanized pipes
- Folding lama stoppers in the middle
- 4 ea solid tires at the rear and two partial steel rims, 4.00 x 8"
- Swivel tire group are capable to rotate 360° to ease turning
- 4 ea solid tires at the front and two partial molded rims, 4.00 x 8"
- Pintle hook type
- Towbar , made of profiles
- Park brake system , actuated via towbar
- Guide plates at both side
- Reflective warning colour on the chassis

Passenger Stairway Towable (Fix)
Model: PA-PSWF-01



TECHNICAL SPECIFICATIONS FOR STANDARD

- Maximum Loading per step 2 person / 160 kg
- Maximum Loading of front platform 3 person /240 kg
- Aluminum Step Size 300x1200mm
- Type 4 solid rubber tires 4.00-8
- Brake system acting on front wheels when tow bar is up-rised
- Axles front&rear Solid mount steering by turntable
- Net weight 1,425 kg
- Handrails of the front platform,sliding on the both side with bumper at the front riser

Optional

- Structure made of steel profiles fixed to cover the ramp and slide to cover the platform
- Conopy made of aluminium plate 1 mm

Panus - Ground Support Equipment

Our Product

Container Dolly LD3
Model: PA-CTD3-01



TECHNICAL SPECIFICATIONS FOR STANDARD

Dimension Approximate	: 1,700 x 3,580 x 550 mm
Net Weight	: 590 kg
Capacity	: Max Weight 1,588 kg (3,500 Lb)
Wheelbase	: 1,517 mm
Towing Eye Bar	: 40 mm
Rim Wheel	: Steel Rim Size 3.00D-8
Tire	: Solid Tire 4.00-8
Driving Speed	: 15 km/h (9mph)
Brake System	: Towing bar function as an immobilization brake when folded up.
Colour	: Customer color painting.
Other	: Free Roller R60M 2.3-500 EZ
Multi	LD1 , LD2 , LD3

Container Dolly LD4
Model: PA-CTD4-01



TECHNICAL SPECIFICATIONS FOR STANDARD

- Carrying Capacity, 1800 kg
- Capable to carry ; LD2 LD3 and LD4 containers
- Pintle hook type rear tow hitch
- 2" galvanized carriage rollers
- Automatic spring loaded stoppers
- Guide plates at both side.
- 360° rotation capacity of upper chassis
- Locking mechanism at every 90° rotation of upper chassis.
- Perforated Walkway at upper chassis.
- Roller service height 20" (508 mm)
- Solid tires , two partial steel rims, 4.00 x 8"
- Park brake system , actuated via towbar
- Reflective warning colour on the chassis

Panus - Ground Support Equipment

Our Product

Baggage Cart Model: PA-BGC1-01



TECHNICAL SPECIFICATIONS FOR STANDARD

- Carrying Capacity 1800 kg.
- Platform by 1500 x 3000 mm
- Front carriage system with turn table.
- Solid rubber tires and steel rims, 4.00 x 8"
- Brake capability at towbar vertical and horizontal position.
- Pintle hook type
- Single Open side

Optional

- Rubber shock holders at the corners.
- Customer color painting.
- Pneumatic tires and steel rims, 5.00 x 8"

Cargo Cart Model: PA-CGC-01



TECHNICAL SPECIFICATIONS FOR STANDARD

- Carrying Capacity 2000 kg.
- Platform by 1500 x 3000 mm
- Front carriage system with turn table.
- Solid rubber tires and steel rims, 4.00 x 8"
- Brake capability at towbar vertical and horizontal position.
- Pintle hook type

Optional

- Rubber shock holders at the corners.
- Customer color painting.
- Pneumatic tires and steel rims, 5.00 x 8"

Panus - Ground Support Equipment

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BLISS-FOX
by PANUS  GSE



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