

# Expediter 400



## Towbarless Pushback and Maintenance Tow Tractor

Heavy-duty dependability with the muscle to move the largest commercial aircraft

The Expediter 400 brings ultimate towbarless tractor efficiency and convenience to the handling of large aircraft.

Designed to service aircraft from the A-310 to the B-767, to the A-340 and B-747-400. Offering greater safety, simplicity, and the economical option of one-man operation.

The Expediter 400 brings many benefits to the aircraft towing operation that cannot be accomplished by conventional tow tractors. These include:

- The elimination of all towbars and related logistical problems, accidents and injuries
- Provides opportunity to reduce the number of tractors and manpower required
- The ability to maintain aircraft ground speeds on taxi-way while towing an aircraft
- Easier to maneuver the aircraft
- Rotating driver's seat for ergonomic comfort and improved visibility
- Hydrostatic drive offering smoother acceleration and dynamic braking

In addition to aircraft towing enhancements over conventional tractors, the Expediter 400 has the following safety features:

- Integrated Yaw stabilized braking system to prevent the tractor from losing control during high speed towing operations
- Nose landing gear safely locked in the tractor's cradle preventing the aircraft from escaping
- No jerking or vibrations to the nose landing gear when accelerating and braking
- Automatic aircraft type selection—to automatically set the appropriate traction and braking forces
- Oversteer alerting device (OAD)
- Simple emergency nose landing gear release system



### Standard Features:

- Full vision high comfort cab
- Rotating drivers seat
- Twin steering wheels for dual facing control
- Twin accelerator pedals
- Twin brake pedals hydraulically actuated
- Joystick lever for pick-up device
- Lever for parking brake
- Emergency aircraft release
- Ignition switch with anti-restart

### Optional Features:

- Air conditioning
- Alternative cabin heating system
- Electronic front and rear window heating
- Engine & Hydraulic oil gauges
- Ground Power Unit
- Winterization protection
- Auto-lubrication system
- Camera and monitor system
- Aircraft illumination strobe lights
- External power supply plug 24Vdc
- Electro-hydraulic pump for auxiliary power supply
- Intercom jacks and cable system
- Fire extinguishers

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# Specification

# Expediter 400

**Gross Vehicle Weight** 20,600 kg (45,400 lb) Without GPU

**Maximum Tractive Effort** 150kN (33,100 lbf)

**Maximum Towing Speed**  
Unloaded 29 km/hr (18 mph)

### Overall Dimensions

Length 7.75 m (305 in)  
Width 4.20 m (165 in)  
Height (cabin raised) 2.15 m (85 in)  
Height (cabin lowered) 1.65 m (65 in)  
Wheelbase 3.80 m (150 in)  
Ground clearance (unloaded) 180 mm (7.1 in)

**Outside Turning Radius**  
(front wheel steering) 9.20 m (362.2 in)

**Fuel Capacity** 350 L (92 gal)

### Hydrostatic Drive

4-wheel drive; 3 closed loops each consisting of one variable displacement pump and one variable displacement motor, anti-spin device incorporated: PLC controlled.

### Steering System

Servo-hydraulic front axle power steering; emergency back-up system.

### Brake System

**Service Brake:** Hydraulically actuated 2 circuit brake acting on all 4 wheels; Front axle: drum brakes, Rear axle: disc brakes; Optimized brake force distribution (front axle/rear axle) for utmost driving stability; **Hydrostatic Brake:** Wear free braking on all wheels; **Parking Brake:** Spring loaded brake hydraulically released

**Airplane Retention Equipment** Sturdy modular construction with few moving parts; Hydraulically actuated by 4 cylinders, only: PLC controlled.

### Axles

Front: Spring suspended drive/steer axle  
Rear: Fixed mounted wheel hubs

### Tire and Rim Size

Tire	Front: 385/65-22.5	Rear: 17.5-25/24 PR
Rim	Front: 11.75-22.5	Rear: 14.00-25/1.5

### Electrical System

24 Volt; 2 batteries 12 V/165 Ah (each); Alternator: 120 Amps; GPU, power output up to 90 kVA (optional)

### Engine

Mercedes OM 502 LA, 425 kW (570 hp)

### Monitoring Devices

Standard Oversteer Alert Device (OAD)  
Warning lamps: park brake set, motor oil pressure low, cooling fluid temperature high, hydraulic oil temperature high  
Battery charging light

### Aircraft Range:

A300, A330, A340, B767, B777, B747

