

Fixed Base Tail Support Stanchion

TSS-705

Tail support Stanchion dampens aircraft movement during ground operations

Aviation GSE Model TSS-705 is for use on the Boeing 747 Freighter and Combi during cargo operations to dampen aircraft movement caused by changes in center of gravity and weight. Nose door sill movement is reduced 50-80%.

TSS-705 is a "Unipod" fixed-base type unit with a tripod support structure. The stanchion is rated at 15 tons and may be pre-loaded with the integral hand pump to any load up to 25,000 pounds. The stanchion load ram is a solid column that loads up to 25,000 pounds. When the load exceeds the limit, a pressure relief valve opens to a gradual retracting of the load ram. The ram will return to a solid column when the load reduces to approx. 22,500 pounds. This hydraulic dampening effect occurs slowly to restrain aircraft vertical movement.

As aircraft center of gravity shifts forward, or weight decreases, the stanchion ram extends with the aircraft until a compressive load is reapplied; thus acting to restrain the aircraft against tipping.

Head Stock Attached to Aircraft

TSS 705 includes a head stock that clamps to the 747 freighter/combi tail ball fitting. The head stock jaws are operated by an integral hydraulic cylinder for opening and closing the jaws around the ball fitting.

The head stock jaws travel over center to the closed and lock position to ensure a positive connection even in the event of a loss of hydraulic pressure in the jaw cylinder.

The stanchion cylinder assembly is supported by the tripod leg structure for towing and positioning. Once in operation, with the head stock engaged around the ball fitting, the stanchion footpad is lowered to the ground and aircraft load is transmitted through the stanchion to the single footpad.

Both stanchion models offered (TSS-705 and TSS-745) will meet or exceed Boeing recommendations.



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Specifications

Rated Capacity:	15 US Tons (13.6MT)
Low Height:	210 Inches (5,334 mm)
Hydraulic Lift:	70 Inches (1,778 mm)
Total Extended Height:	280 inches (7,112 mm)
External Relief Valve set point:	25,000 lbs. (11,360 kg)
Internal Relief Valve Set Point:	16.5 US Tons (14.9 MT)
Factory Proof Load test:	22.5 US Tons (20.4 MT)
Minimum Horizontal Displacement:	9 inch radius (228 mm) 18 inch diameter
Head Stock Relief Valve Pressure:	1,000 psig (70kg/cm)

Equipment Included

Head Stock:	Hydraulic Operated with integral hand pump (includes over center lock & 2 inch ball receptacle)
Unipod Foot Pad:	14 inch diameter with ball swivel and adjustable screw
Towbar:	3 inch lunette eye with auto parking brake
Ram Hand Pump Assembly:	3 position fulcrum for low-medium-high pressure
Load Gauge:	4.5 inch diameter dual scale dial (tons & PSIG)
Skydrol Resistant Paint	Standard Color: Yellow (other colors are available)

Additional Specifications

Tripod Leg Base Radius	64 inches (1,625mm)
Ladder and Platform Assembly	Furnished as standard equipment
Standard Running Gear	14 inch diameter wheels with swivel locks
Hydraulic Reservoir Capacity	8.75 gallons (33.1L)
Unit Net Weight (wet)	2,750 lbs (1,247 kg)
Options Available	-Foam-filled wheels for rough ground conditions -Air-operated hydraulic pump
Shipping Data	
Standard Skid, KD:	200”L x 40”W x 50”H, 3,000lbs.
Export Crate, KD	202”L x 45”W x 53”H, 3,500lbs.