

# NEOMETRIX

## About

### Hydraulic Refilling Trolley

The HYDRAULIC REFILLING TROLLEY is specially designed and developed for the GROUND REFILLING of oil in aircraft systems. It is used for refilling oil in aircraft system through the supplied pressurized hydraulic oil from the trolley to the aircraft, comprising of a pressurized reservoir, with filtered and de-aerated fluid at flow and pressure characteristics required for testing. The Trolley is suitable for wide range of fighter aircraft, military transport aircraft, and helicopters used in Indian Air Force.

This Hydraulic refilling trolley is basically designed for charging Engine oil (Turbonyc Oil-210, Viscosity- 3.7 cst at 100 Deg Celcius )to AIRCRAFT.

Compressed nitrogen is fed from air bottle (BL) along the flexible hose ,through shutoff valve reducers for building up pressure inside the tanks.

The safety valve releases compressed nitrogen into the atmosphere in case pressure exceeds set value. The working fluid displaced by nitrogen pressure from the tank passes through filters and used for cleaning the fluid of mechanical admixtures and gets through aircraft charging adaptor to the AIRCRAFT.

The bottle is charged with compressed nitrogen through inboard charging pipe.



## **Neometrix Defence Limited**

(Formerly known as Neometrix Engineering Pvt. Ltd.)

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# NEOMETRIX

## SPECIFICATION

GENERAL SPECIFICATION & EQUIPMENTS LIST	
<b>HYDRAULIC REFILLING TROLLEY</b>	
<b>Operation</b>	<b>Outdoor.</b>
Overall dimensions	(L)1600 X (W)1000 X (H)1150
Numbers of wheels	2Nos (Front ) & 2Nos (Rear)( Solid Rubber), 8''
Nitrogen cylinder	47 ltrs, 150 bar ( For Pressurization of Engine Oil Tank)
Fuel Tank Capacity	30 Liters. 1NOS
Towing speed	10Km/hrs.
Tow mechanism	Turn Table with tow handle mechanism.
Safety valve	For nitrogen line and for engine oil tank
Pressure Regulator	2 nos.
Gross Vehicle Weight (GVW)	385Kg. (Actual Measurement DATED 28/10/2023)



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<b>MAIN HYDRAULIC SYSTEM</b>	
Working Media	Engine Oil : Turbonyc oil -210, Viscosity:3.7 cst at 100 deg C
No. Of oil Supply Hose	1 set of 10m size: ½”Hydraulic Hose with Oil charging Adaptor
Charging Flow rate	1.5 LPM
Operating Pressure for Refilling	3.5 +/- 0.3BAR.
Temperature range	-5 to 120°C.
Filtration level	3µ. of High Pressure Filter.
Vacuum Level (Working range)	200mBar (abs).
Compressed Air Pressure (Working range)	4 Bar (Max).
Level Indicator	To see engine oil level in Tank
Pressure Gauges	To see nitrogen cylinder and engine oil tankpressure
Needle Valves	For controlling of flow
Hydraulic Reservoir	Stainless Steel-SS304L, 3 , with std accessories
Hose Reel drum	For coiling of hose



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## Key Features

1. Engine Oil Refilling in Aircrafts.
2. Design to SU-30 MKI for Oil Refilling.
3. Less handling and easy to operate.
4. Design as per Airforce Norms.



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## Applications

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