



+INTER-OFFICE MEMORANDUM

Date: November 23, 1999
From: Stephen Vasquez

**Subject: JUSTIFICATION TO PURCHASE
25 GALLON OIL DISPENSER SERVICE UNITS**

Aircraft Line Maintenance requests authorization to spend \$20,300 for a pressure refilling 25 gallon service dispenser to be mounted on four future Tesco 5020 lift trucks. These service dispensers are needed to reduce our present cost of using jet oil in quart cans when servicing our fleet of transit aircraft with Mobil 254 jet oil.

SCOPE/NEED

Aircraft Line Maintenance needs to replace their present jet engine oil service units for the following reasons:

1. Reduce the cost of servicing our fleet of aircraft with Mobil 254 jet oil:

\$8.48	Cost for one quart of Mobil 254 oil (Ref Maxi-Merlin, CPN: 21850, MSSD)
\$1,997.60	Cost for 220 quart cans of Mobil 254
- <u>\$1,350.00</u>	The cost for a 55 gallon barrel of Mobil 254 is (CPN: 22032, MSSD)
\$647.60	Cost difference to use 220 quart cans vs. one 55 gallon barrel

3,876	Monthly average of Mobil 254 quart cans delivered to Memphis Line Maintenance for past 10 months
\$11,407	Cost difference <u>each month</u> using quart cans vs. 55 gallon barrels $3,876 \div 220$ [qt can in 55 gal] x \$647.60 [cost difference between 220 cans & barrel]
\$5,075	Cost for one 25 gallon service bowser
2.25	Number of 25 gallon service bowsers Line Maintenance could have purchased each month when using Mobil 254 in quart cans

2. Cost from unused oil left in quart cans vs. using 55 gallon barrels

0.9 oz.	Amount of unused (residue) oil left inside a quart can
109	Quarts of unused oil from 3,876 quart cans, each month (.9 x 3,876 ÷ 32 oz)
33 oz	Unused oil from one 55 gallon barrel
\$835.36	Cost for unused oil each month when using quart cans 109 – 17 (unused oil in barrel) x \$9.08
2.4	Number of service bowsers Line Maintenance could purchase each month from the difference in using oil in quart cans vs. 55 gallon barrels $\$11,407 + \$835.36 \div \$5,075$

Return on Investment: 2.8 months for 4 service bowsers

Stephen Vasquez
Sr. Line Support Analyst
Aircraft Line Mx
Phone: 817-606-4265
Fax: 817-606-4267



FluidTran's 25 GALLON DISPENSER

Subject: Justification for purchase of 25-gallon dispenser

Everyone knows servicing an engine's oil reservoir is to be accomplished within 30 minutes after engine shut down. If a jet engine is serviced after 30 minutes, oil could flow from the reservoir to the gearbox and give a lower than actual oil level. Using a quart can or one quart oil dispenser would produce the same situation and possible over service.

A. What you get when using quart cans:

1. Metal particles falling into reservoir when a mechanic opens a quart can with a can opener or screw driver.
2. Water and debris collecting on the tops of oil cans either while in storage or when an open case of oil is sitting on the bed of a lift truck.
3. User spilling oil inside engine cowl but fails to clean all the oil. Giving an oil leak indication at next station or when plane is sitting on ramp.
4. Not getting a full 32 oz. of oil into an engine reservoir.

B. Using FluidTran's 25 gallon dispenser:

1. No metal shavings. 25 gallon dispenser's reservoir is pressure filled from a 55 gallon barrel or 350 gallon tote. Its service hose has a quick disconnect to service high tail engines on DC-10s and MD-11. The dust cap to this disconnect is the same type fitting the DC-10 uses. It has another 3 feet of hose that has an oil gun dispenser, with dust cap, to service wing engines and all 727 engines.
2. Having a closed system to pressure refill the 55 gallon barrel dispenser helps keep moisture out and ramp debris from entering. A dust cap is used at the dispensing nozzle and is attached with a small chain.
3. Service hose's dispenser is an air nozzle type device so user has complete control of direction and amount of oil being discharged into the engine's reservoir fill cap.
4. 25 gallon dispenser uses a flow meter that measures in 10th of a quart and can be reset so user knows the exact amount of oil that goes into each engine.
5. Both dispenser and 55 gallon barrel use a 1 quart, 10 micron filter to prevent any particles from being dispensed into an engine's reservoir.
6. Both dispenser and 55 gallon barrel use a moisture trap filter that prevents outside moisture or debris from entering the barrel or dispenser's reservoir when oil is being pumped out.

I hope this information will help in justifying the purchase of this dispenser and show how easy it is for anyone to refill it and service any of our planes with BP 2197.

Thank you,

Stephen Vasquez