

Introduction

The equipment consists of a KYOTO Containment Mat 12’ wide x 35’ long with 4” diameter inflatable sides (berms) manufactured from a polyurethane material which is resistant to a wide range of chemicals including Skydrol.

A 12V DC motorised hose reel is provided to conveniently store and dispense the mat and the reel is mounted on an 87 gallon stainless steel tank which in turn is fitted on a rigid steel chassis. The chassis is supported by three heavy duty wheels with 16” super elastic tyres, one of which is mounted on a heavy duty steering castor wheel. A drawbar, which can be locked in the upright position for storage and safety, is attached to the steering castor unit. A drawbar operated parking brake acts on the front wheel when the drawbar is locked in the upright position.

A vacuum unit which has a 36V vacuum motor head is powered by three 12V batteries. The batteries are stored in plastic containers which are mounted on top of the tank underneath the reel. An automatic charger is supplied with the rig to connect the batteries with an external power supply of 220V AC when the batteries require a recharge.

A system for inflating the sides (berms) of the mat is conveniently mounted on the front of the trolley consisting of a re-chargeable nitrogen cylinder, a pre-set HP regulator, on/off ball valve and a 15’ hose with Schrader connector.

A vacuum floor tool for collecting the waste water from the mat is stored on top of the tank. The vacuum floor tool connects to the vacuum unit via a flexible hose and when switched on sucks the waste water from the containment mat into the 87 gallon tank. A ¾” BSP drain ball valve is fitted on the back of the tank to empty the waste material into the designated collection tank/area where filtration is available.

Operation

Ensure the on/off inflation valve is in the off position (across the direction of flow), and turn on the nitrogen cylinder. Check the cylinder has sufficient capacity. That is, minimum capacity 200psig as shown on the right hand gauge. If the cylinder needs charging, refer to charging procedure.

Position the trolley approximately 20’ away from the exhaust of the engine being washed and at right angles to the engine. Apply the brake by locking the tow bar in the upright position. Unwind the mat from the top of the hose reel toward the rear of the engine and detach the three velcro straps from the hose reel (a minimum of two persons required, one on each side of the mat). When fully extended, open the mat out to its full width.

Re-position the trolley at a safe distance to one side of the engine exhaust. Uncoil the inflation hose and attach the hose end fitting to the inflation valve on the mat ensuring that the valve on the fitting is fully attached. Open nitrogen inlet valve to inflate the sides of the mat. When the sides are fully inflated the safety valve on the mat blows off. Close the valve, disconnect the hose fitting and re-stow on the rig.

When the engine preparation has been completed, re-position the mat centrally under the engine to ensure all waste water will be collected. The mat is normally positioned with the leading edge 3-4 feet back from the front of the engine cowl.

After the wash

Switch on the vacuum unit ensuring all three switches are in the ‘on’ position and use the vacuum floor tool to suck up the liquid from inside the collection mat. Once all the waste water has been vacuumed into the tank unscrew the protective cap on the large inflation valve which is positioned adjacent to the valve used to inflate the sides (berms) and use the supplied squeegee to help force the air along the berms towards the valve. Fold in the sides and move the trolley to the original position. Connect the velcro straps to the reel and rewind over (not under) the reel using the push button on the control panel to operate and control the speed.

Trolley Size: (L) 3780mm x (W) 1020mm x (H) 1766mm Weight: (Dry) 668Kg

Dimensions of Kyoto mat: (L) 10668mm (35’) x (W) 3658mm (12’) x (Berm height) 102mm (4’)

Packing crate dimensions: (L) 3759mm x (W) 1118mm x (H) 1855mm

Rig variations

JMP/KYOTO/D/6777 (First operational prototype - December 2009)



Contractors to
H.M.Government Departments
Approved to BS EN ISO 9001:2008

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DESCRIPTION

THE JUNIPER
TRAILER MOUNTED
KYOTO CONTAINMENT MAT
JMP/KYOTO/D/6777/C200
(NSN 4235-99-464-5834)

DETAILS



Used in conjunction with our compressor washing rigs, the new Kyoto containment trolley provides the ideal solution to your engine washing and waste water collection problems



1

Juniper's 2x25 gallon wash rig (JMP/CFM56/D/4777/C200) in the livery of TAM Linhas Aereas being used with the new Kyoto Containment Mat to wash the V2500 engine fitted to an Airbus A320 at the Jardim Aeroporto, San Paulo, Brazil in February 2010

2

The Kyoto trailer being wheeled into position for a successful demonstration wash on the GE90 engine fitted to a Boeing 777-200 aircraft for British Airways at Gatwick Airport in June 2010

3

The results of the GE90 wash for British Airways successfully caught by Juniper's new collection system.

4

Collecting the waste water at the completion of TAM's engine wash. The two rubber squeegee blades on the vacuum nozzle are adjustable (pics 5,6 & 7). In operation we have found that having the blades level with the wheels at either end of the vacuum head (pic 7) is the most efficient position for water collection.



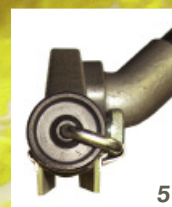
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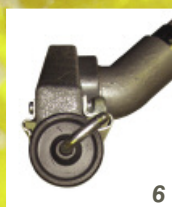
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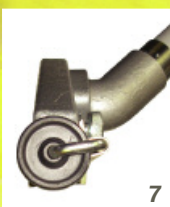
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5



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7



8

The new mat doing its job during British Airway's GE90 engine wash at Gatwick Airport



9



10

The Kyoto Containment Mat in position during a recent engine wash for Aegean Airlines on a V2500 engine fitted to one of their Airbus A320 aircraft. The flexible vacuum hose is connected and ready for use.

10

The mat is wound back onto its reel after the successful engine wash for TAM Linhas Aereas in Brazil.

Our new self contained Trailer Mounted Kyoto Containment Mat (JMP/KYOTO/D/6777/C200) is now available and features a high-powered vacuum unit discharging into an 87 gallon onboard storage tank powered by a 36V battery giving over 3 hours continuous operation before recharging is required. The unit is supplied complete with a detachable, fully adjustable vacuum collection nozzle with robust flexible hose, battery charger, rubber squeegee, weights for anchoring the mat, and a repair kit in case of punctures or tears to the mat.

Embodying all the traditional Juniper virtues of rugged build quality, ease of use and unrivalled back-up and expertise, the Trailer Mounted Kyoto Containment Mat might just be what you need for your next engine wash.

Features and benefits include:

- Totally self contained
- Stowable polyurethane containment mat measuring 35' x 12' stored on a powered reel
- Integral 87 gallon stainless steel storage tank
- Powerful vacuum unit with flexible hose and nozzle assembly
- 36V battery giving up to 3 hours continuous operation
- Battery charger supplied
- Towable, compact and manoeuvrable
- Portable weights for anchoring mat in windy conditions