

## Universal Fuselage Lifting Systems

### Category 3



*NATO Suppliers Code for Manufacturing  
Aircraft Recovery Equipment  
NSCM U7972*



# AMS Aircraft Recovery Systems



## Enter Into Service (EIS) – The immediate solution

Although major incidents such as main landing gear failures can occur, they are very rare. Nose gear failures, although considered minor are comparatively frequent events. This recovery scenario could still have a catastrophic effect on aircraft operations if the airports runways are closed.

AMS Systems Engineering currently offer a lightweight, easy to use Modular Lifting Beam System that is ideally suited for the many varied nose landing gear recovery scenarios associated with narrow bodied and wide bodied disabled aircraft.

The Systems are divided into three categories, the largest; **Category 3** being able to lift 26 of today's most commonly used commercial airlines, including the Airbus A380.

Since the Categories are modular, AMS can provide additional parts for newer aircraft as & when they come into service.

## General System Specification and benefit

- Beam Sections have a safety factor of 5:1
- All Slings have a safety factor of 7:1
- All Lifting Components have test certificates
- Systems are CE marked.
- Systems are designed to lift the aircraft in accordance with the aircraft recovery manuals & IATA recommendations
- Air Container transportable.
- Lowest operating height of any comparable system on the Market.

The fuselage lifting system is designed to meet the requirements of both Airbus & Boeings Aircraft Recovery Manuals.


Three of the worlds leading airlines have already purchased the AMS **CAT 3** in readiness for the A380.




## System versatility

The combination of components provided in the AMS **CAT 3** systems permit the following aircraft to be lifted safely in accordance with the Aircraft Recovery Manual (ARM).

### Category 3

 **AIRBUS** A318, A319, A320, A321, A300, A300/600, A310, A330, A340 – 200/300, A340 – 500/600 & A380

 **BOEING** B707, B727, B737 range, B757, B767, B747, B777, MD11, MD80, MD90, DC8, DC9 & DC10

**Span** - 1m to 7.2m in 0.5m increments. **Max Load** – 50 tonnes at 7.2m span. **System Weight** - < 2600kg

**Note:** The System can be added to at a later date to accommodate the Airbus A350 & Boeing B787

## System Assembly

Assembling the A380 configuration will take two persons approximately 2 hours. Changing from A340 to A380 configuration takes approximately 20 minutes. Heaviest component being 136kg.

## A380 Fuselage Sling

The frame pitch of the A380 is unique to this aircraft; therefore an “A380 specific” sling has been developed. During the lifting process the pitching of the slings is physically maintained by rigid cross bracing. Maintaining the correct pitch is critical, as any movement from the frame centreline while lifting could damage the aircraft fuselage structure, resulting in secondary damage.



***View of A380 fuselage sling - Length 21m - 8 slings pitched to suit A380 frames***

The “Fixed Pitch Sling” is unique to AMS. The **CAT 3** system comes with additional slings enabling its use with other aircraft listed above.

# AMS Aircraft Recovery Systems



## Shipping/Cargo Storage

The CAT 3 fuselage Lifting System has been designed to fit standard aircraft containers & pallets. All metal items are stowed in four separate stillages. With the following sizes and weights.

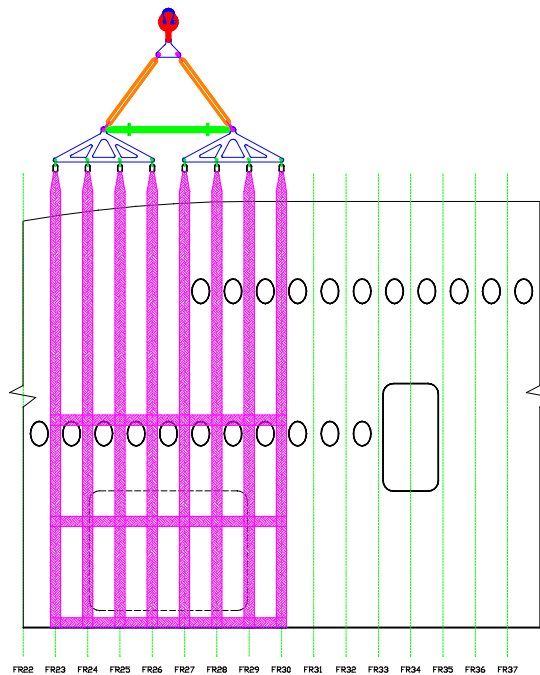
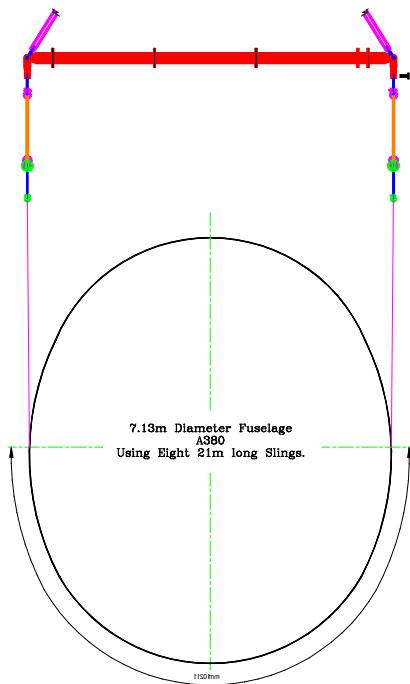
Stillage 1	230 x 125 x 34 high	420kg	Stillage 3	230 x 125 x 70 high	730kg
Stillage 2	230 x 125 x 48 high	520kg	Stillage 4	230 x 125 x 48 high	805kg
Sling Container	280 x 130 x 100 high				



**Additional Sling Box, containing A380 sling. Size 260 x 115 x 50 high.**



**Cat 3 Fuselage Lifting System stowed in stillages. Total storage height when stacked 230 x 125 x 200 high.**



**Side view of Fuselage sling in position on Airbus A380 (drawn to scale)**

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## Delivery

AMS have been working in association with British Airways who are an IATP pool kit provider. AMS have manufactured the first A380 Fuselage Lifting System & De bogging kits. Delivery to British Airways will be in time for the arrival of the first A380 into Heathrow Airport.

For further details and specifications for either the CAT 3 Fuselage Lifting System or the A380/New Large Aircraft hauling kits please contact AMS Systems Engineering Ltd at –

## Fit & Function testing.



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