

AIRCRAFT ARRESTER BARRIER SYSTEM

INTRODUCTION

The Aircraft Arrester Barrier system (AABS) is intended for emergency application to arrest the aircraft. The AABS is located on the ends of the runway. These AABS are either net type or pendant type. In net type whole aircraft is enveloped by Net and in pendant type aircraft hook is engaged with pendant (metallic wire rope).

Arrester Barrier system is available in two variants:

- For 6 to 20 ton class aircraft.
- For 20 to 40 ton class aircraft.

A BRIEF DESCRIPTION OF AABS

Stanchion system

The role is to raise and lower the Net Assembly. It can be operated from relay hut (runway site) through main control panel (MCP) as well as from ATC through Remote control panel (RCP). In case of power failure it also can be operated manually at runway site.

A rear limit switch is mounted on the base frame such that it limits the movement of the stanchion frame beyond a specific position by cutting off the power supply to the geared brake motor.

The Nitrogen filled Shock Absorber is provided for smooth lowering of the stanchion. The leaf spring assembly and rubber shock pads are provided to ensure that Top mount assembly does not touch the ground.

Energy Absorber

There is a purchase tape wound on the tape drum of Energy Absorber and one end of purchase tape is connected to the net. When aircraft is arrested the purchase tape unwinds and tape drum rotates. It generally absorbs the Kinetic Energy of the aircraft.

Sheave Assembly

It guides the purchase tape during arrestment or retrieval and thus reduces the wear and tear of tape.

Tape Retrieval System

It is used to rewind the purchase tape electrically on tape drum.

PURPOSE SCOPE OF WORK

The AABS are re-installed either due to re-location of AABS or re-surfacing of the runway.

The work involved is as under;

1. Dismantling and removal of AABS equipments.
2. Dismantling of AABS foundations.
3. Supply and grouting of new Foundation J-Bolts and Net Anchor bolts.
4. Construction of new foundation for Energy Absorber, stanchion and Suspension anchor block.
5. Provision for fair lead tube.
6. Paving around foundation
7. Fabrication of Energy absorber shed.
8. Supply and laying of electrical cables.
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10. Installation and Integration of equipments.

APPLICATIONS

1. Aircraft Arrestor Barrier System is a perfect blend of experience and technology to prevent Air Force flying losses.
2. AABS offers safe and reliable arresting solutions for combat aircrafts during landing and take-off overrun.

KEY FEATURES

- Ease of Operation.
 - User Friendliness
 - Safety
 - Operator intervention is very minimal and limited to adjustments.
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- Ease of Maintenance
 - Automatic & Manual Mode of Operation.
 - Operated from site, ATC and manually.