FAA APPROVED

ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

Onboard Systems
External Load Suspension System
With 3.5KK Cargo Hook

MBB Helicopter Model
BO-105S

R/N _____ S/N _____

FAA Approved: _____
for Manager, Seattle Aircraft Certification Office

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INTRODUCTION

This supplement must be attached to the appropriate MBB FAA approved Rotorcraft Flight Manual when an Onboard Systems 200-290-00 or 200-291-00 Cargo Hook Suspension System is installed in accordance with Supplemental Type Certificate (STC) NO. SR00808SE. The information contained herein supplements or supersedes the basic manual only in those areas listed herein. For limitations, procedures and performance information not contained in this supplement, consult the basic Rotorcraft Flight Manual.

The P/N 200-290-00 & P/N 200-291-00 Cargo Hook Suspension Systems replace the cargo hook, an adapter link assembly, the lower manual release cable and an electrical release wire harness on the MBB supplied cable type suspension system and cargo hook kit. The P/N 200-291-00 system is the same as the 200-290-00 except it includes a load weigh system.

I. LIMITATIONS

I.1 Airspeed Limits

Consult the MBB Rotorcraft Flight Manual Supplement, Cargo Hook for airspeed limits when an external load is attached.

Maximum operational air speed with external loads is dependent upon the load configuration and sling length. It is the responsibility of the operator to establish the maximum operational speed for each specific configuration.

I.2 Type of Operation

The basic Flight Manual remains applicable. With a load attached to the cargo hook, operation shall be conducted in accordance with the respective national operational requirements. For U.S. operators FAR Part 133 is applicable. This cargo hook is approved for non-human cargo, class B and C rotorcraft load combinations only.

I.3 Weight and CG

Consult the MBB Rotorcraft Flight Manual Supplement, Cargo Hook for longitudinal cg limits when an external load is attached.

I.4 Cargo Hook Load

The Cargo Hook Suspension System is rated for 2,205 lbs. (1000 kgs.).

Consult the MBB Rotorcraft Flight Manual Supplement for external load limitations.

I.5 Placards

The basic Flight Manual remains applicable. When an Onboard Systems 200-291-00 Cargo Hook Suspension System with Load Weigh is installed, the following placards apply:

- Mounted adjacent to the Onboard Systems digital/analog indicator in full view of the pilot and copilot.

TURN THE WEIGHING SYSTEM OFF WHEN NAVIGATION EQUIPMENT IS IN USE. NO AIRCRAFT OPERATION SHOULD BE PREDICATED ON THE READING OF THE ONBOARD WEIGHING SYSTEM

- Mounted adjacent to both the power switch and the circuit breaker in full view of the pilot and co-pilot.

ELECTRONIC WEIGHING SYSTEM

II. PERFORMANCE

The basic Flight Manual and Rotorcraft Flight Manual Supplement-Cargo Hook issued by MBB remains applicable. When an Onboard Systems 200-291-00 Cargo Hook Suspension System with Load Weigh is installed the following applies:

The Load Weigh System is designed and installed as a means of MONITORING the load (weight) suspended from the cargo hook. Functional and performance characteristics have not been determined on the basis of the load cell indication or display. Therefore, this instrument shall NOT be used as a primary indication of performance and flight operation must NOT be predicated on its use.

III. NORMAL PROCEDURES

III.1 Daily or Pre-Flight Check

Before each cargo hook use perform the following procedures. If the procedures are not successful do not use the equipment until the problem has been corrected.

III.1.1 Exterior Check

1. Inspect all mounting fasteners to ensure that they are tight.
2. Inspect the electrical connector for damage.
3. Inspect the hook and suspension for cracks and damage.
4. Inspect the hook load beam for gouges and cracks.
5. Inspect the suspension cables for damage and fraying.
6. Swing the hook and the suspension assembly to their full extremes to verify that they do not reach the limit of the mechanical release cable range of motion, which can cause the mechanical release mechanism to actuate.

III. NORMAL PROCEDURES continued

III.1.2 Interior Check

1. Cycle the manual release mechanism to ensure proper operation. Pulling manual the release handle will cause hook to open. Hook may be returned to the locked position by manually pushing up on the load beam. The hook should snap shut. The hook may be flown in the open position to facilitate loading by a ground crew.

2. Cycle the electrical release mechanism to ensure proper operation. Pressing CARGO RELEASE switch on cyclic will cause hook to open. Hook may be returned to the locked position by manually pushing up on the load beam. The hook should snap shut. The hook may be flown in the open position to facilitate loading by a ground crew.

3. Power on the hook Load Indicator and allow it to warm up for 5 minutes (with no load on the hook). Press both Indicator buttons at the same time to go to the setup mode. Scroll through the menu until the symbol “0 in” is displayed, then press the right button. Remove any weight that is not to be zeroed out and press either button to complete the procedure.

III. NORMAL PROCEDURES, continued

III.2 Cargo Hook Rigging

Extreme care must be exercised in rigging a load to the Cargo Hook. The following illustration shows the recommended rigging configuration.

CAUTION: The example shown is not intended to represent all possibilities. It is the responsibility of the operator to assure the hook will function properly with the rigging. Some combinations of small primary rings and large secondary rings could cause fouling during release.

Nylon Type Straps or Rope

CAUTION: Nylon type straps (or similar material) or rope must not be used directly on the cargo hook load beam. If nylon straps or rope must be used they should be first attached to a steel primary ring. Verify that the ring will freely slide off the load beam when it is opened. Only the primary ring should be in contact with the cargo hook load beam. See figure 1.

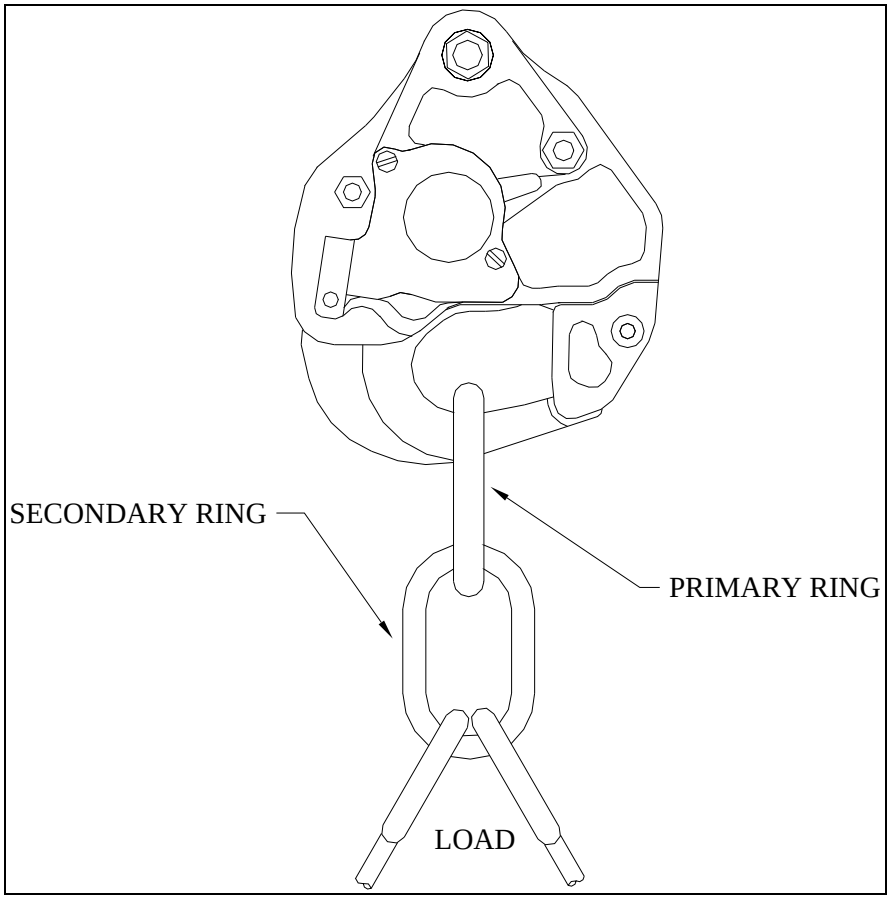

Figure 1. Example of Recommended Cargo Hook Rigging.

III. NORMAL PROCEDURES continued

III.3 In Flight

Consult the MBB Rotorcraft Flight Manual Supplement for the Cargo Hook Suspension System for normal in flight procedures.

Note: The hook advisory light is no longer functional with this Cargo Hook Kit.

IV. EMERGENCY PROCEDURES

IV.1 Cargo Hook Fails to Release Electrically.

Consult the MBB Rotorcraft Flight Manual Supplement for emergency procedures when the cargo hook fails to release electrically.

V. PERFORMANCE

The basic Flight Manual and Cargo Hook System Rotorcraft Flight Manual Supplement issued by MBB remain applicable when there is no external load attached.

When there is an external load, performance will be reduced depending on its size, weight, and shape.

The Load Weigh System is designed and installed as a means of MONITORING the load (weight) suspended from the cargo hook. Functional and performance characteristics have not been determined on the basis of load cell indication or display. Therefore, this instrument shall NOT be used as a primary indication of performance and flight operation must NOT be predicated on its use.