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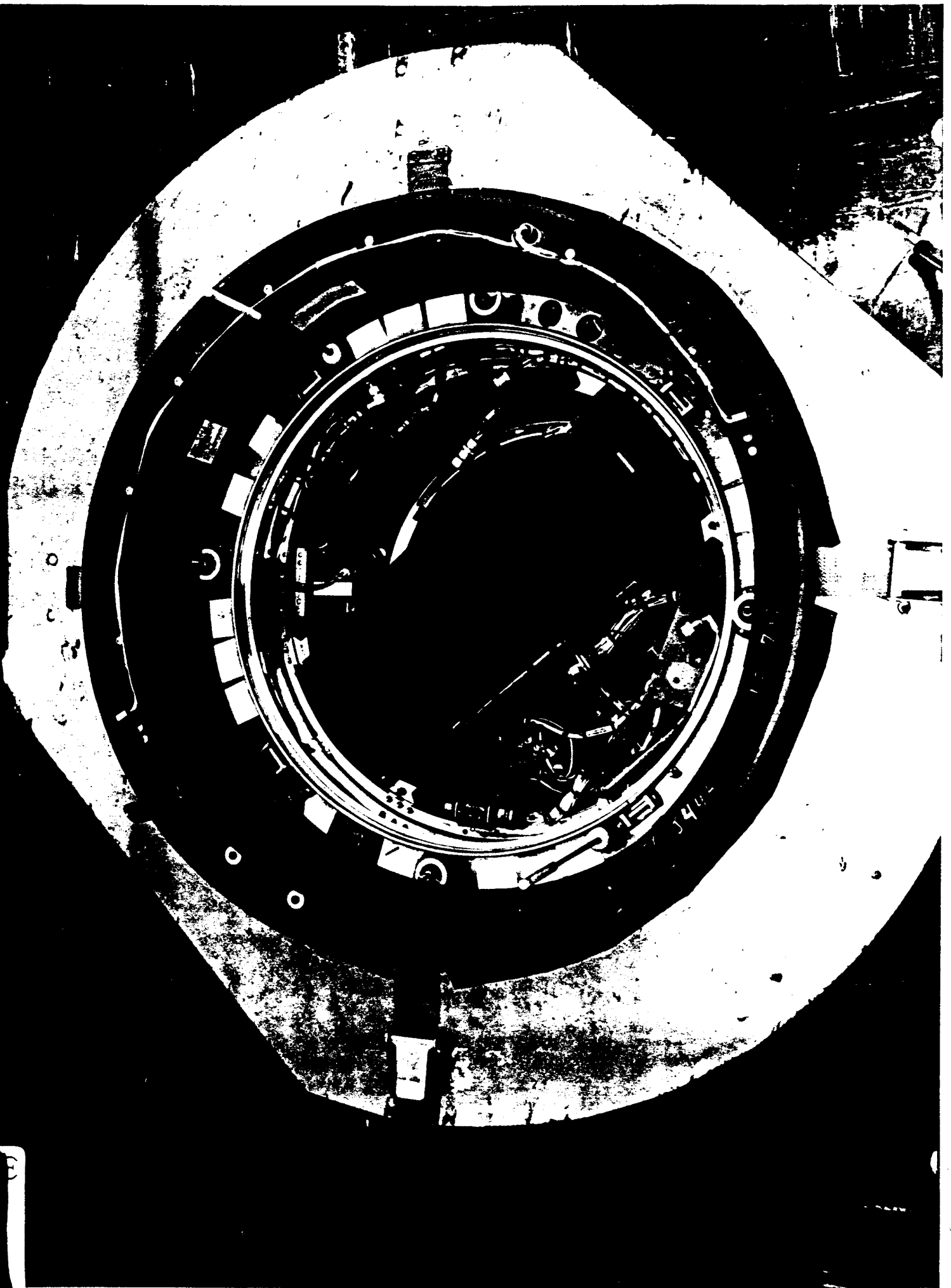
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J-1

Declassified and Released by the NRO

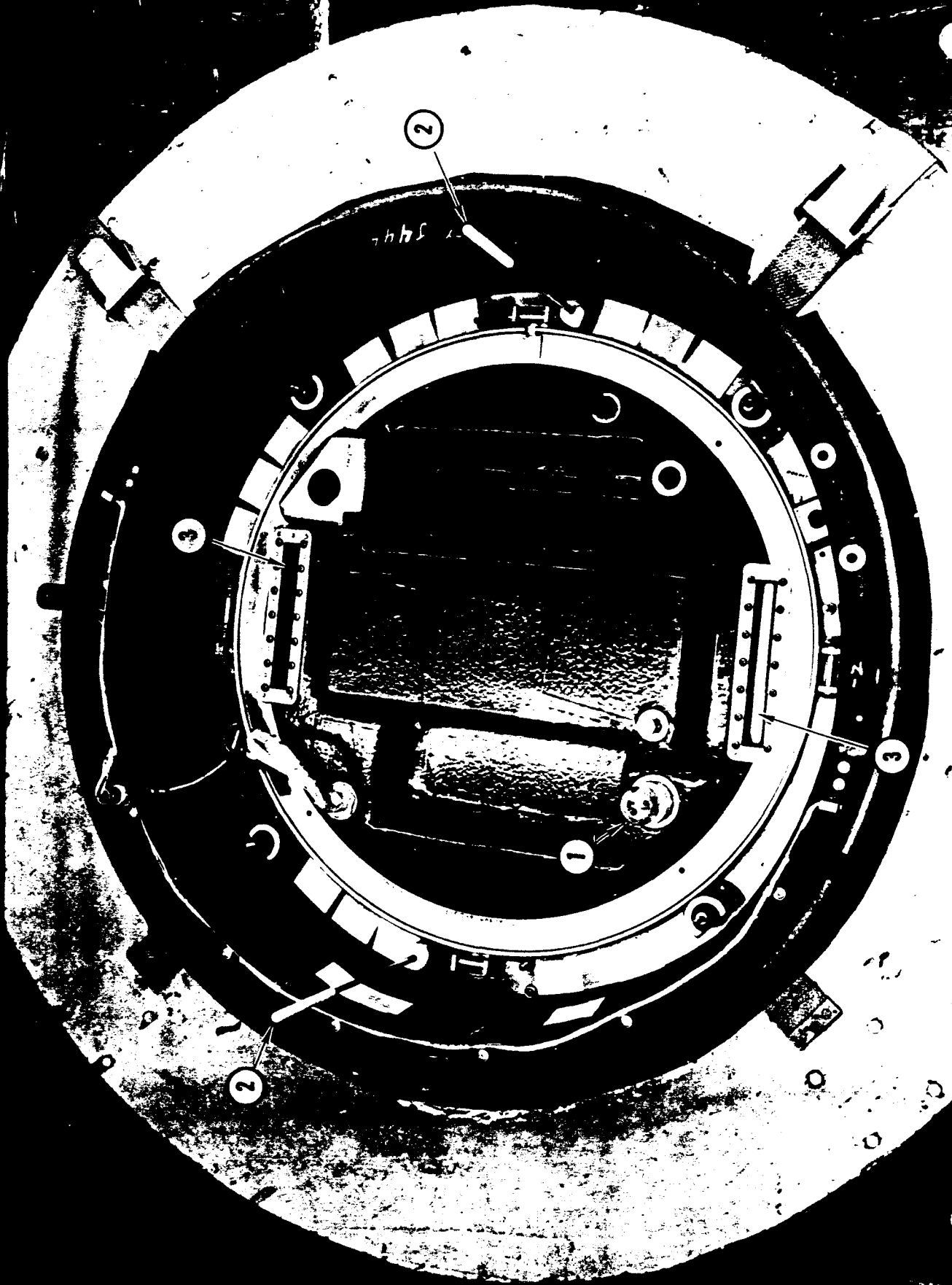
In Accordance with E. O. 12958

on NOV 26 1997



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**TAKEUP CASSETTE AND ASSOCIATED HARDWARE IN J-1
SYSTEM RECOVERY VEHICLE**



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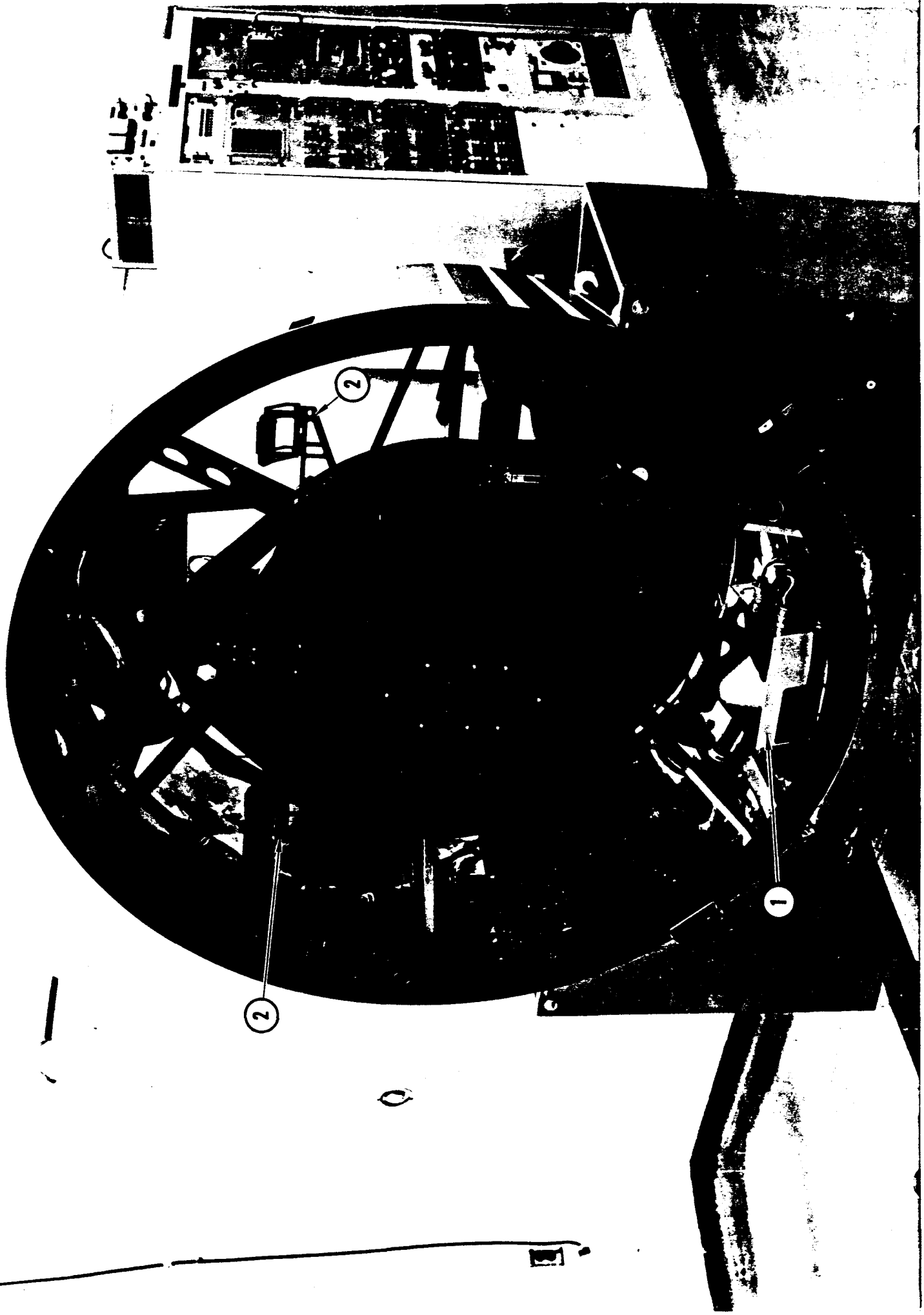
RECOVERY BARREL (ON DOLLY) REQUIRED FOR J-1 SYSTEM

NOTE: 1 STELLAR INDEX CAMERA MOUNT

2 PRESSURE MAKEUP UNIT

3 TESTING CONSOLE IN BACKGROUND

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J-1 SYSTEM SRV CAPSULE COVER AND PARACHUTE WELL

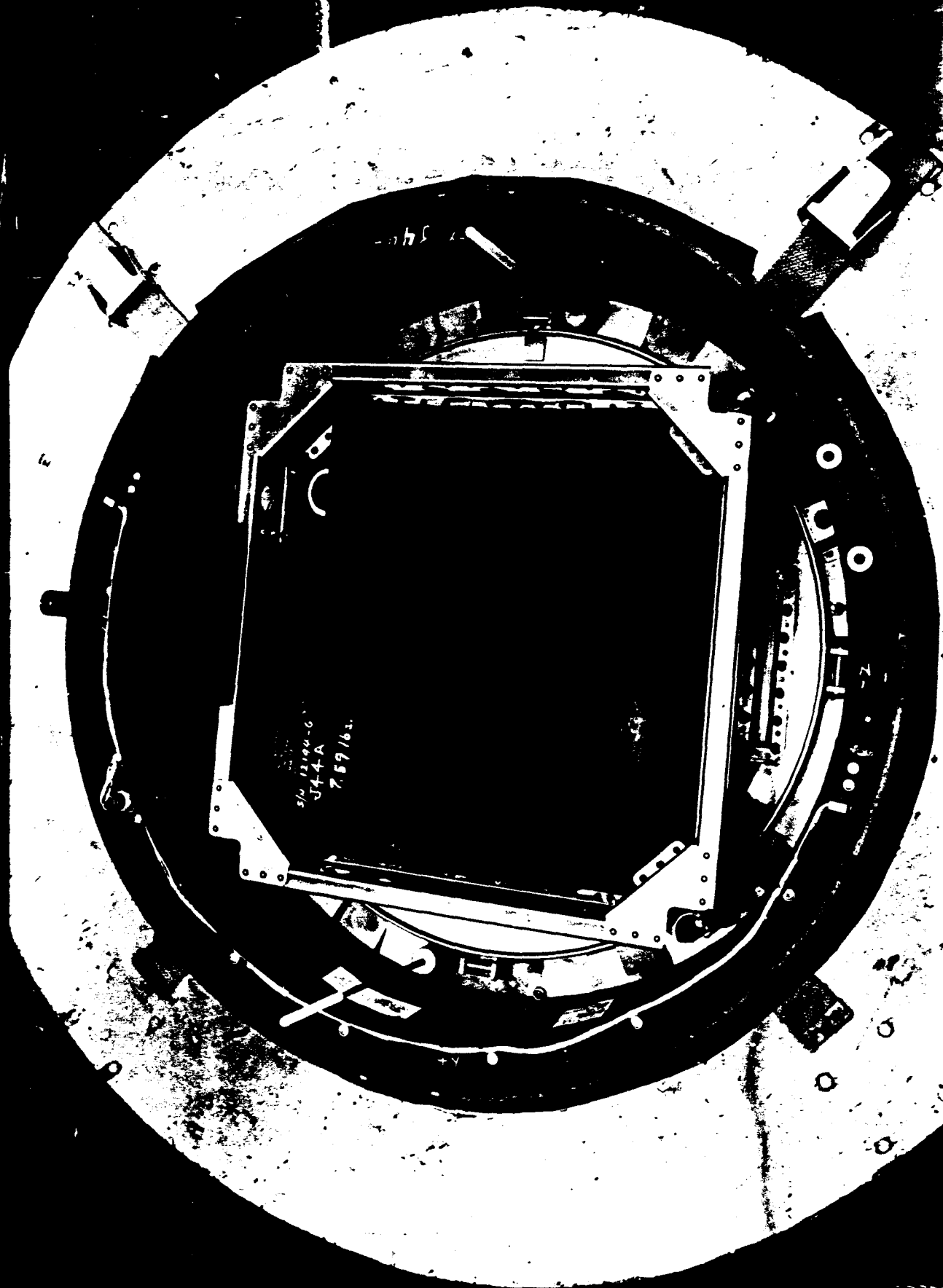
NOTE: 1 SIGNAL LIGHT

2 BEACON ANTENNAE

3 WATERSEAL ASSEMBLIES FOR FILM INTAKE

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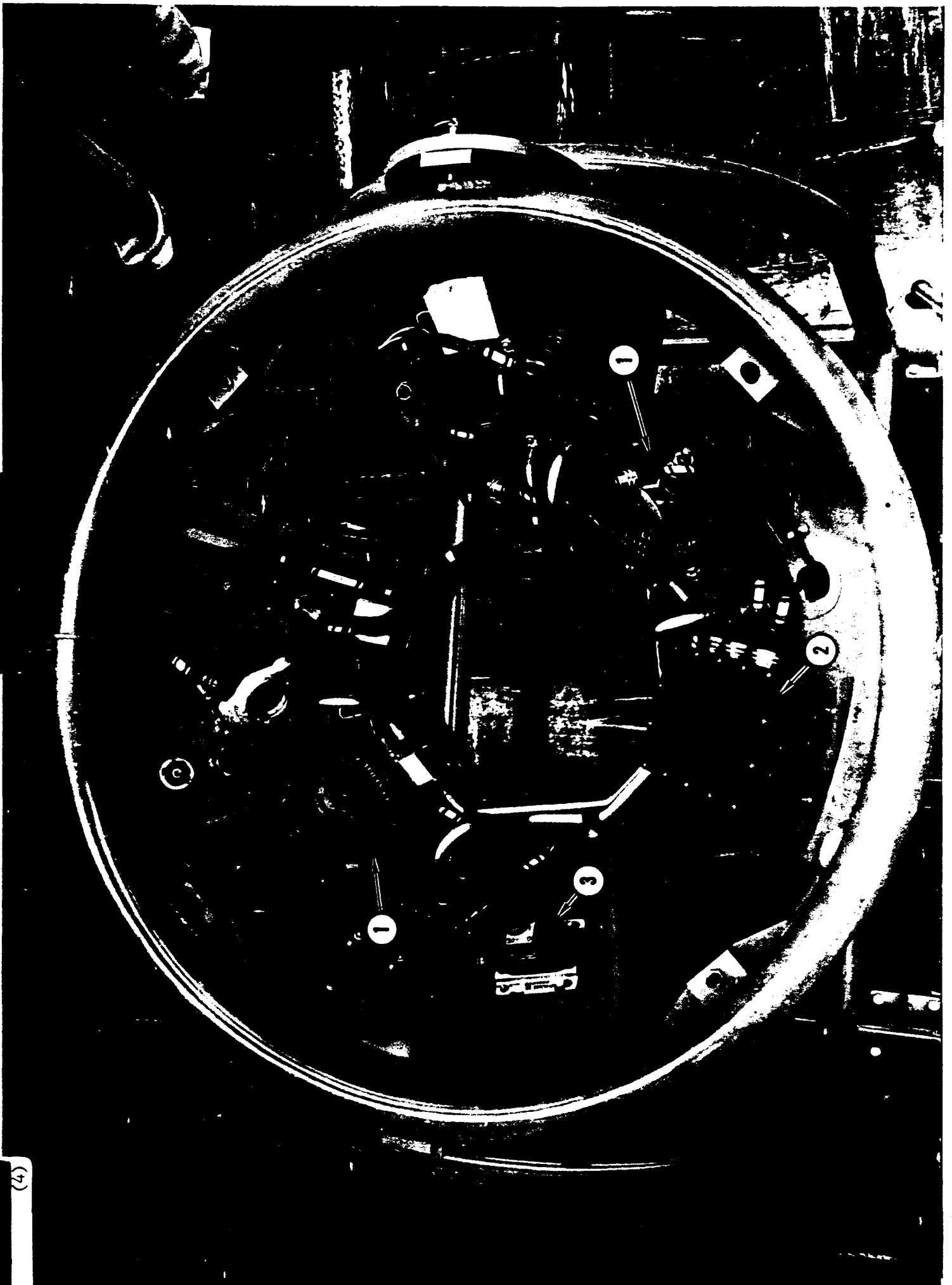


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**PARACHUTE THERMAL COVERING FOR J-1 SYSTEM
RECOVERY VEHICLE**

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INTERIOR VIEW OF J-1 SYSTEM THRUST CONE ASSEMBLY

NOTE: 1 SPIN AND DESPIN COLD GAS BOTTLES

2 THRUST CONE PROGRAMMER

3 3-GSWITCH FOR CONTROLLING RECOVERY SEQUENCE

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TOP SECRET



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ONE PANORAMIC RECIPROCATING CAMERA MOUNTED IN J-1
SYSTEM INSTRUMENT BARREL. THIS SIDE OF THE CAMERA
INTERFACES WITH THE OTHER INSTRUMENT BARREL

NOTE: 1 BELTS OF MECHANICAL DRIVE SYSTEM

2 1 ω BALANCE WHEEL WHICH COMPENSATES FOR SCAN
ARM RECIPROCATATION

3 INPUT METERING ROLLER

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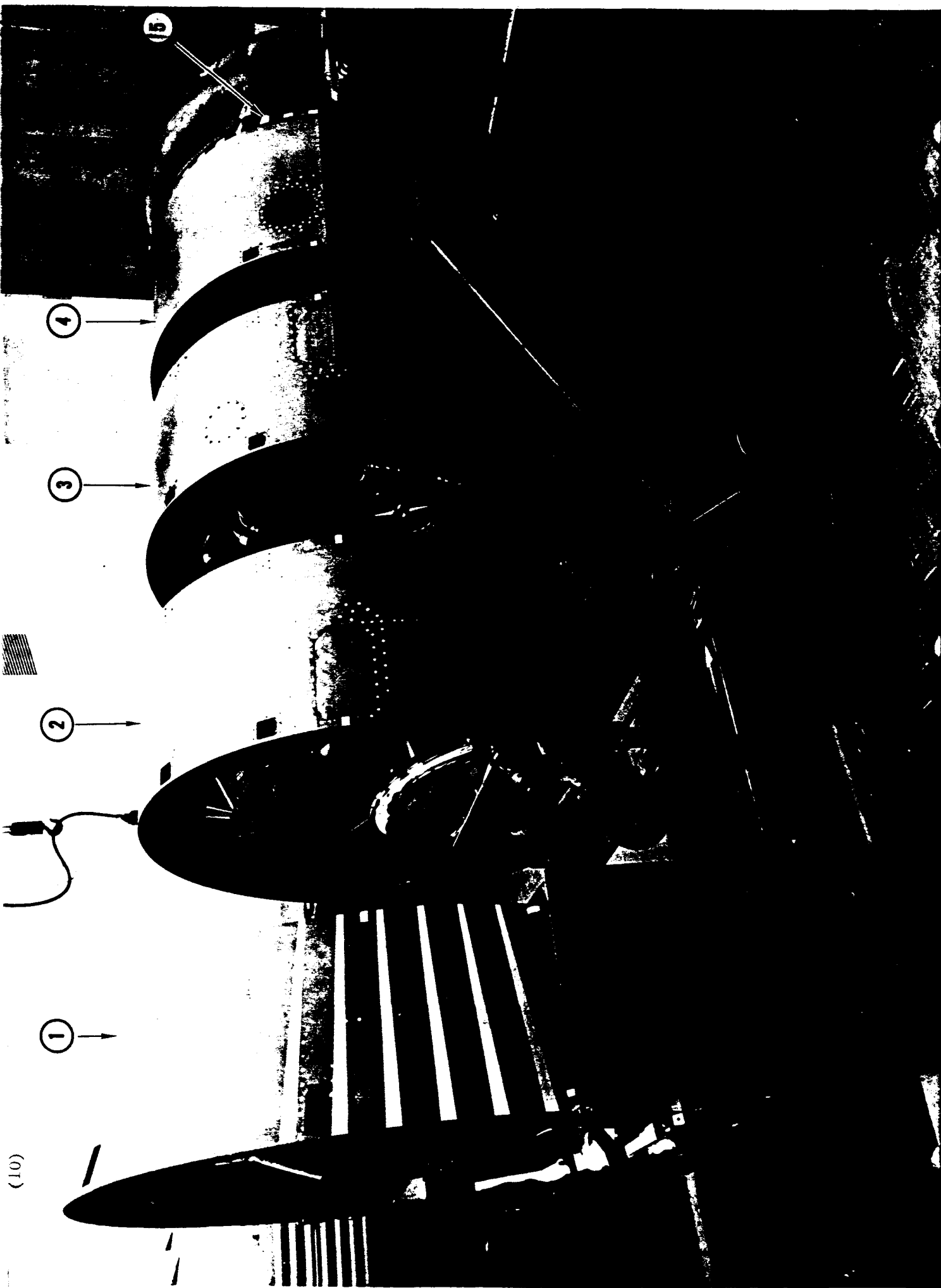
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REAR VIEW OF J-1 SYSTEM CONIC WITH SUPPLY CASSETTE
ON DOLLY. THIS ADAPTOR CONIC SECTION COUPLES THE
50-INCH DIAMETER J-1 INSTRUMENT BARREL WITH THE
60-INCH DIAMETER AGENA VEHICLE

NOTE: 1 SYSTEM CLOCK

2 DERRICK ARMS

~~TOP SECRET/C~~



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**EXPLODED VIEW OF J-1 SYSTEM PAYLOAD VEHICLE ON DOLLYS.
FROM LEFT TO RIGHT ARE**

- 1 AGENA ADAPTOR CONIC**
- 2 INSTRUMENT NUMBER TWO BARREL**
- 3 INSTRUMENT NUMBER ONE BARREL**
- 4 RECOVERY BARREL**
- 5 FAIRING**

NOT IN VIEW IS ABLATIVE NOSE CONE

① →

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**HORIZONTAL VIEW OF J-1 SYSTEM PAYLOAD VEHICLE FULLY
ASSEMBLED AND READY FOR COUPLING WITH THE AGENA/THORAD
VEHICLE. FROM RIGHT TO LEFT ARE**

- 1 CONIC**
- 2 INSTRUMENT BARREL**
- 3 INSTRUMENT BARREL**
- 4 RECOVERY BARREL**
- 5 FAIRING**
- 6 A-SRV THERMAL ABLATIVE SHIELD**

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ONE PANORAMIC RECIPROCATING CAMERA MOUNTED IN J-1
SYSTEM INSTRUMENT BARREL. THIS SIDE OF THE CAMERA
INTERFACES WITH SUPPLY OR TAKEUP SECTIONS

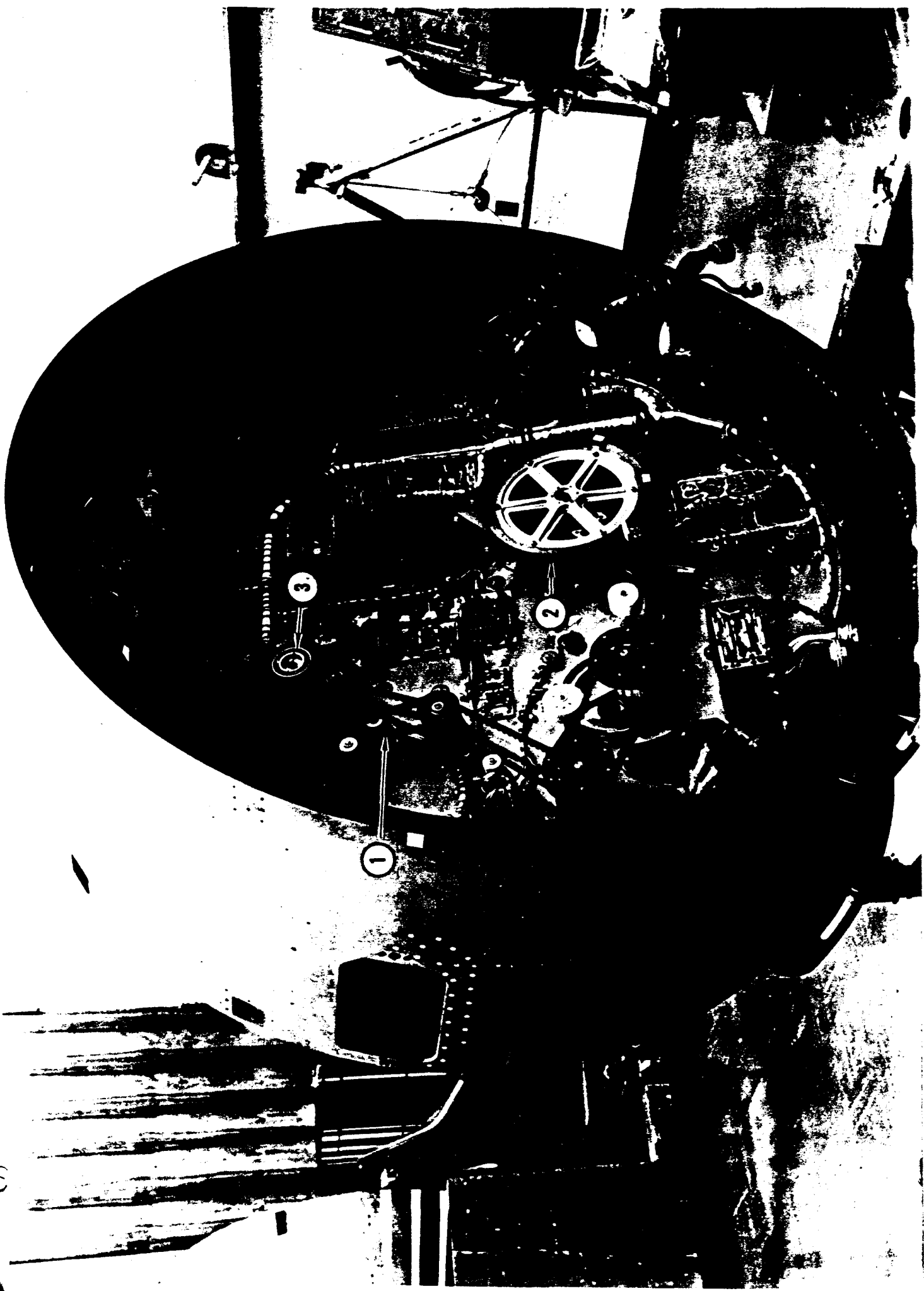
NOTE: 1 DOOR FOR HORIZON OPTICS

2 ALUMINIZED THERMAL SHIELD

3 SCAN ARM ASSEMBLY

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TOP SECRET C

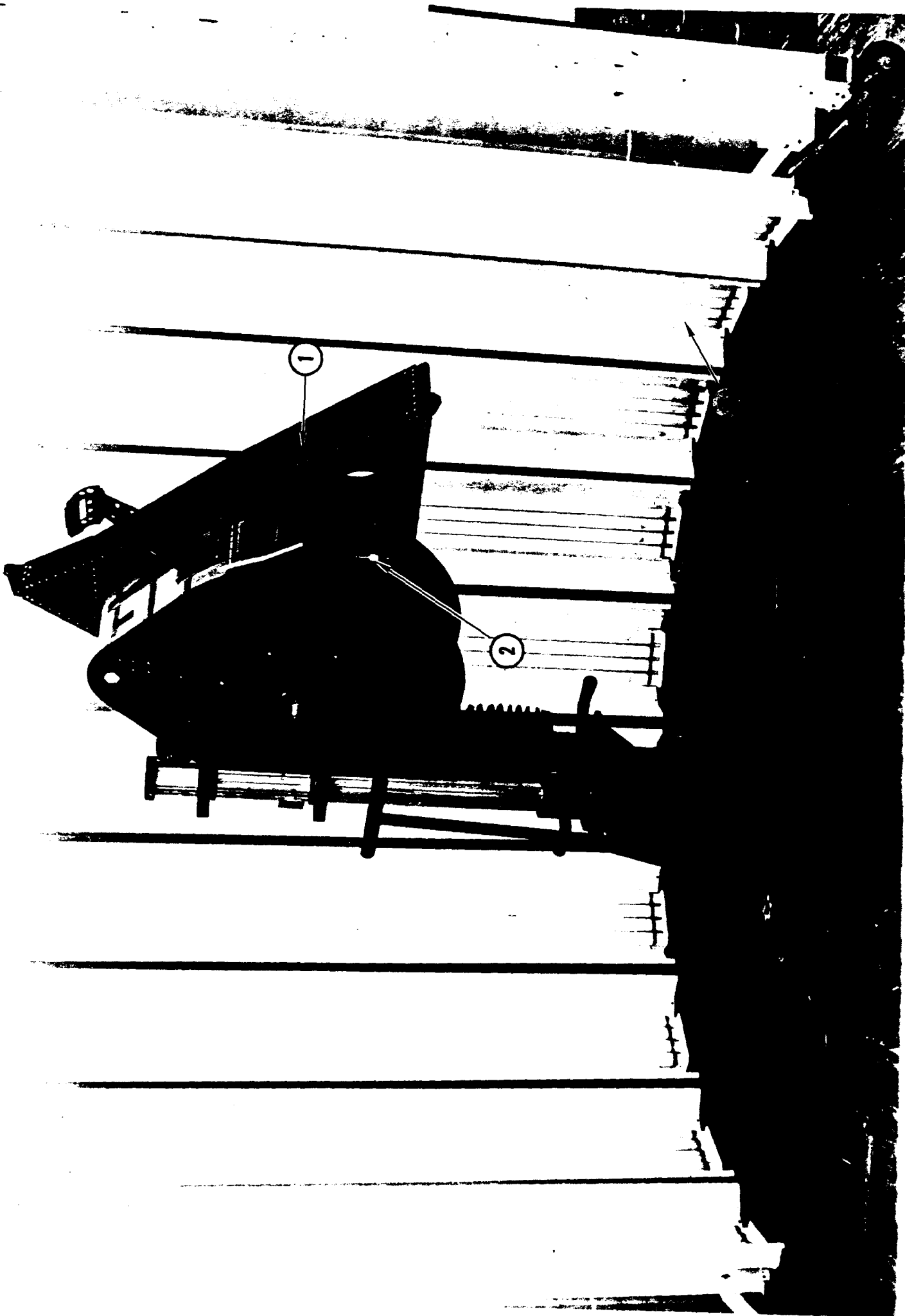


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J-3

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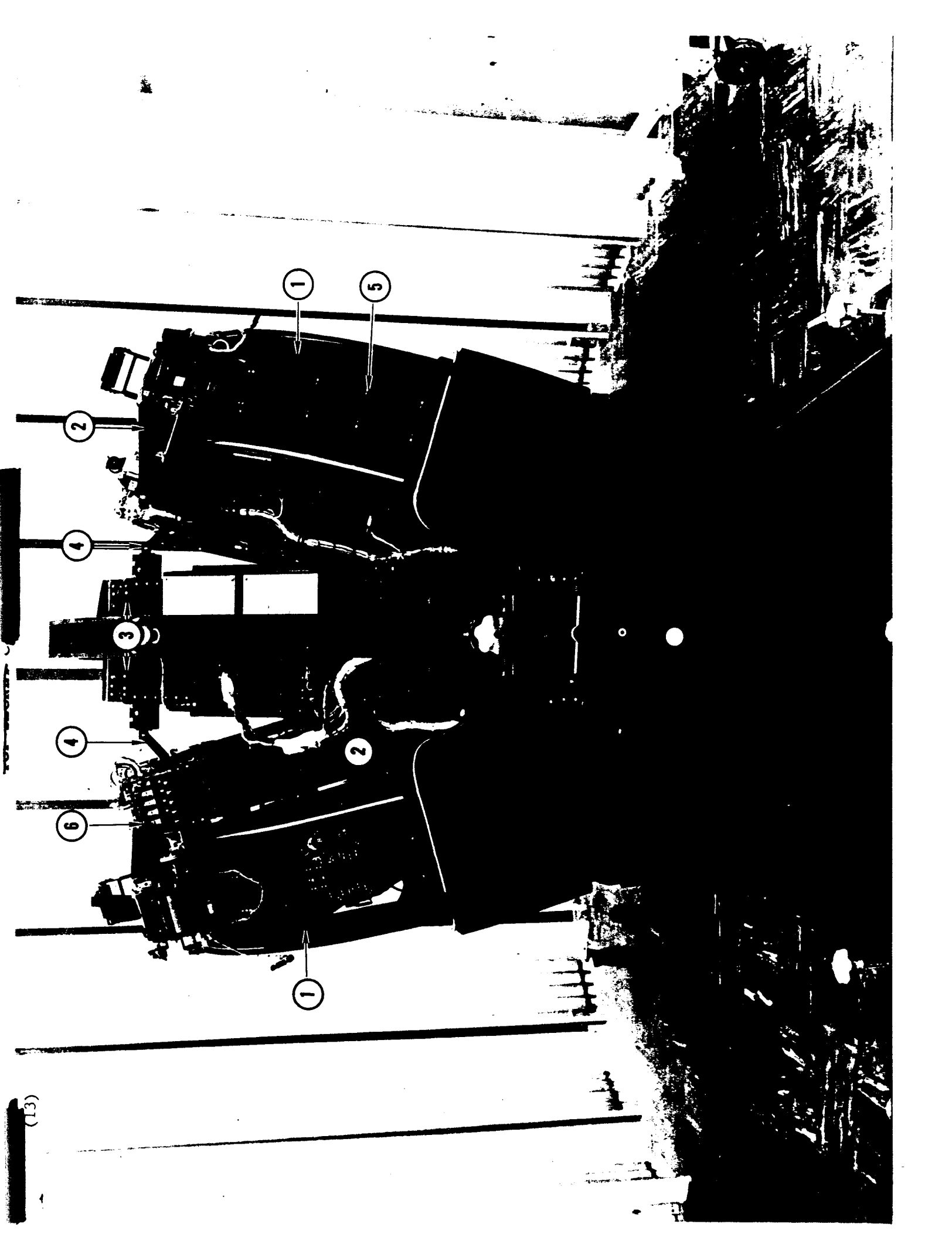


FILM SUPPLY CASSETTE ON DOLLY READY FOR LOADING INTO
INSTRUMENT BARREL

NOTE: 1 DELTA MOUNT

2 CONSTANT TENSION ASSEMBLY

3 FLUORESCENT LIGHT STRUCTURE TO TEST FOR
LIGHT LEAKS



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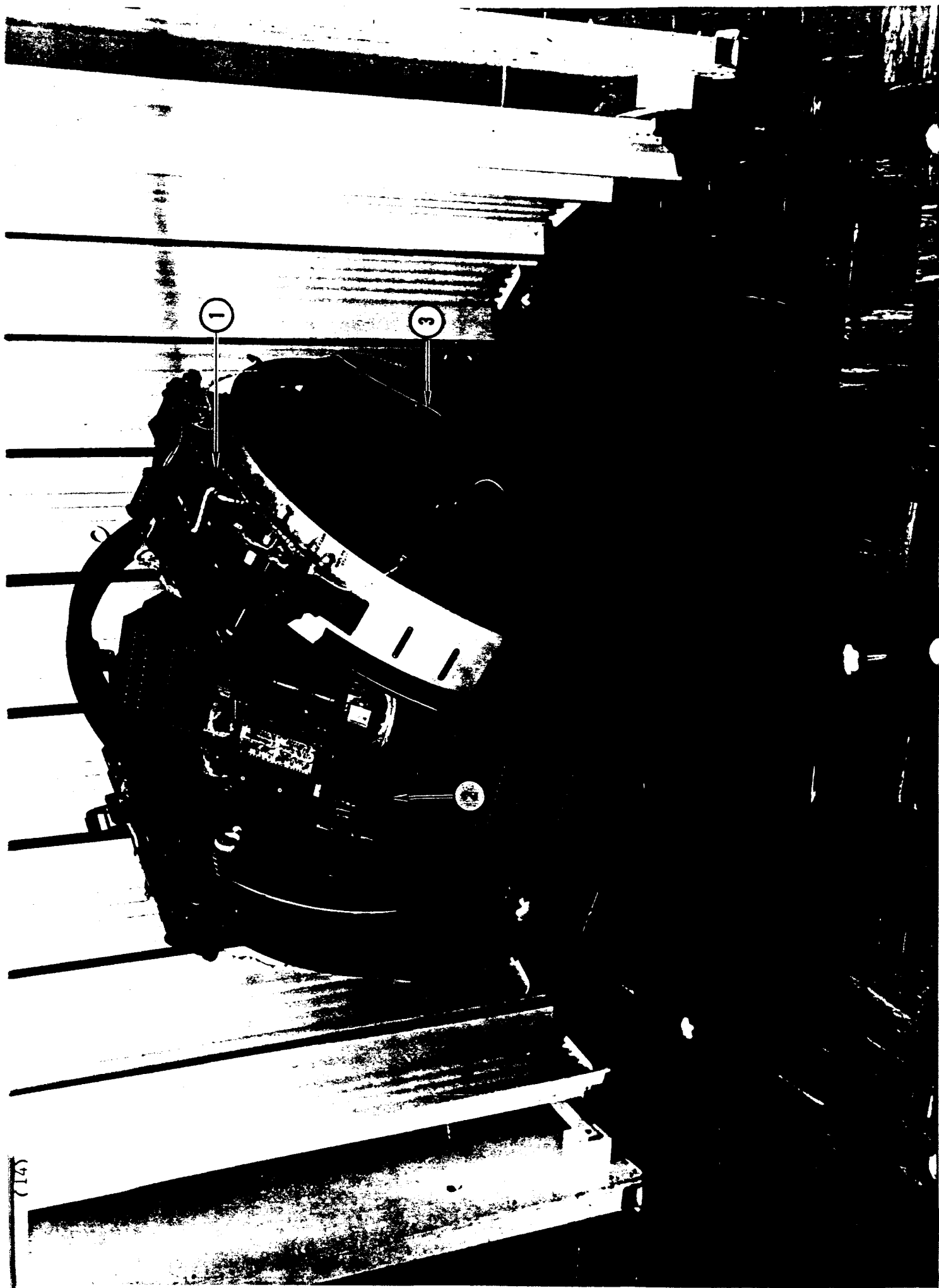
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PROFILE VIEW OF PANORAMIC CAMERA PAIR FOR J-3 SYSTEM

- NOTE: 1 DRUMS**
- 2 CAMERA SUPPORT STRUCTURES**
- 3 DELTA MOUNT**
- 4 IMC RODS**
- 5 DRUM ROLLERS**
- 6 SWITCH CLUSTER FOR INTERNAL INSTRUMENT CONTROL**



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**HIGH OBLIQUE VIEW OF PANORAMIC CAMERA PAIR FOR J-3
SYSTEM**

NOTE: 1 FILM TRANSPORT ASSEMBLY

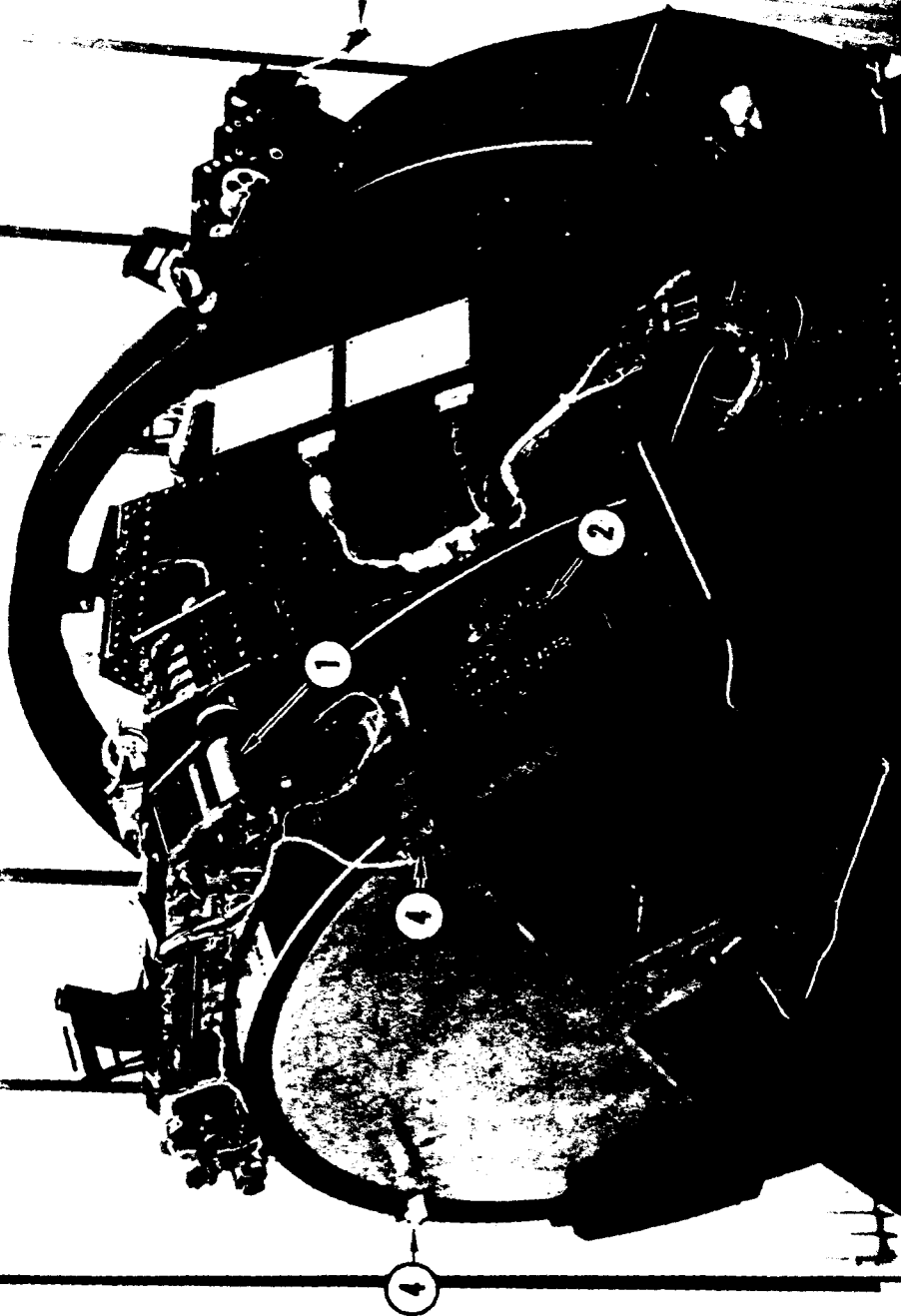
**2 MAIN ELECTRONICS BOX WHICH INTERFACES
ELECTRICALLY WITH THE AGENA VEHICLE**

3 FIBER OPTICS BUNDLE

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TOP SECRET - C

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**LOW OBLIQUE VIEW OF PANORAMIC CAMERA PAIR FOR J-3
SYSTEM**

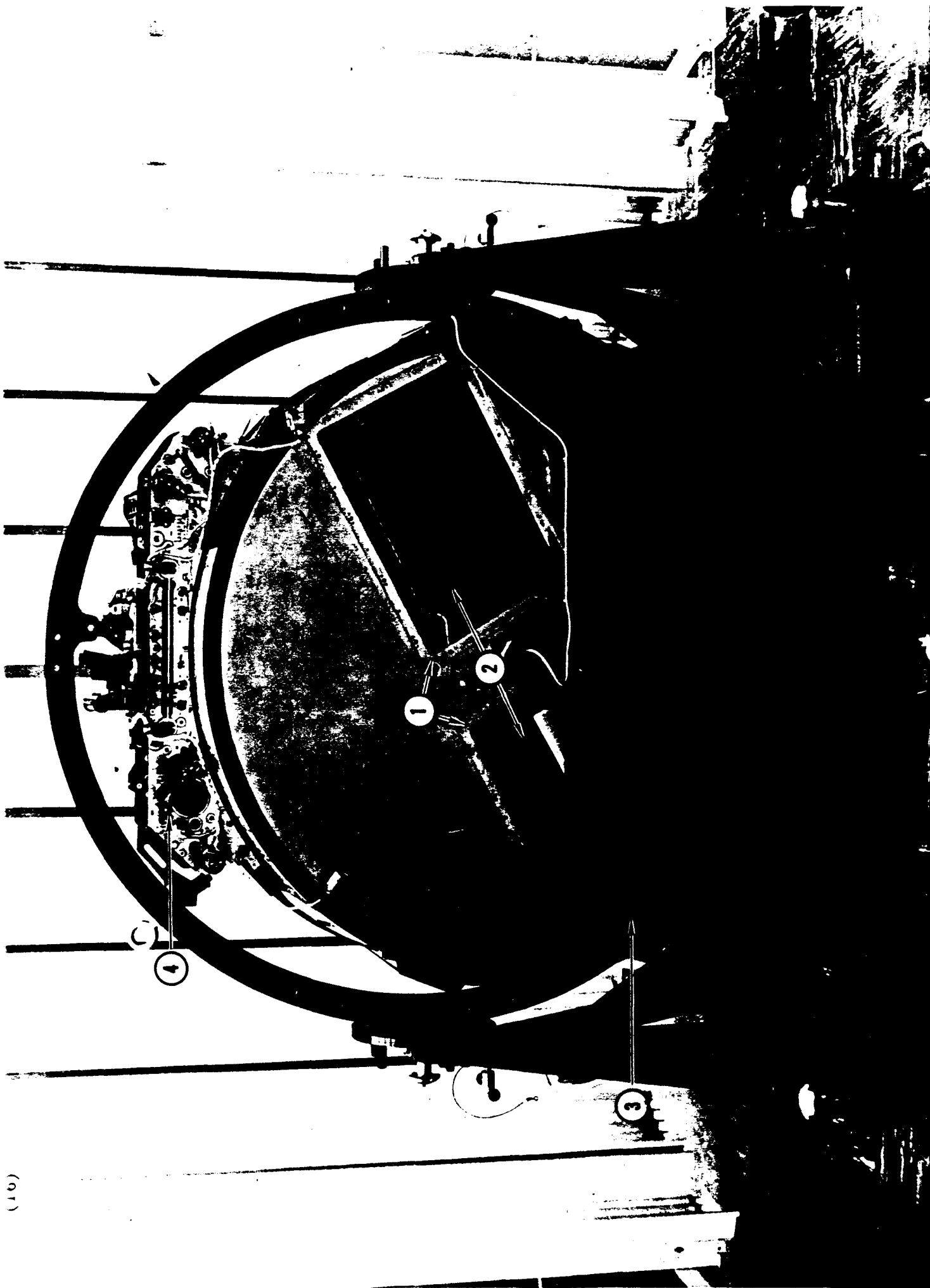
NOTE: 1 FRAME METERING ROLLER

2 SCAN HEAD ASSEMBLY

3 TEST-FRAME MOUNT

**4 ELECTRICAL CONNECTIONS TO HORIZON OPTICS
(NOT PRESENT)**

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HEAD-ON VIEW OF PANORAMIC CAMERA PAIR FOR J-3 SYSTEM

NOTE: 1 ACCESS DOORS IN DRUM

2 PETZVAL LENS CONE

3 LIGHT SHIELD

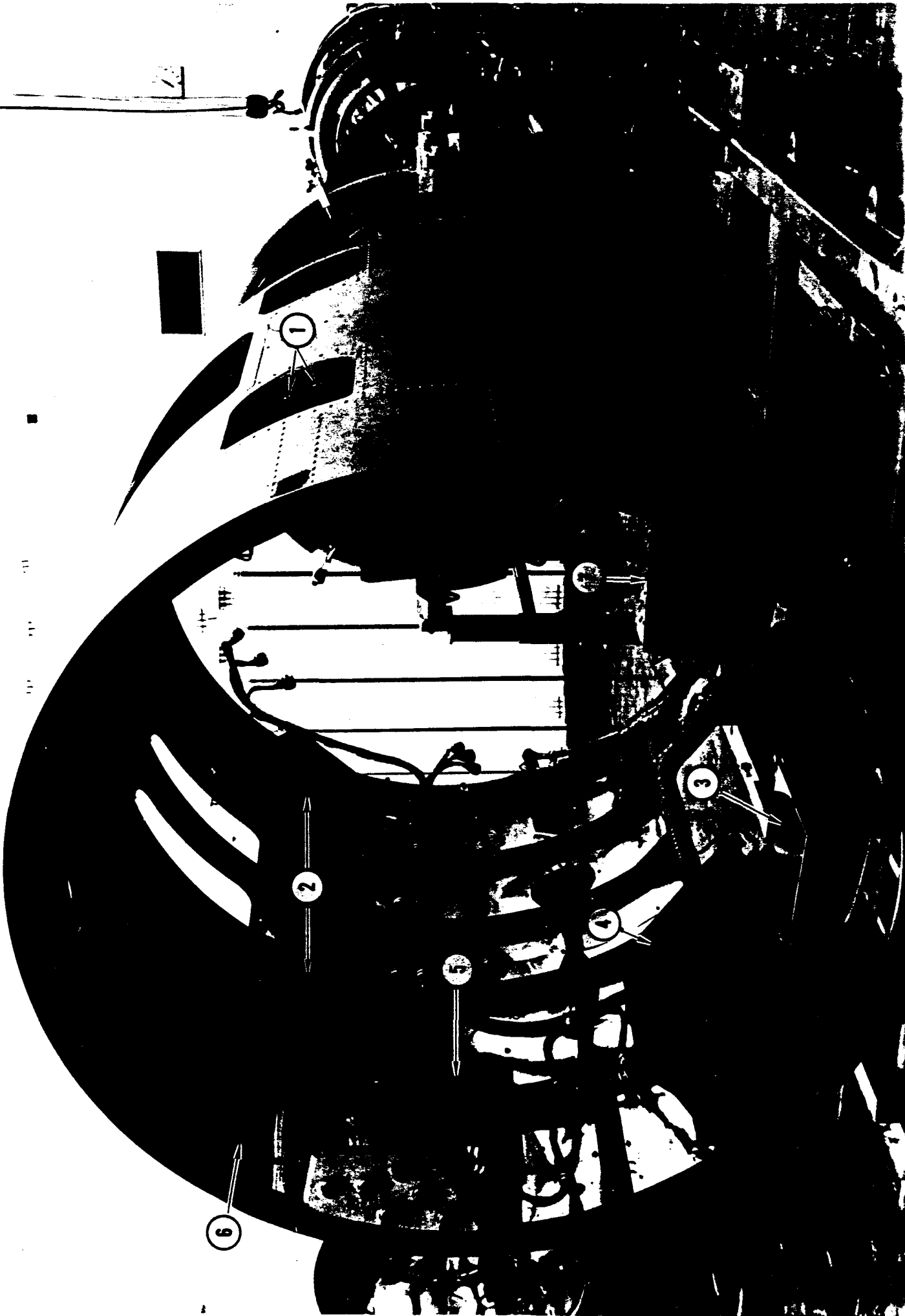
4 FILM TRANSPORT ASSEMBLY

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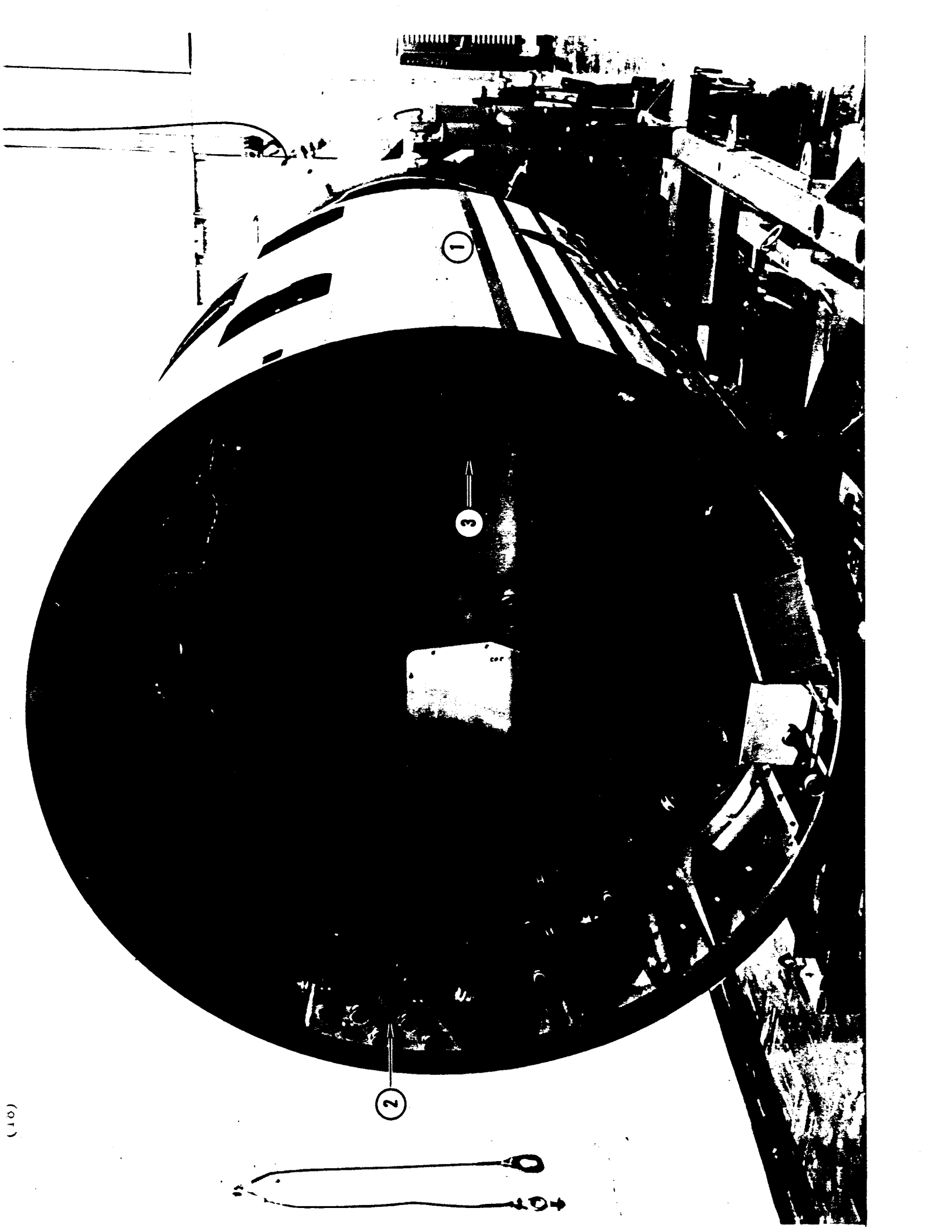


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J-3 SYSTEM MAIN INSTRUMENT BARREL ON SYSTEM DOLLY

- NOTE: 1 PYROTECHNIC DOOR EJECTION DEVICE**
- 2 HORIZON OPTICS BOOTS**
- 3 SYSTEM CLOCK**
- 4 ELECTRONICS PACKAGE FOR COMMAND FUNCTIONS**
- 5 AFT POWER SUBSYSTEM**
- 6 PYRO CURRENT MONITOR**
- 7 AFT TELEMETRY BOX**



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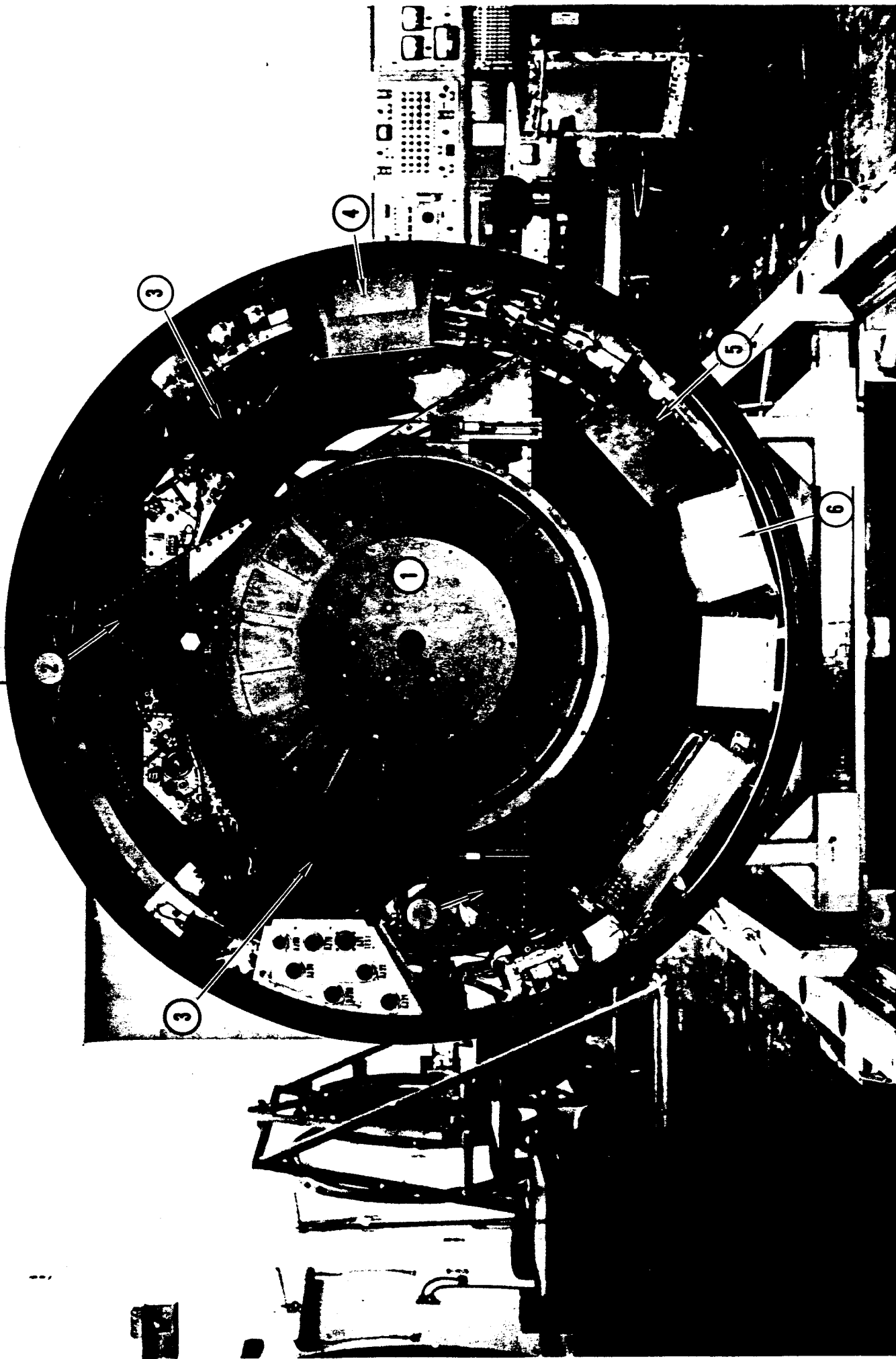
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(10)

REAR VIEW OF J-3 SYSTEM INSTRUMENT BARREL WITH
CAMERAS INSTALLED

NOTE: 1 SKIN COVER PASSIVE THERMAL CONTROL FOR
MISSIONS 1101 - 1105 INCLUSIVE

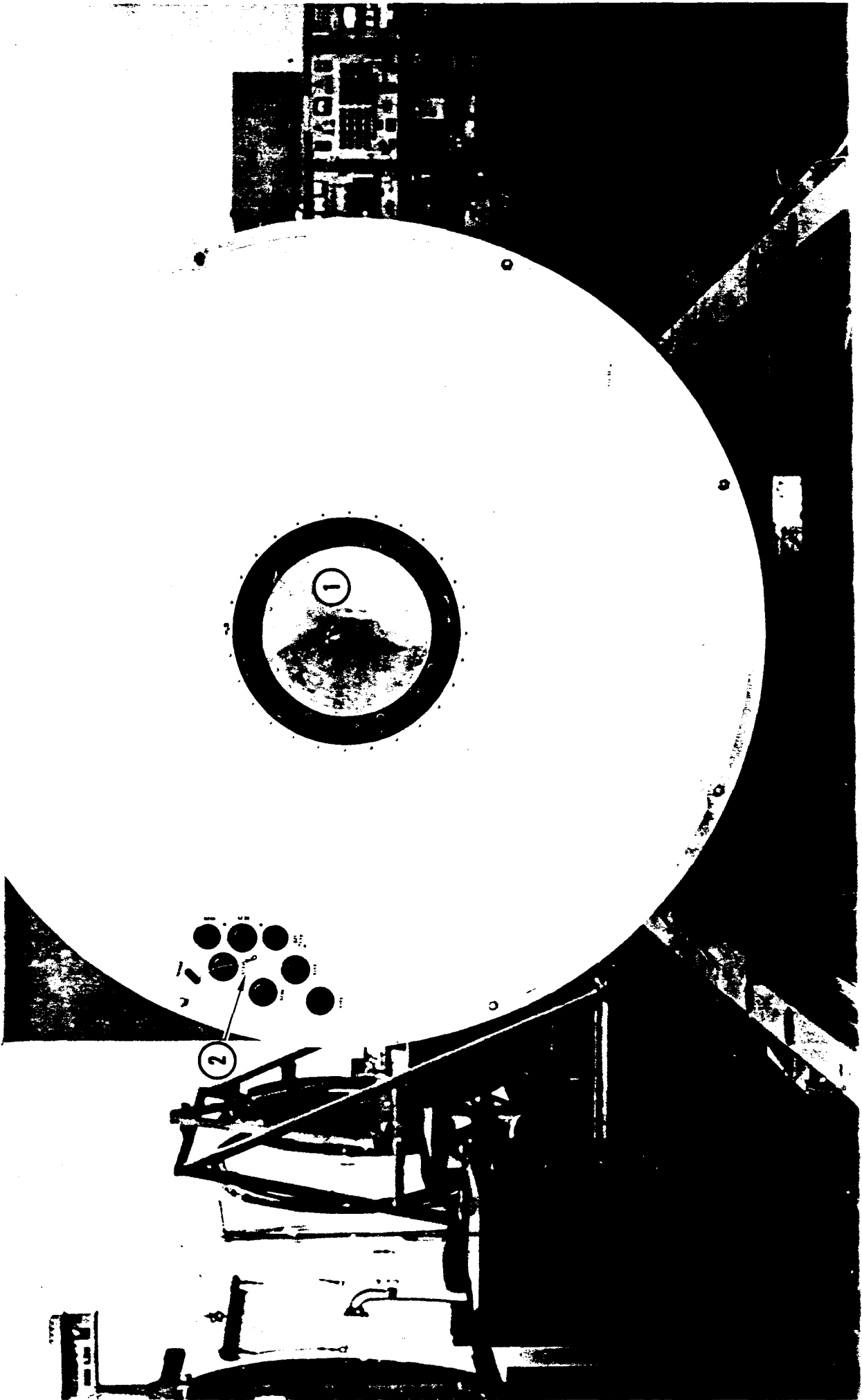
- 2 ELECTRICAL INTERFACE WITH AGENA VEHICLE
- 3 70mm FILM LEADER TO SUPPLY CASSETTE



DIRECT REAR VIEW OF J-3 SYSTEM INSTRUMENT BARREL FULLY INSTALLED

- NOTE: 1 FILM SUPPLY CASSETTE**
- 2 DELTA MOUNTING STRUCTURE**
- 3 FILM PATHS FROM SUPPLY CASSETTE TO MAIN CAMERAS**
- 4 SWITCH PROGRAMMER PROVIDING EXPOSURE CONTROL**
- 5 SLOPE PROGRAMMER (IMC SUBSYSTEM) TO DETERMINE
CR CYCLES AND NODDING RATES**
- 6 SILICON LIGHT PULSE (SLP) CONDITIONER CONTROLLING
CR FILM DATA BLOCK**

TOP SECRET C



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**DIRECT REAR VIEW OF PAYLOAD VEHICLE INTERFACE WITH AGENA
VEHICLE**

NOTE: 1 PRESSURE DIAPHRAGM

2 ELECTRICAL CONNECTORS FOR:

PYROTECHNIC SYSTEM (2 PLUGS)

POWER SYSTEM (1 PLUG)

COMMAND SYSTEM (2 PLUGS)

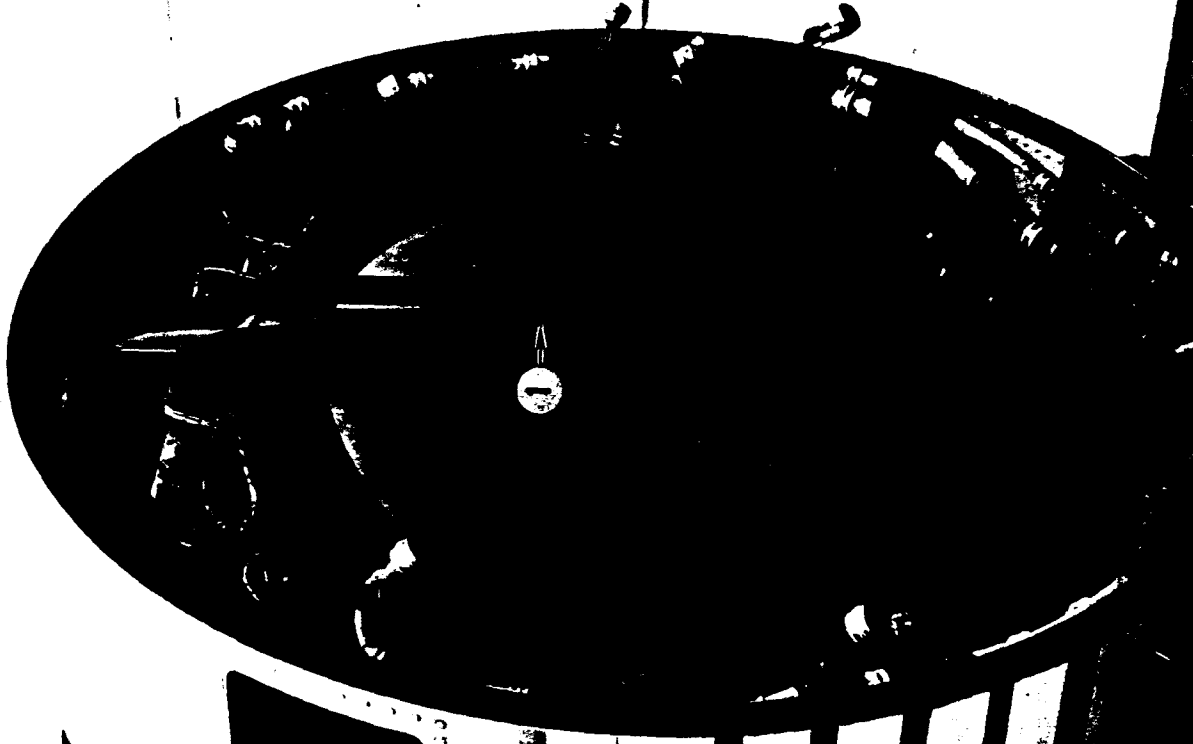
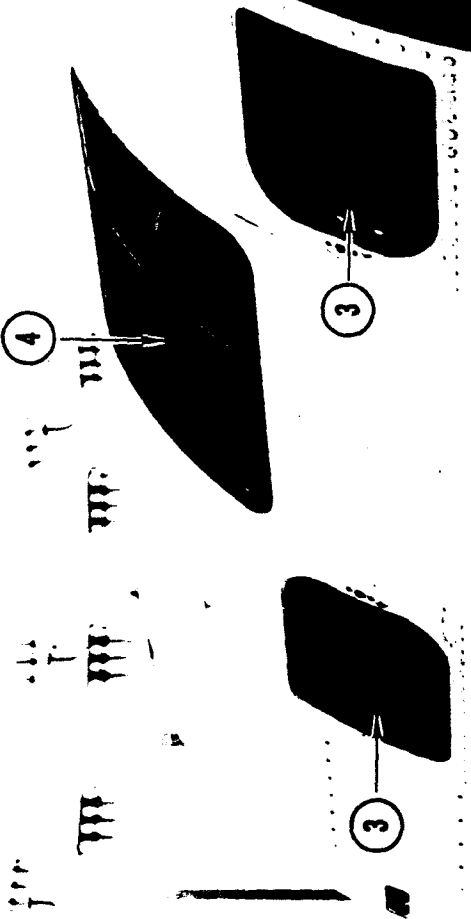
INSTRUMENTATION SYSTEM (1 PLUG)

TEST (1 PLUG)

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**FORWARD VIEW OF J-3 SYSTEM INSTRUMENT BARREL WITH
CAMERAS INSTALLED**

NOTE: 1 70mm FILM LEADER FOR TAKEUP CASSETTES

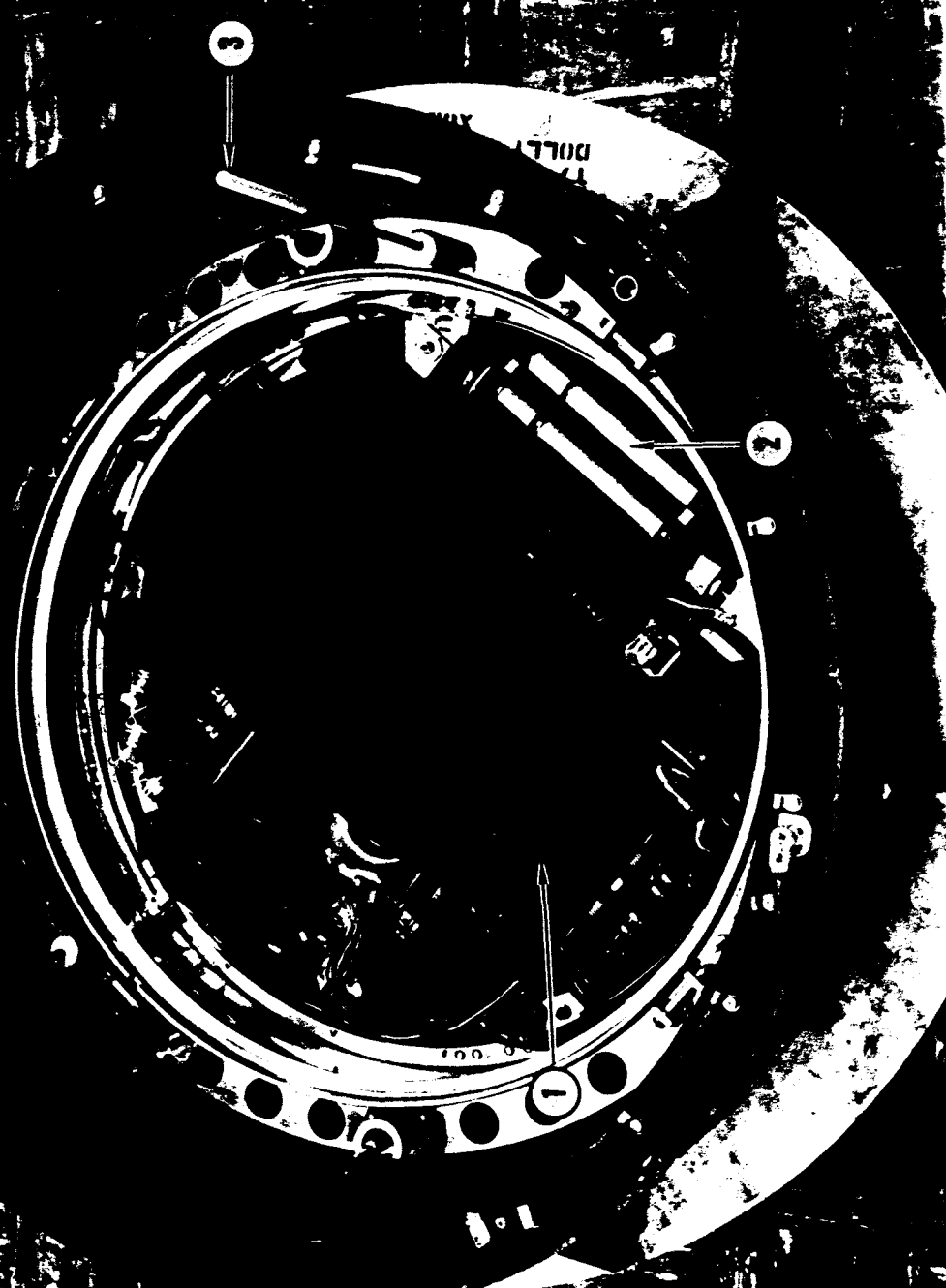
2 MAIN CAMERA DOOR

3 STARBOARD HORIZON OPTICS DOORS

4 ASSEMBLY ACCESS DOORS

TOP SECRET C

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INSIDE VIEW OF J-3 SYSTEM RECOVERY VEHICLE

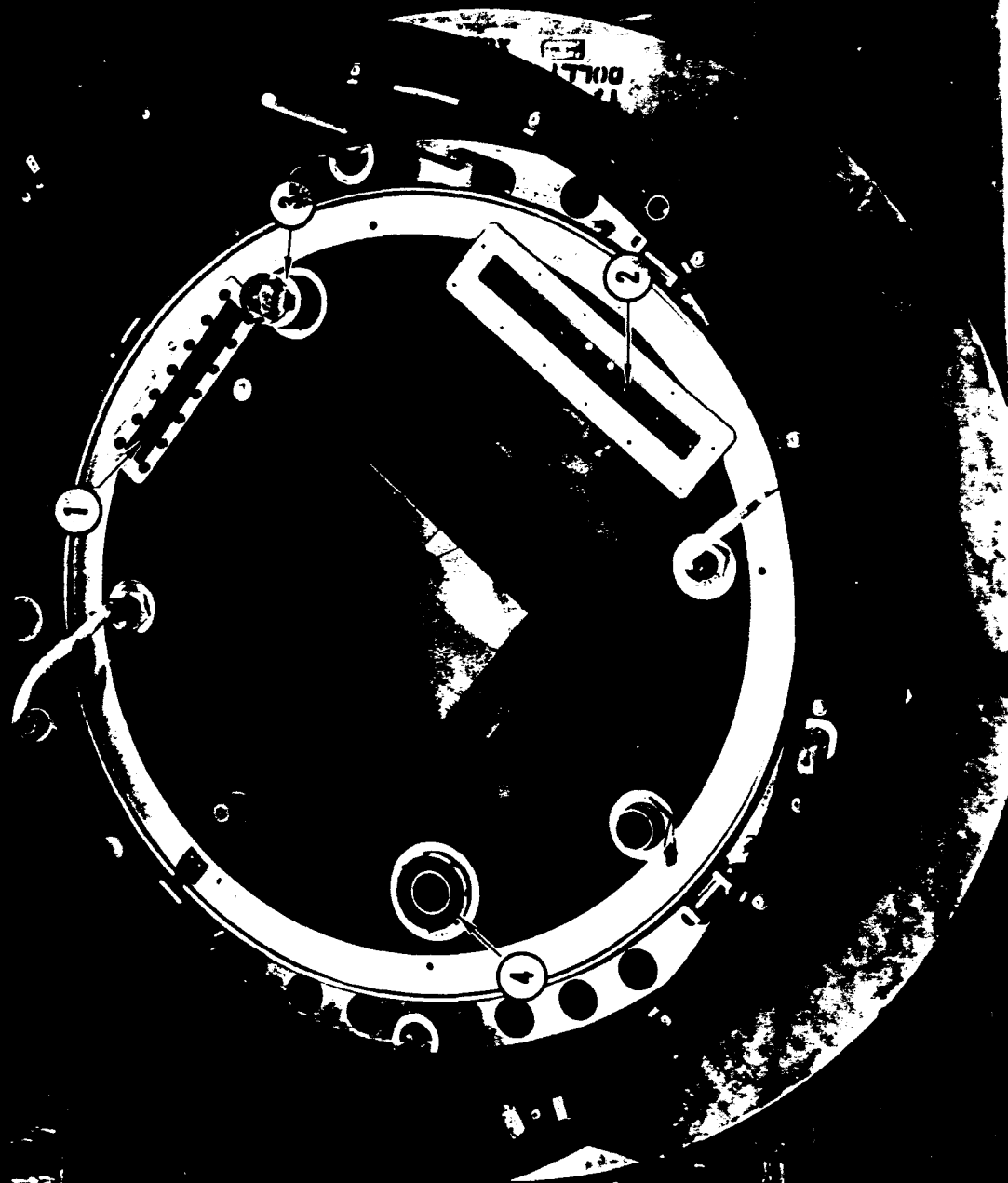
NOTE: 1 MAIN CAMERA TAKEUP SPOOLS

2 DISIC FILM TAKEUP ASSEMBLY

3 BEACON ANTENNAE FOR TRACKING RECOVERY

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J-3 SYSTEM SRV CAPSULE COVER

NOTE: 1 MAIN CAMERA WATERSEAL ASSEMBLY

2 DISIC WATERSEAL ASSEMBLY

3 SIGNAL BEACON IN CASE WET RECOVERY IS REQUIRED

**4 BREAKAWAY CONNECTOR FOR ELECTRICAL DEMATING
AT INITIATION OF RECOVERY SEQUENCE**

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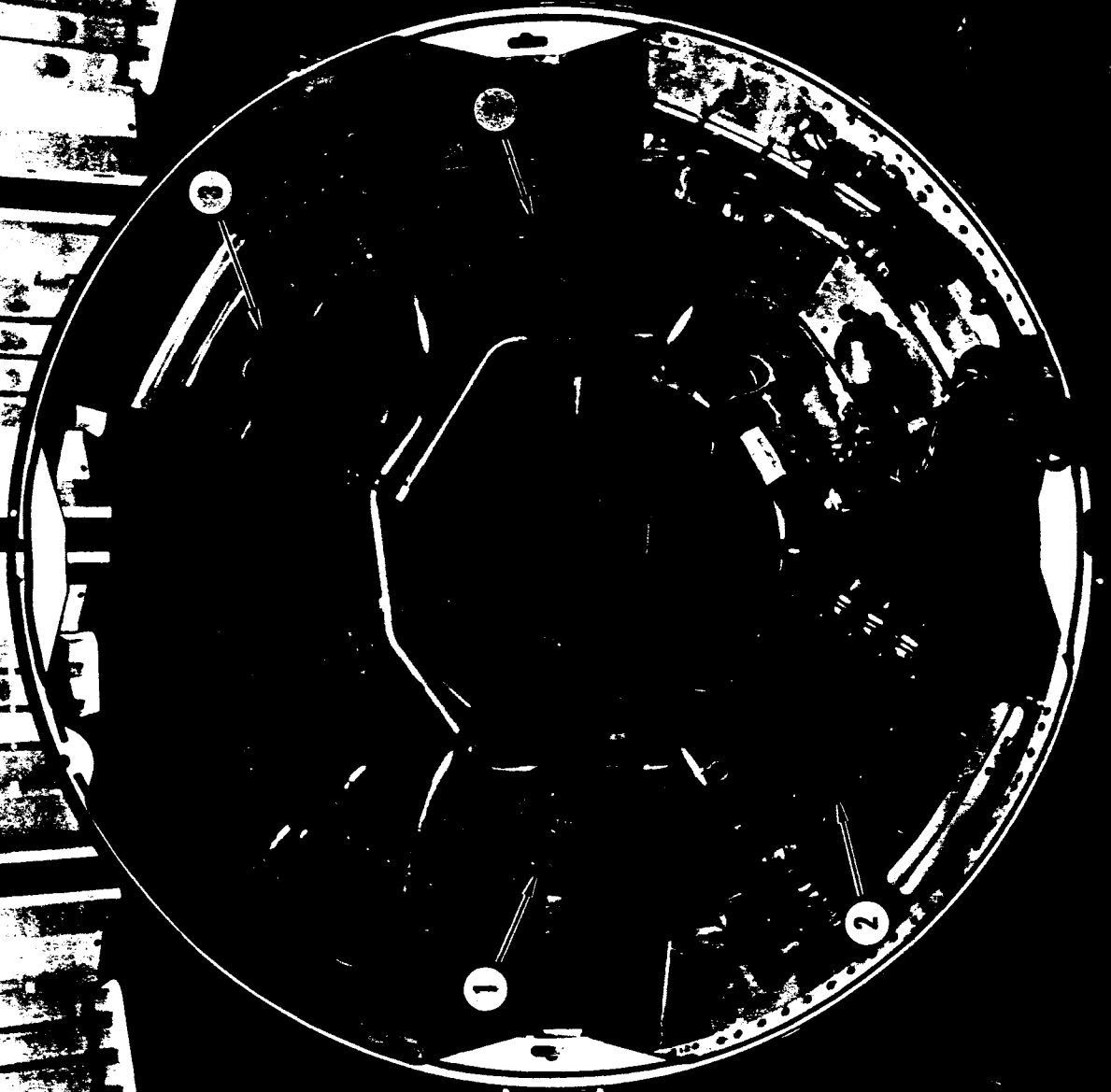
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**PARACHUTE FIBERGLASS THERMAL COVERING FOR J-3 RECOVERY
VEHICLE**

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INTERIOR VIEW OF J-3 SYSTEM THRUST CONE ASSEMBLY

NOTE: 1 SPIN AND DESPIN COLD GAS BOTTLES

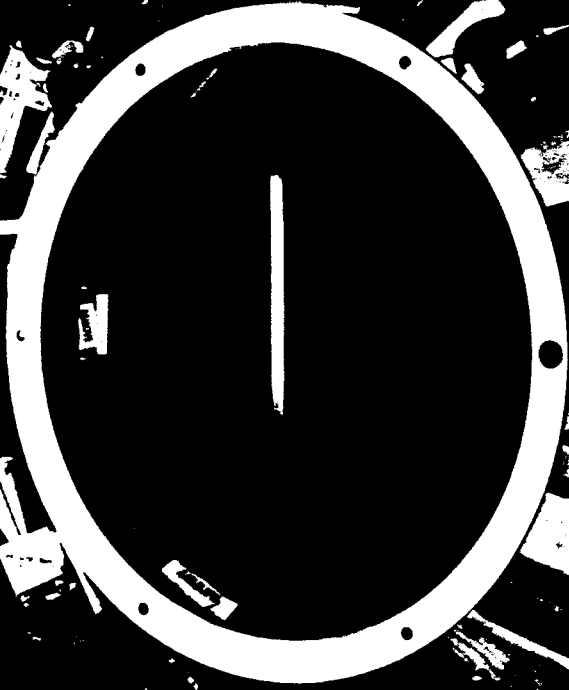
2 THRUST CONE PROGRAMMER

**3 3-G SWITCH FOR CONTROLLING
RECOVERY SEQUENCE**

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DESIGN

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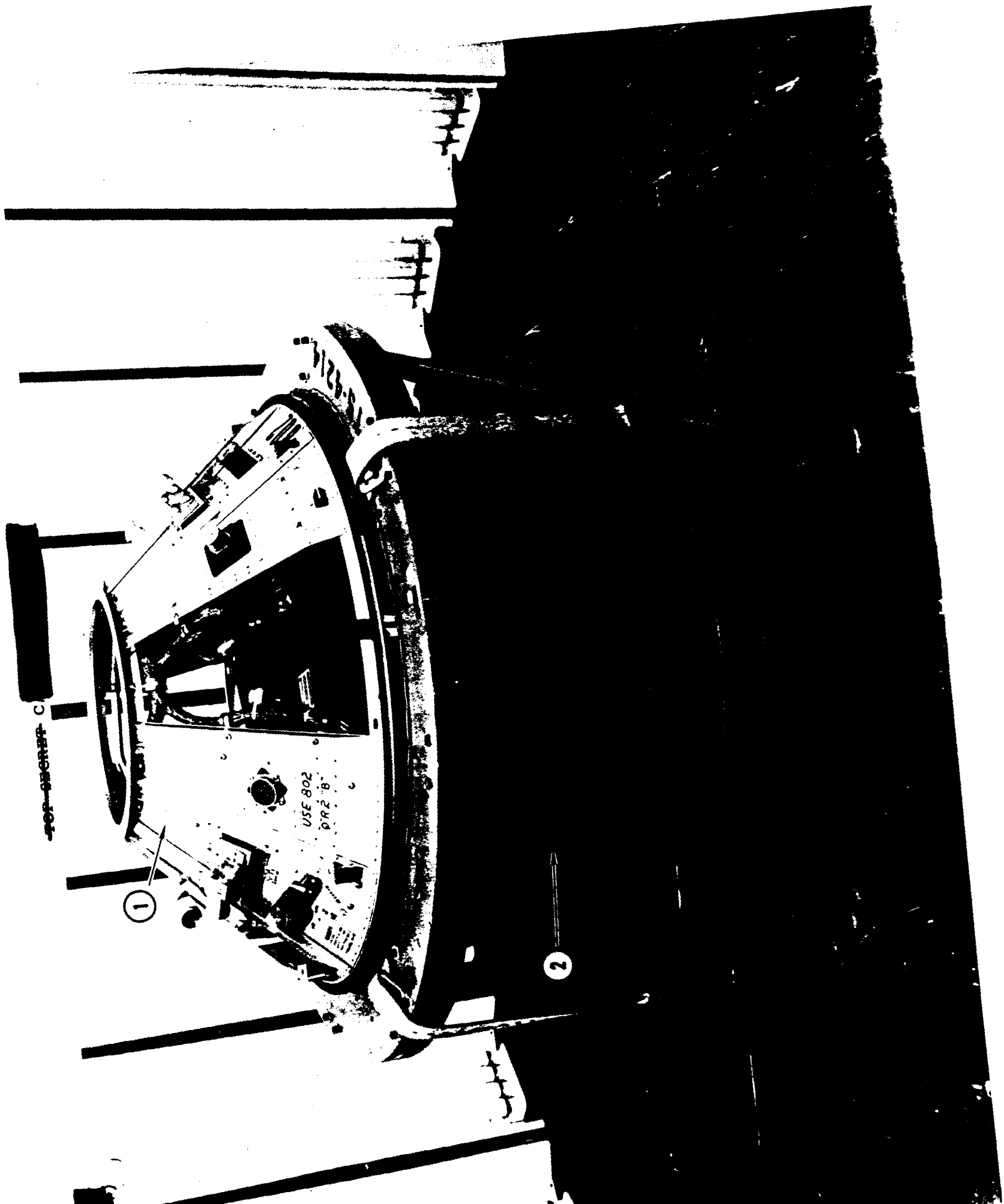
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EXTERNAL VIEW OF J-3 SYSTEM THRUST CONE ASSEMBLY

NOTE: 1 SPIN AND DESPIN NOZZLES

2 GAS SUPPLY BOTTLES

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**ENTIRE SRV FOR J-3 SYSTEM ASSEMBLED AND HELD
VERTICALLY IN DOLLY**

NOTE: 1 THRUST CONE ASSEMBLY

2 THERMAL ABLATIVE SHIELD

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10° CONIC WHICH HOUSES THE B-RECOVERY VEHICLE

NOTE: 1 DUAL IMPROVED STELLAR INDEX CAMERA (DISIC)

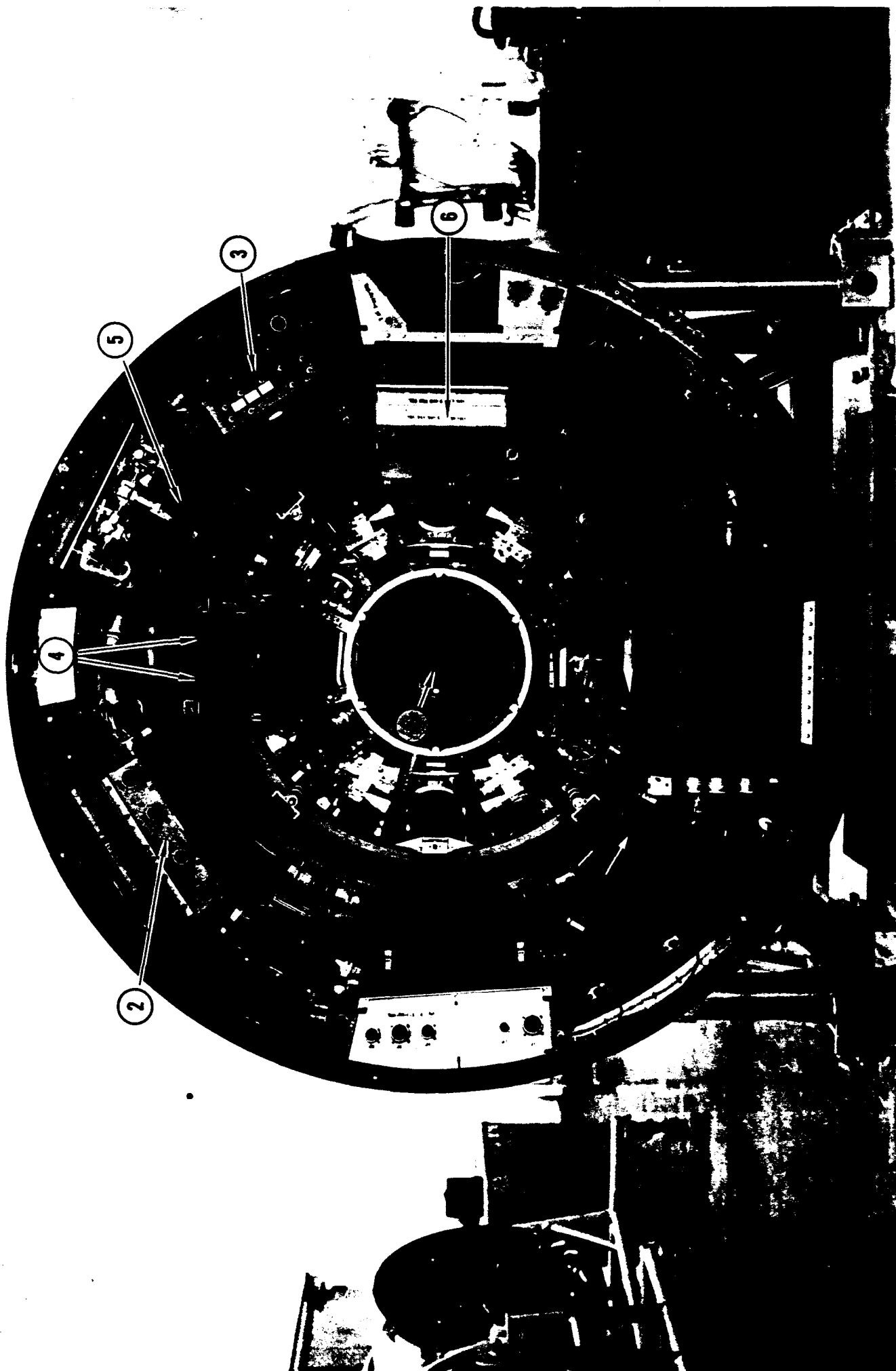
2 DISIC FILM SUPPLY CASSETTE

3 DISIC EXIT HOUSING

4 FORWARD POWER SUBSYSTEM

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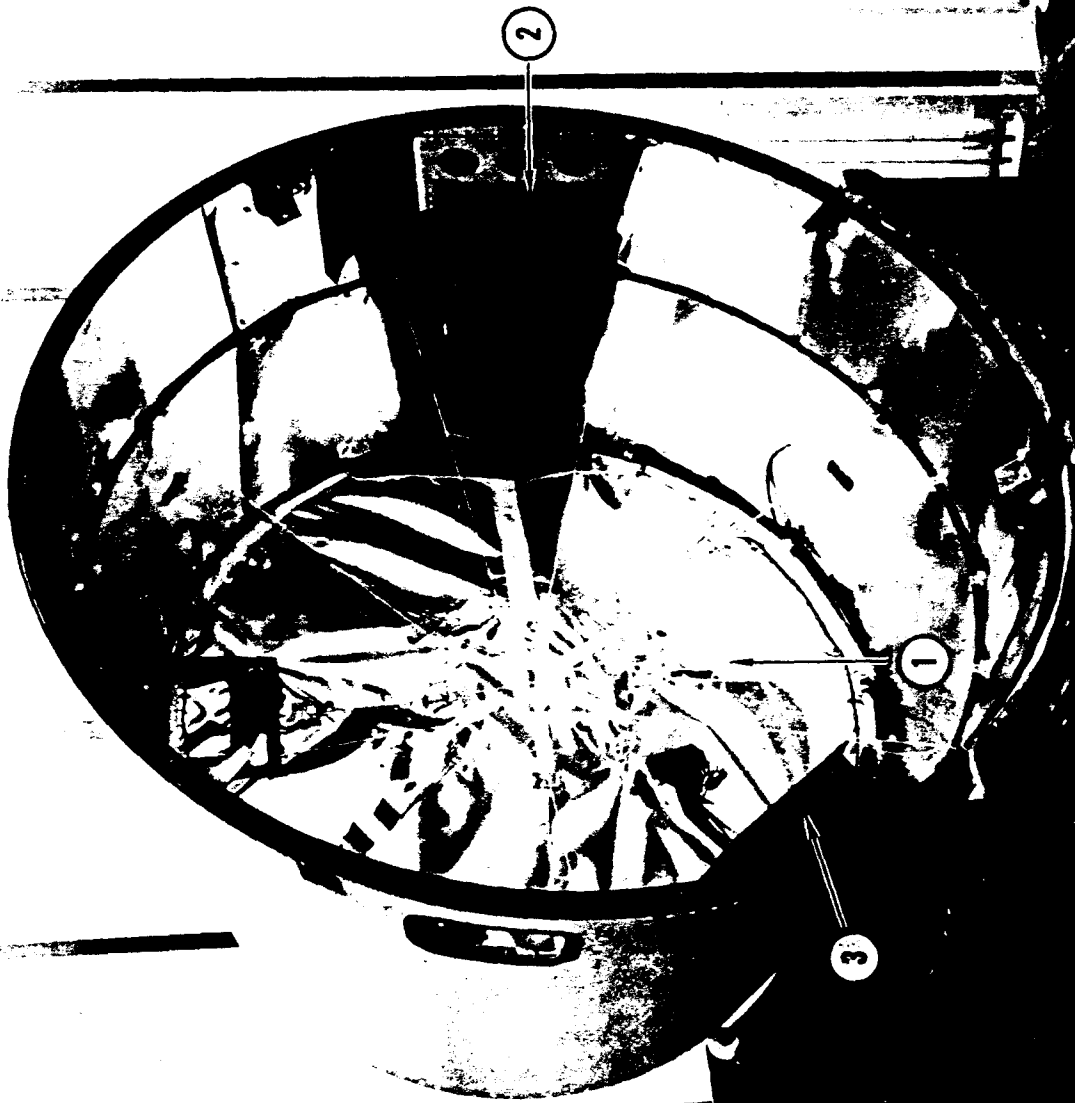
(62)

10° CONIC WITH RECOVERY VEHICLE INSTALLED

NOTE: 1 RETRO ROCKET

- 2 PYRO J-BOX WHICH TRANSFERS A-MISSION TO
B-MISSION IN ORBIT**
- 3 TRANSFER SUBSYSTEM**
- 4 CR FILM PATHS TO TAKEUP CASSETTE**
- 5 TWO-BOTTLE PRESSURE MAKE-UP SYSTEM**
- 6 CUT AND SPLICE MECHANISM (TUNA)**

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15° FAIRING WHICH COUPLES THE A-RECOVERY VEHICLE TO THE FORWARD END OF THE CONIC FOR THE J-3 SYSTEM

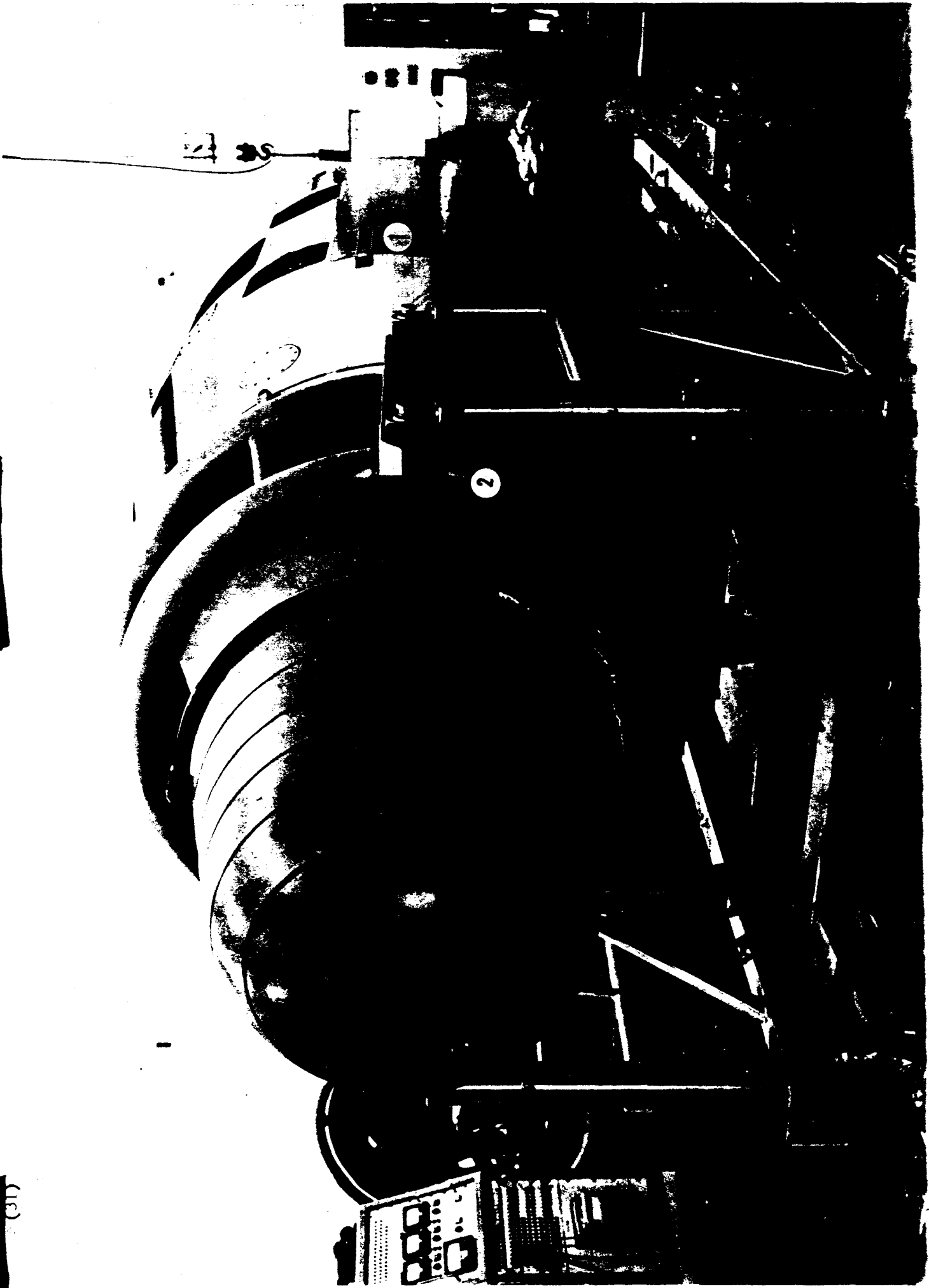
NOTE: 1 THERMAL BLANKET (ALUMINUM/GLASS-IMPREGNATED NYLON) WHICH HELPS MAINTAIN THERMAL BALANCE WITHIN THE PAYLOAD VEHICLE AFTER SEPARATION OF A-SRV

2 DISIC FILM CHUTE

3 FORWARD TELEMETRY BOX

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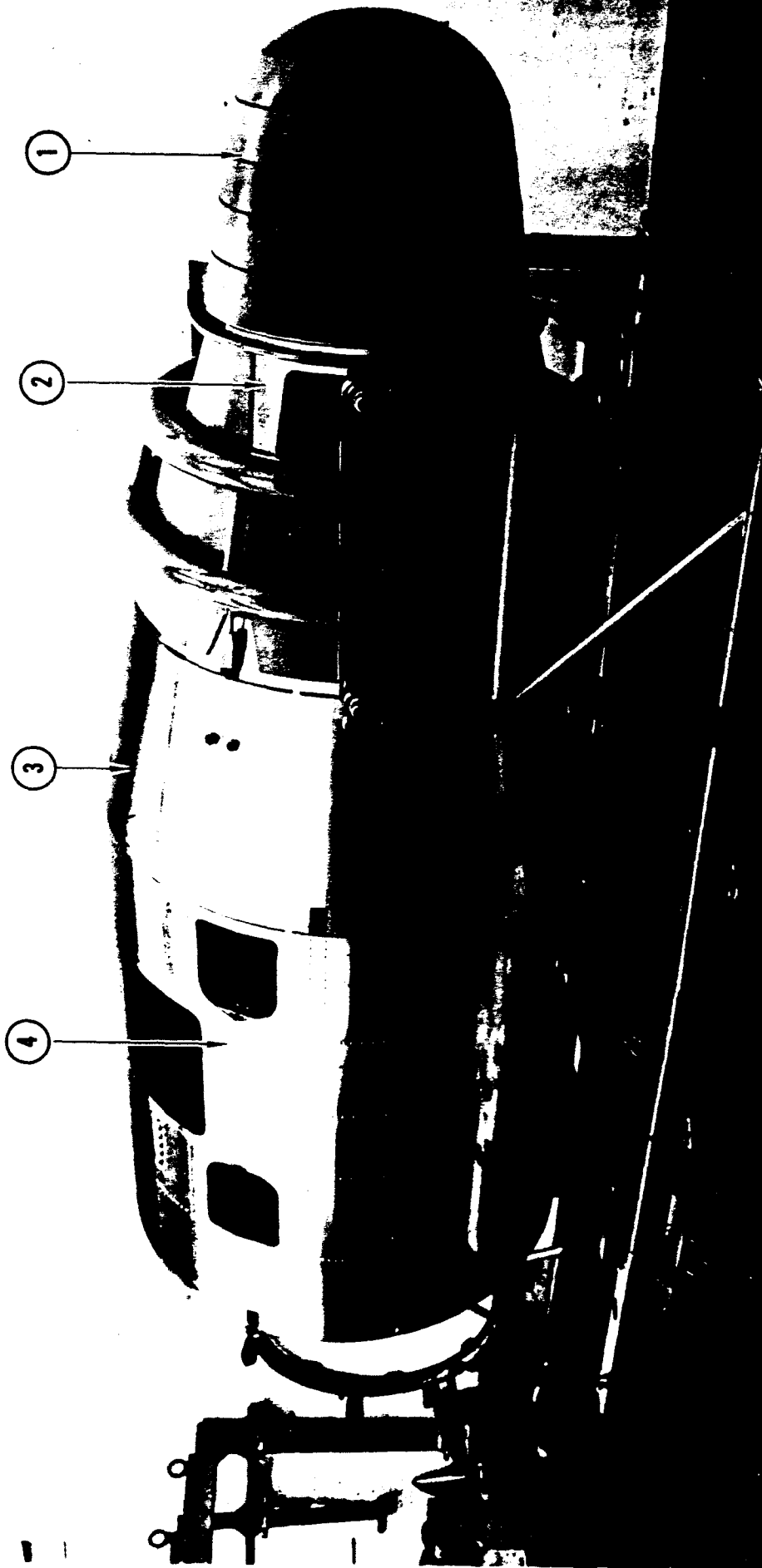
**FORWARD OBLIQUE VIEW OF J-3 SYSTEM PAYLOAD VEHICLE
FULLY ASSEMBLED**

**NOTE: 1 PASSIVE THERMAL CONTROL PAINT COVERING FOR
MISSION 1106 AND UP**

2 SYSTEM DOLLY

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**PORTSIDE VIEW OF J-3 SYSTEM PAYLOAD VEHICLE FULLY
ASSEMBLED IN HORIZONTAL POSITION**

NOTE: 1 SRV NOSE CONE

2 15° FAIRING

3 10° CONIC

4 MAIN INSTRUMENT BARREL