

Figure 19. Boroscope Assembly

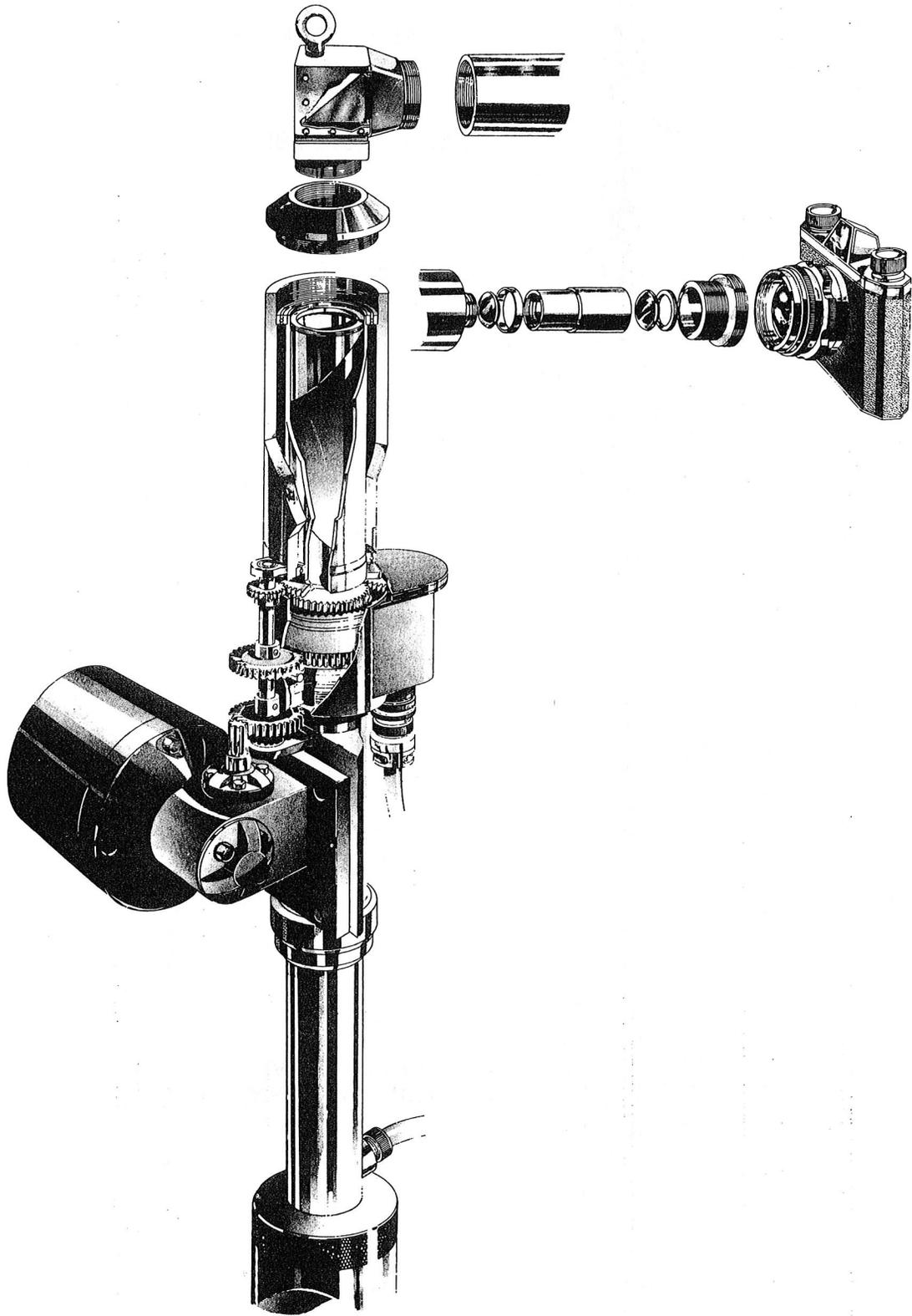
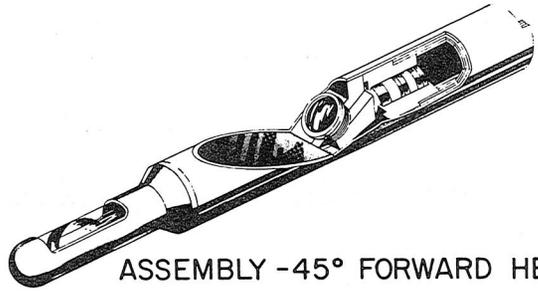
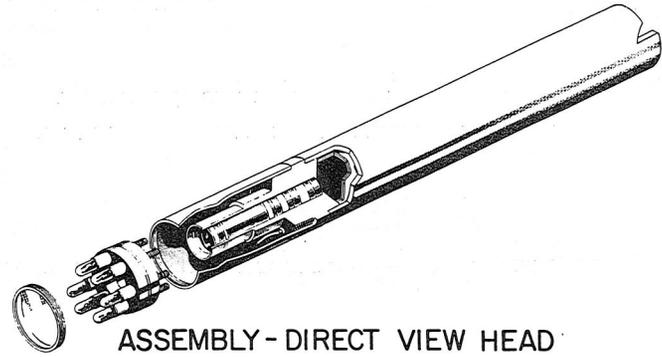


Figure 20. Boroscope Upper Assembly

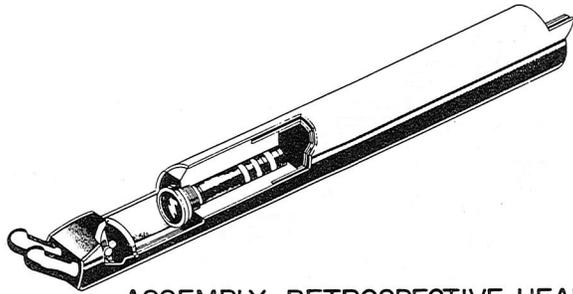
NAA-SR-6359
50



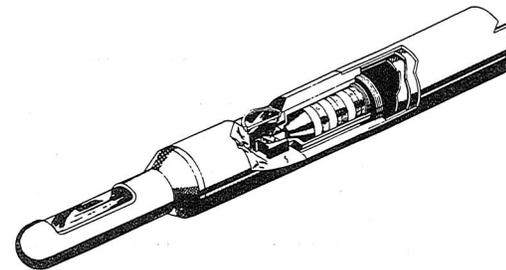
ASSEMBLY - 45° FORWARD HEAD



ASSEMBLY - DIRECT VIEW HEAD



ASSEMBLY - RETROSPECTIVE HEAD



ASSEMBLY - RIGHT ANGLE HEAD

Figure 21. Boroscope Viewing Heads

Figure 21. Boroscope Viewing Heads

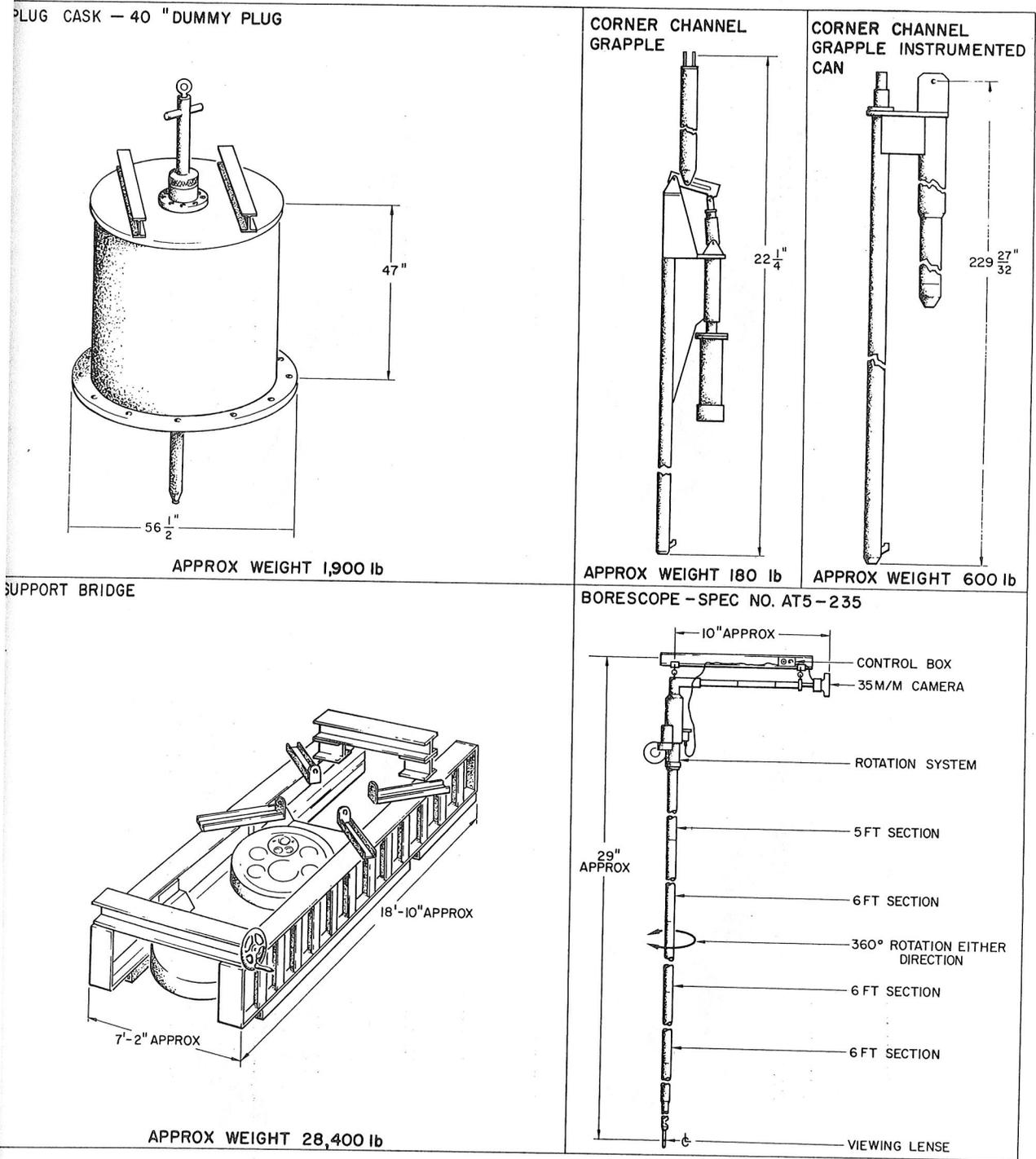


Figure 22. Illustrated Components

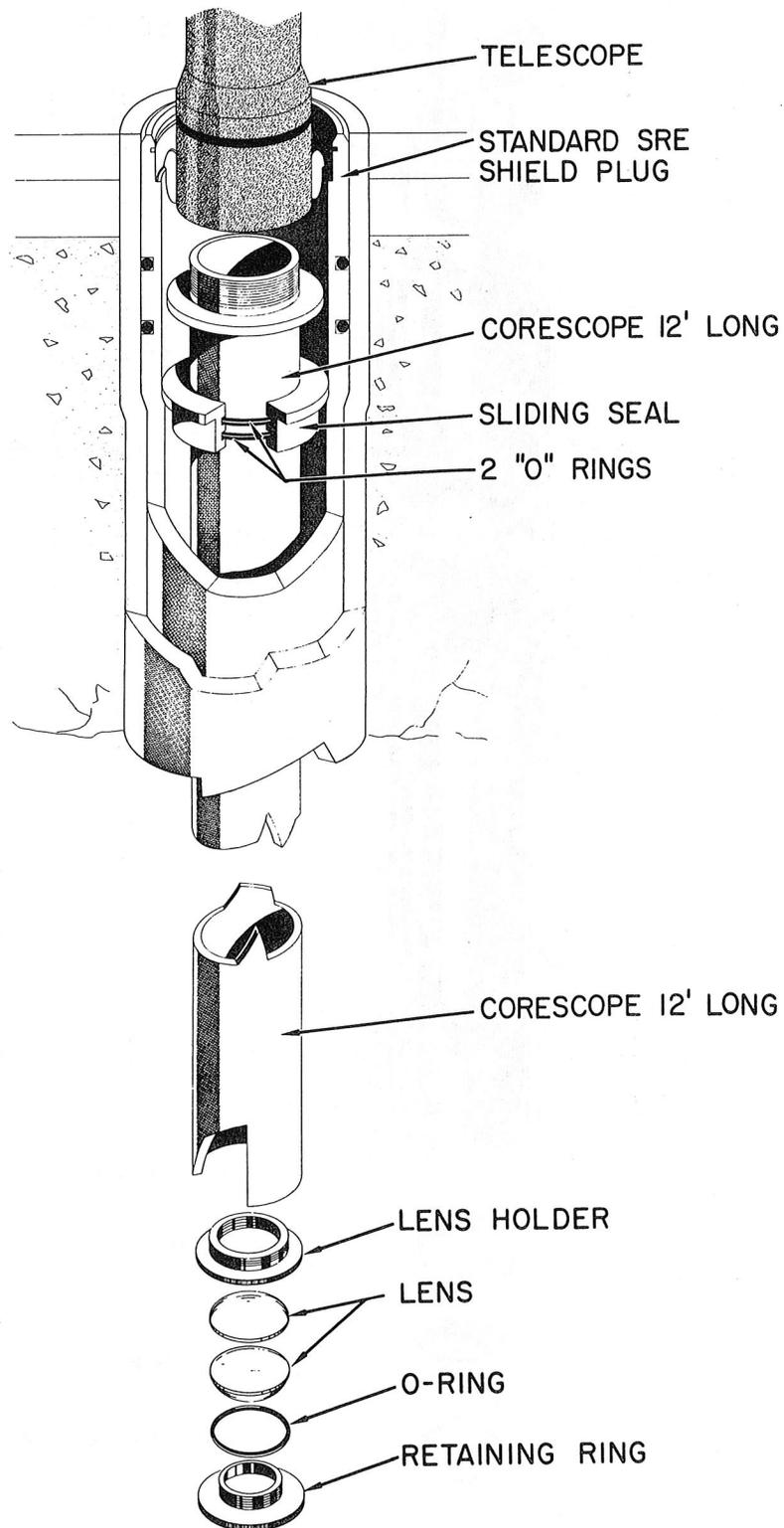


Figure 23. Corescope, Mark I

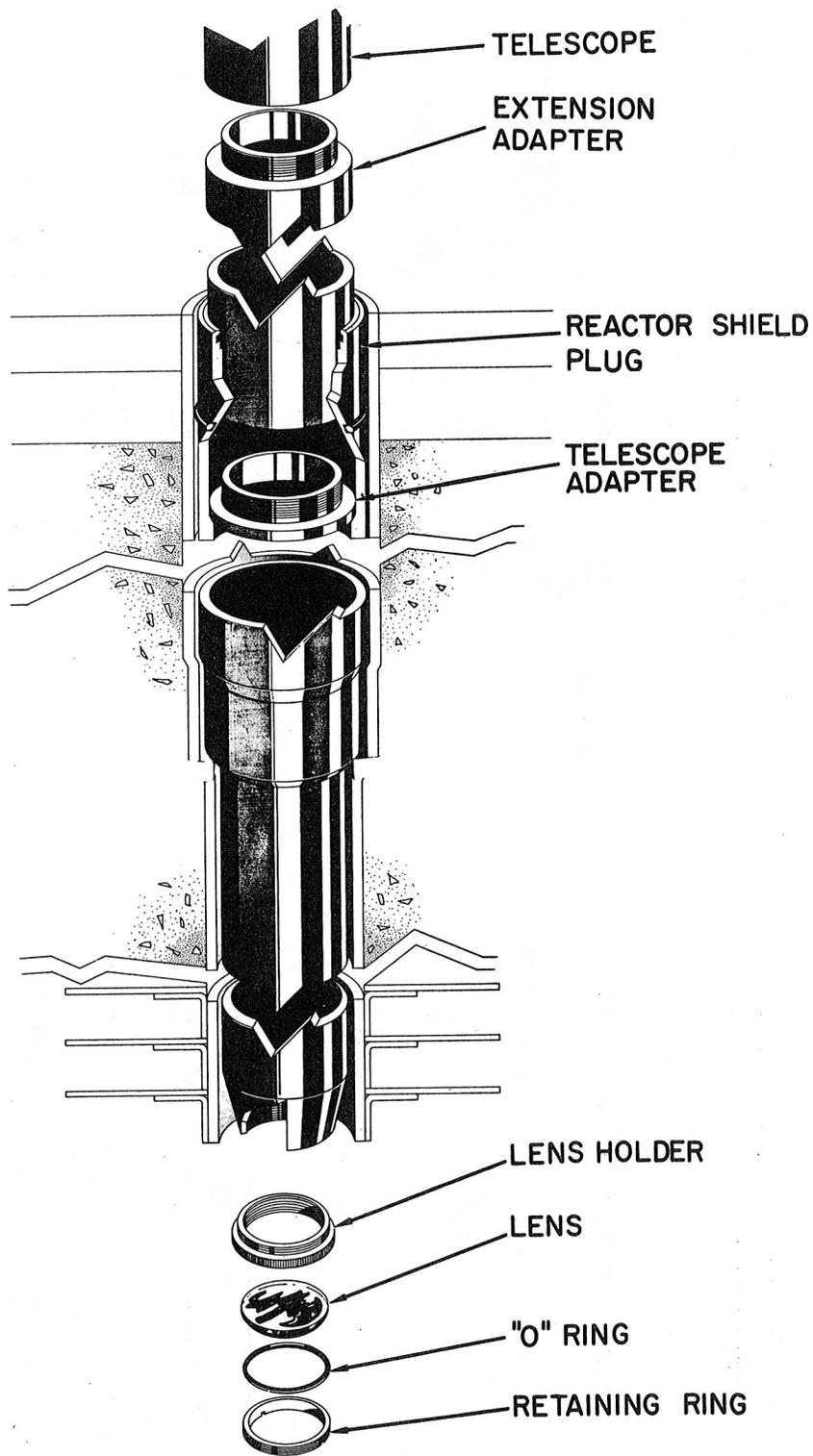


Figure 24. Corescope, Mark II

NAA-SR-6359
54

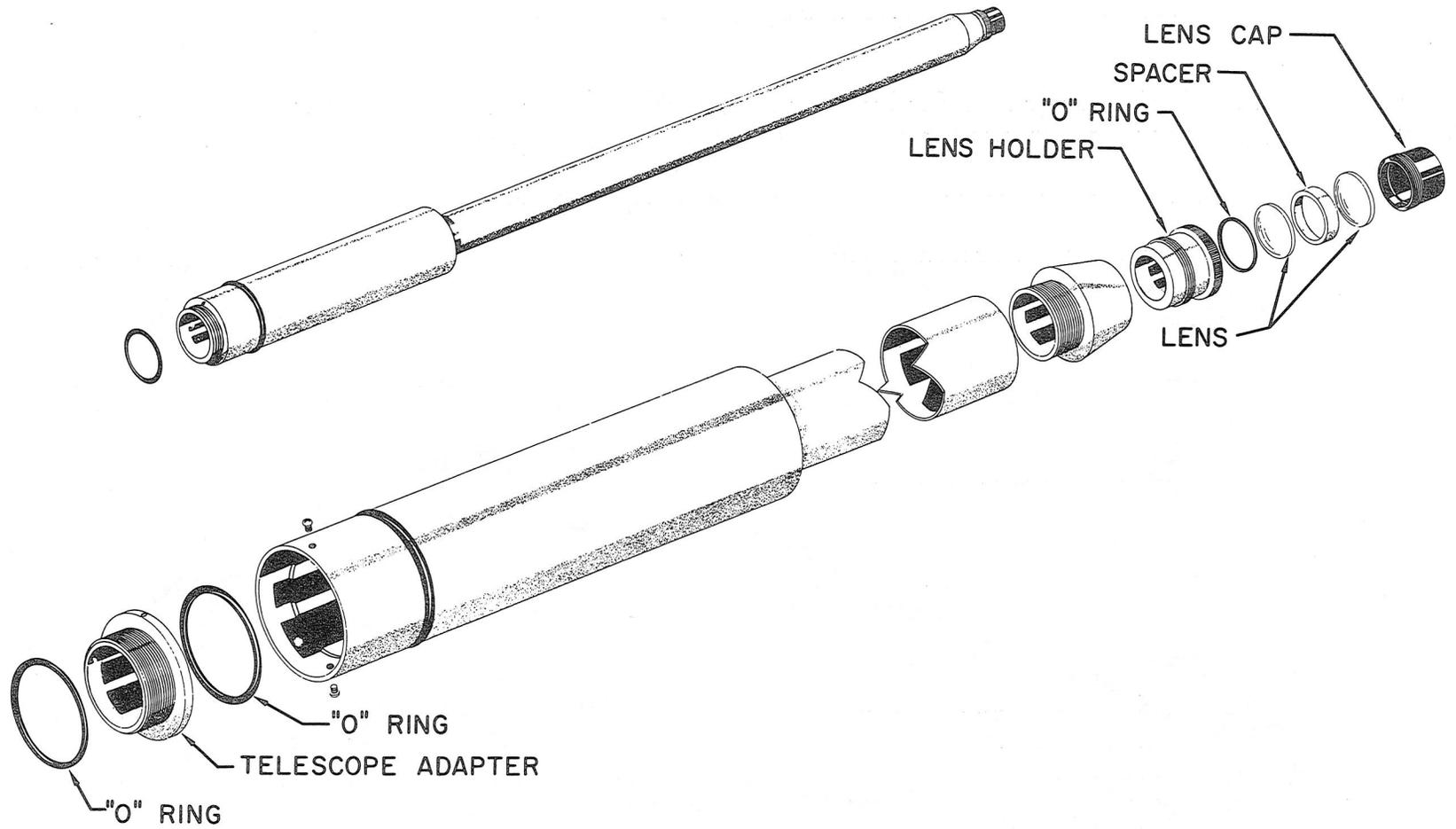


Figure 25. Corescope, Mark III

Figure 25. Corescope, Mark III

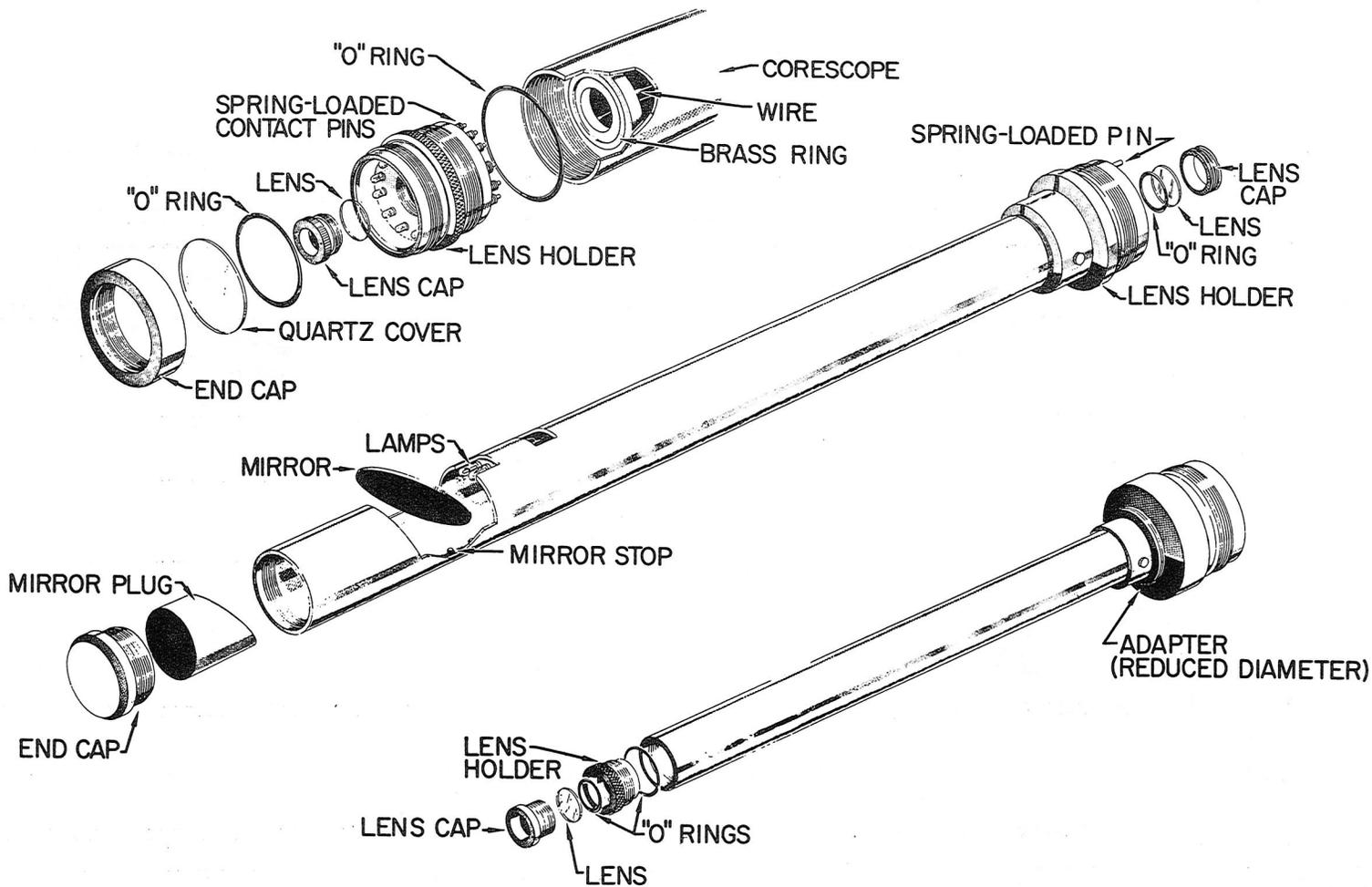


Figure 26. Corescope, Mark IV

NAA-SR-6359
55

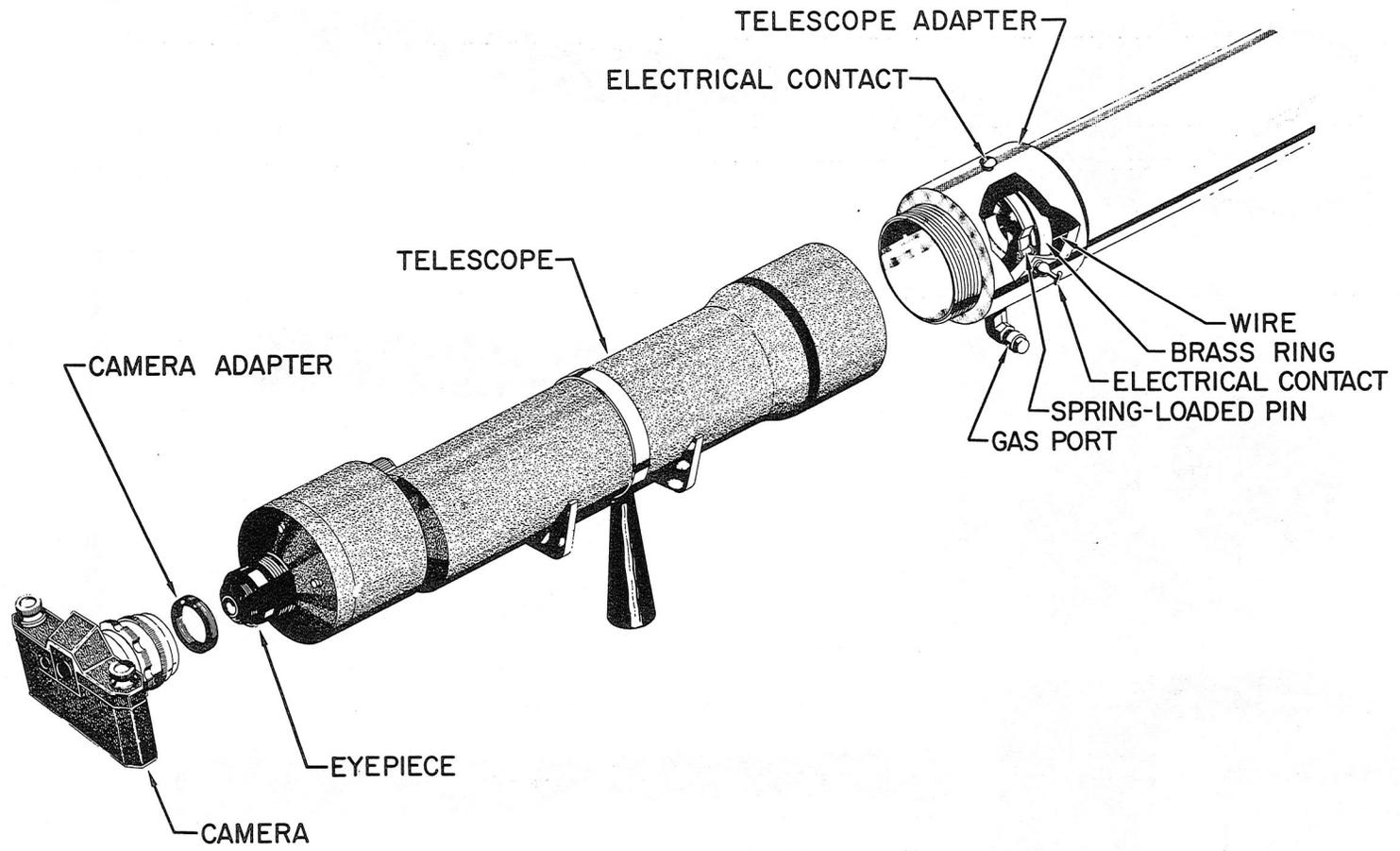


Figure 27. Camera and Corescope, Mark IV

Figure 27. Camera

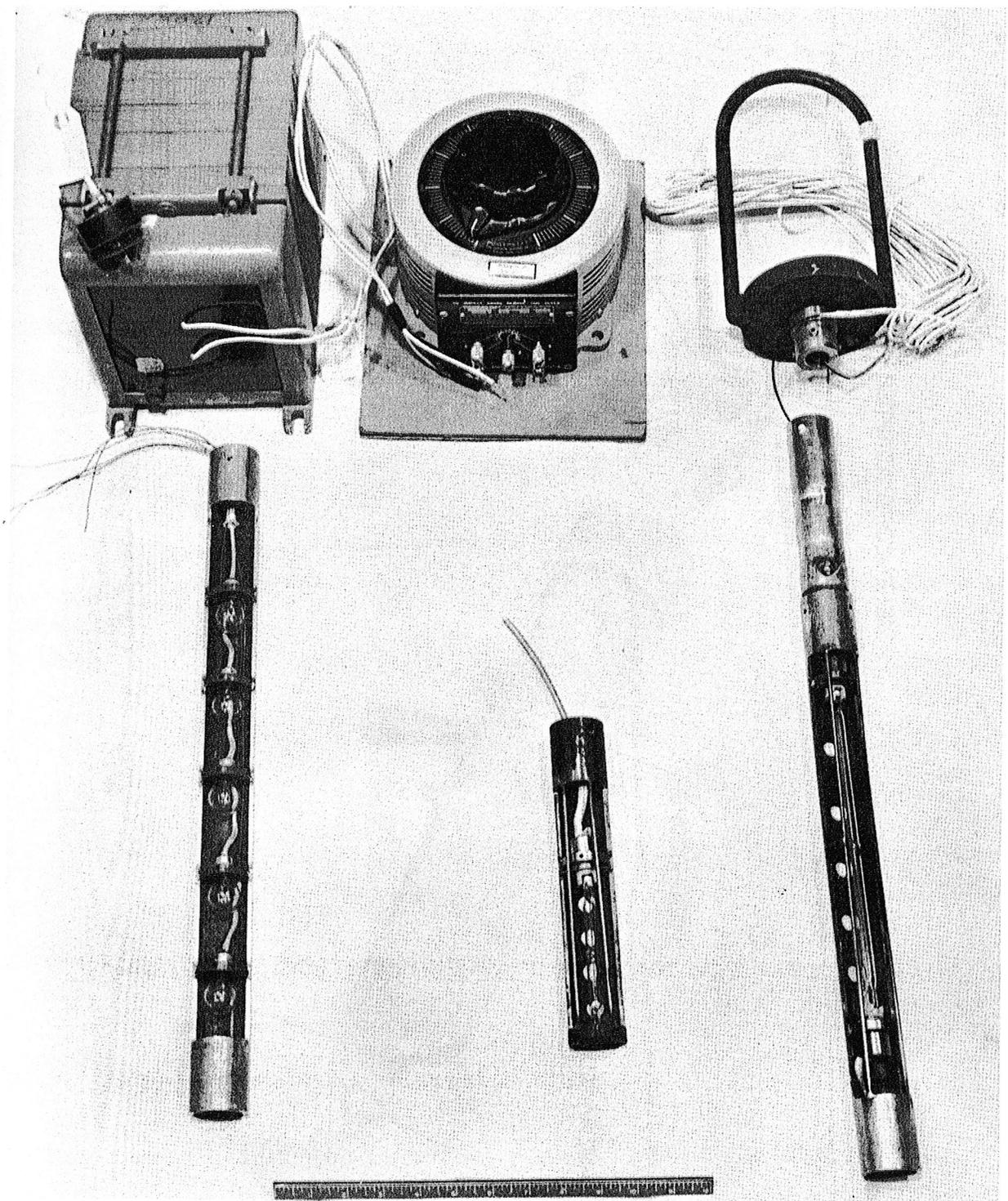


Figure 28. Lights For Illuminating Core

NAA-SR-6359
58

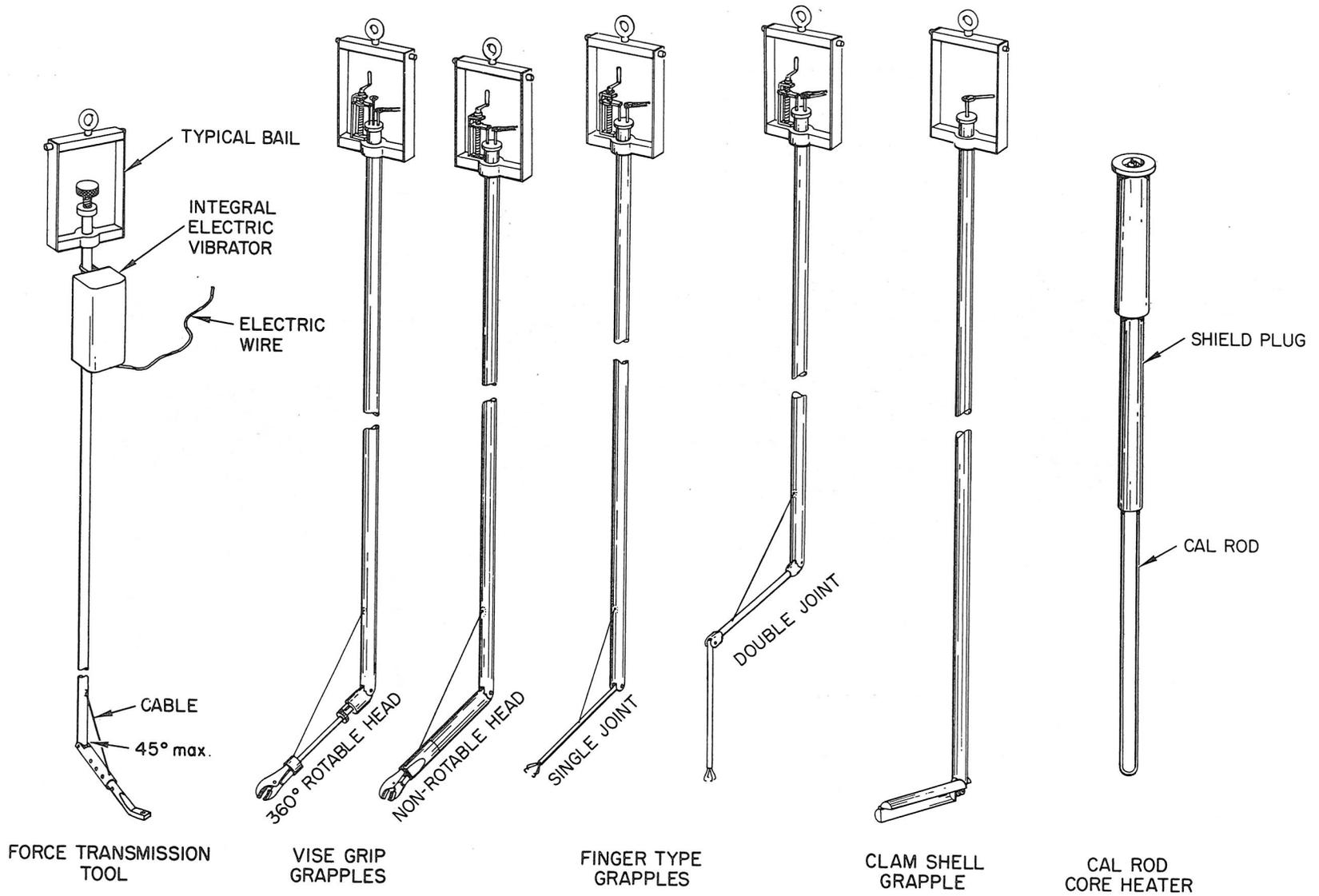


Figure 29. Illustrated Components

CAL ROD
CORE HEATER

CLAM SHELL
GRAPPLE

FINGER TYPE
GRAPPLES

1-NON
4-009
WISE GRIP
GRAPPLES

FORCE TRANSMISSION
TOOL

Figure 29. Illustrated Components

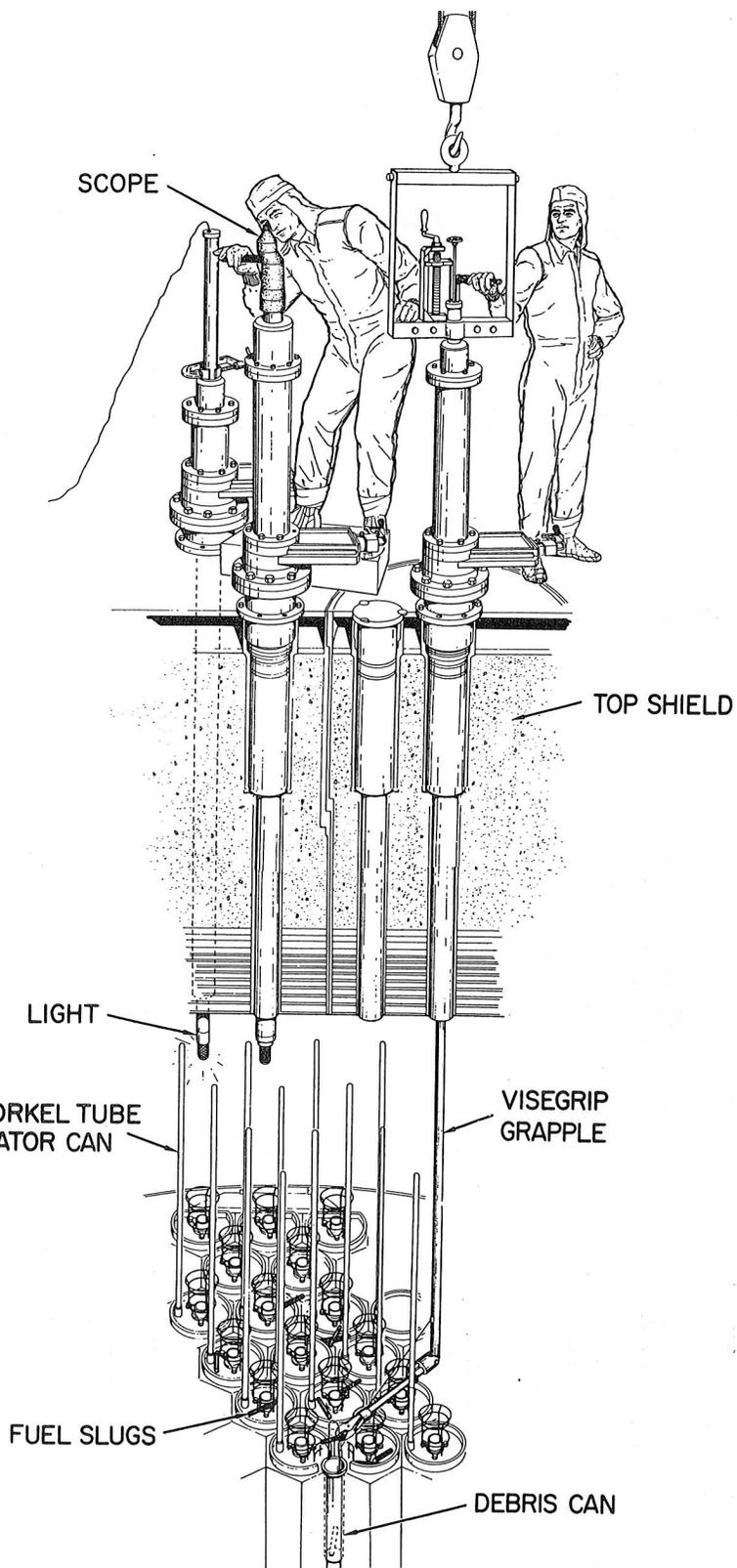


Figure 30. Grappling for Fuel Slugs, Etc. on Top of Core

NAA-SR-6359
60

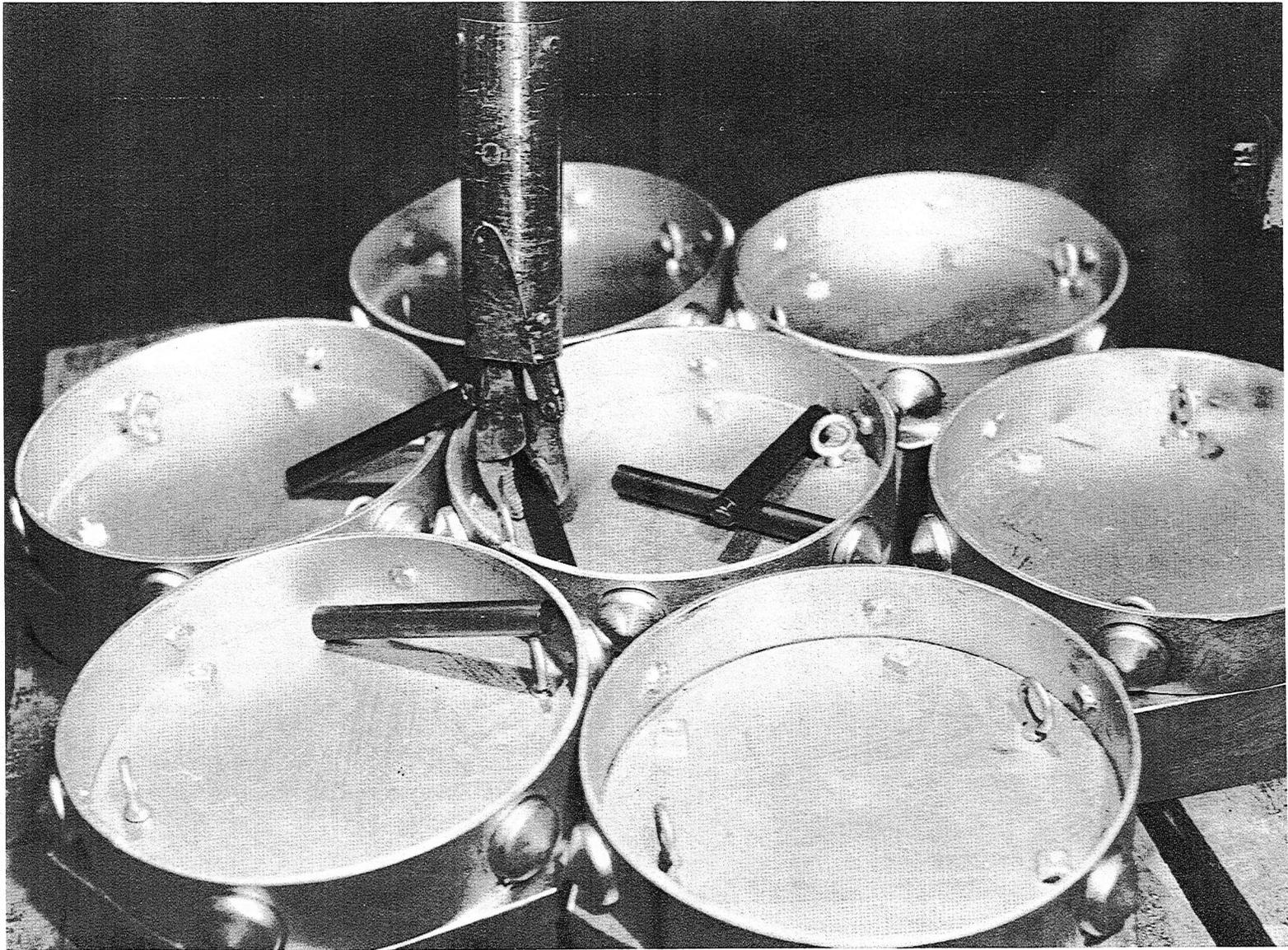


Figure 31. Testing Vise Grip Grapple Head



Figure 31. Testing Vise Grip Grapple Head

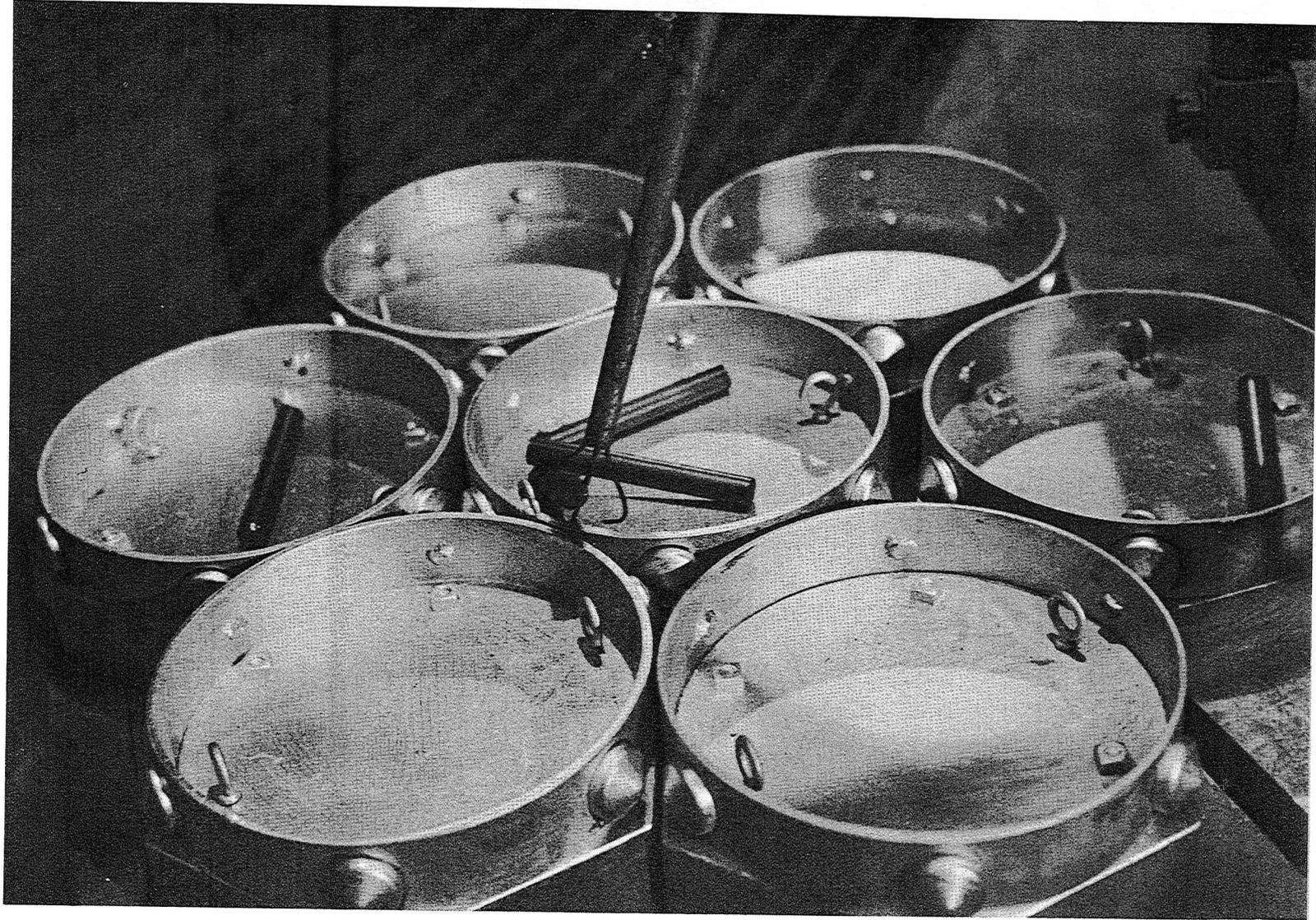


Figure 32. Testing Wire Fingers Grapple Head

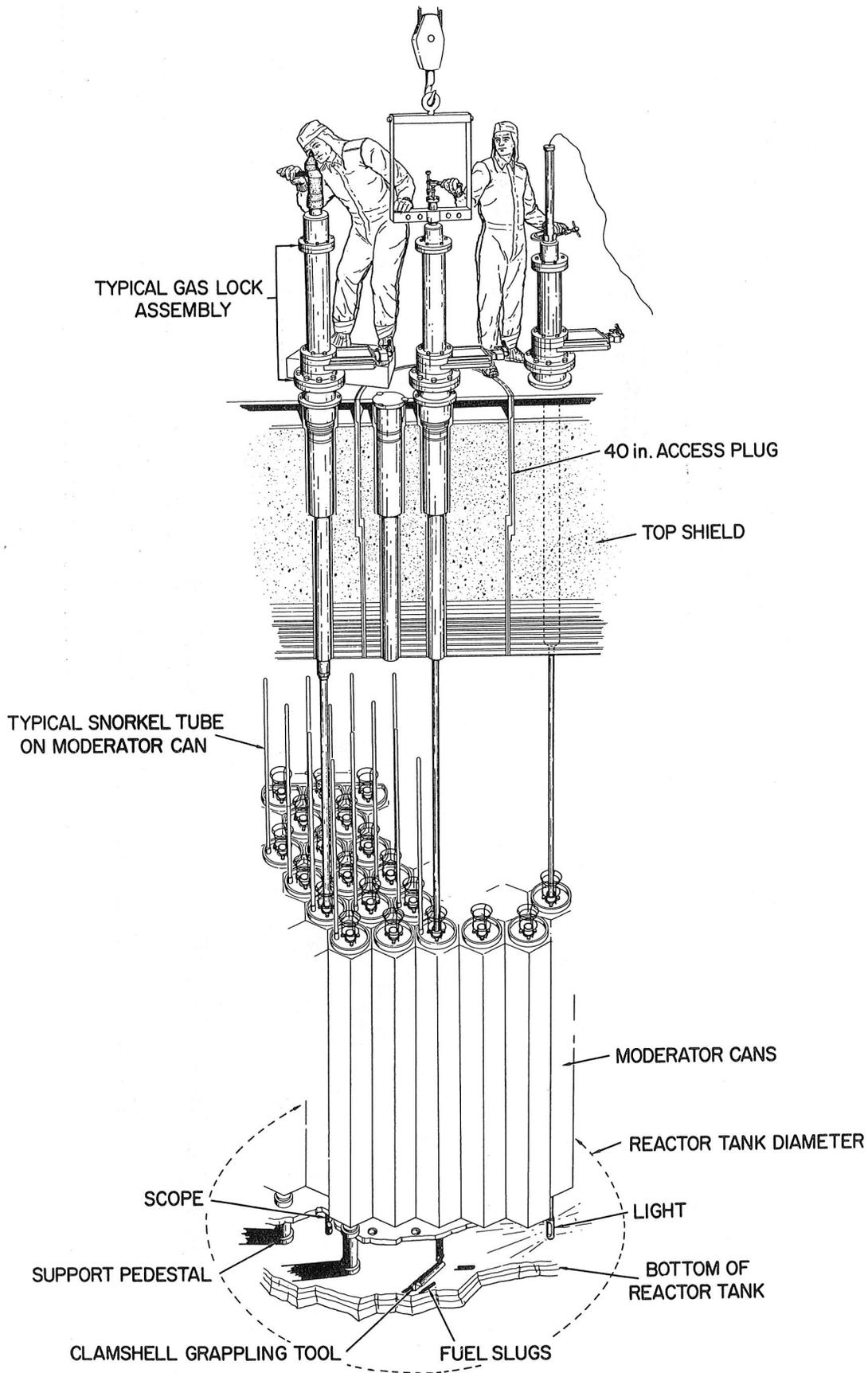


Figure 33. Grappling For Fuel Slugs Beneath the Core

NAA-SR-6359

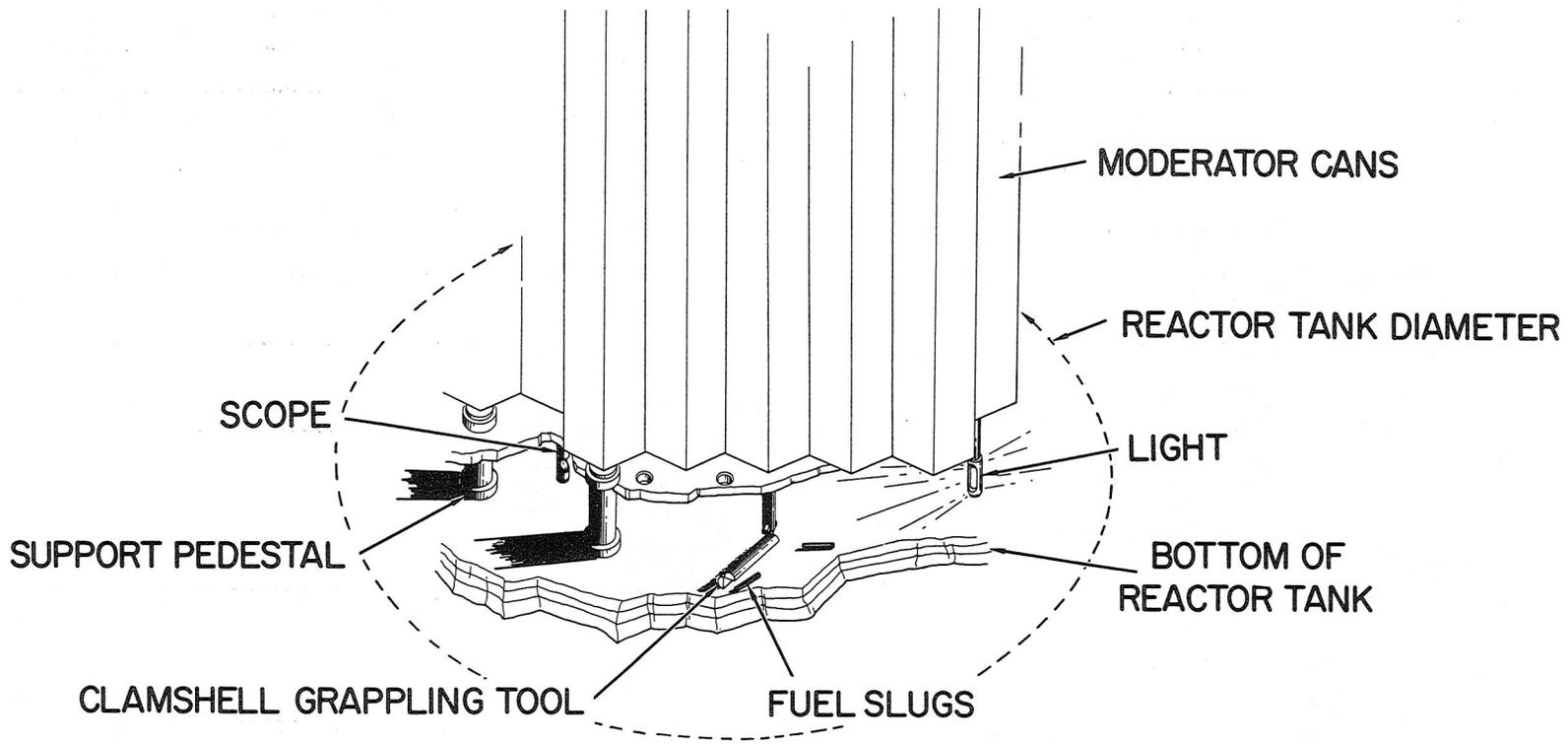


Figure 34. Grappling For Fuel Slugs Beneath the Core, Lower View

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63

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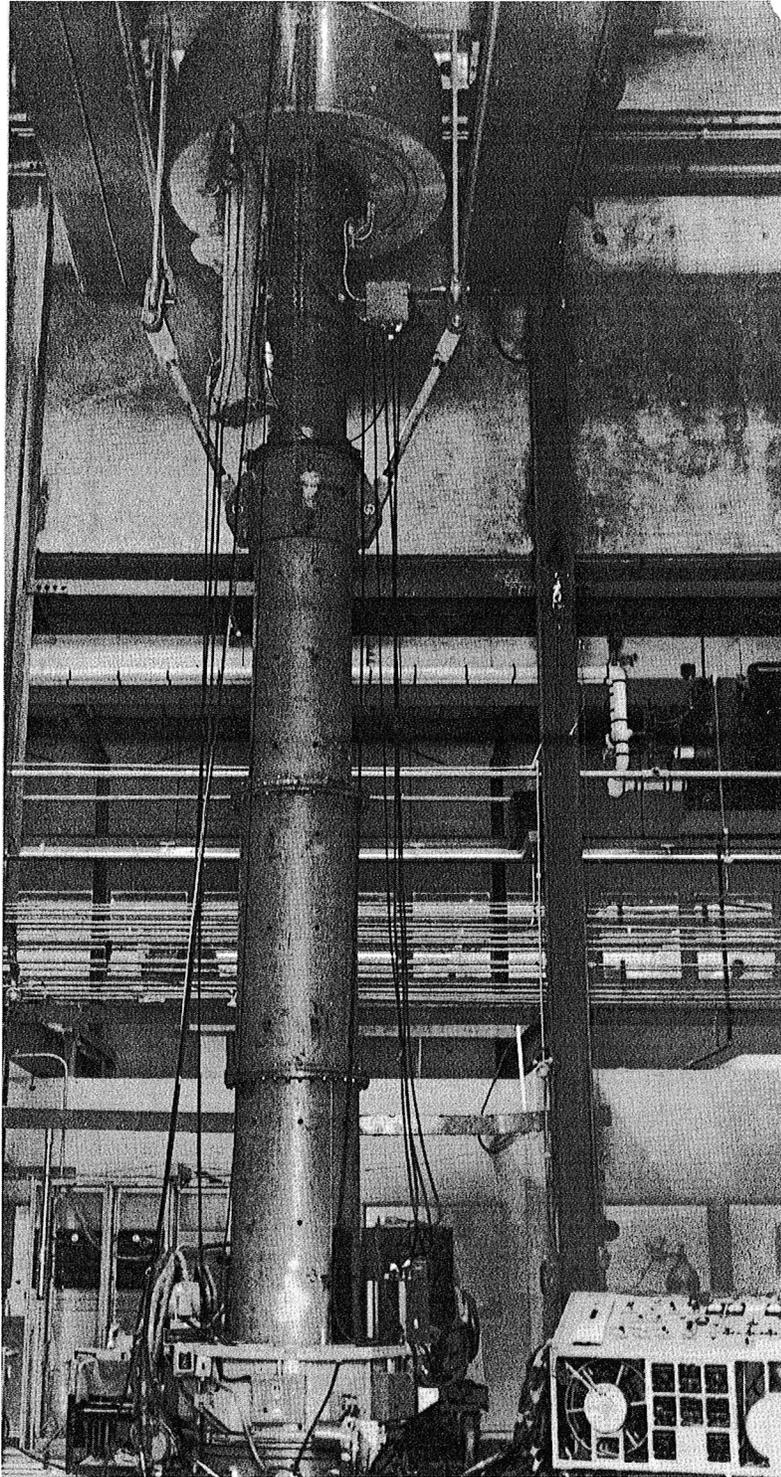


Figure 35. Fuel Handling Machine, Mark II

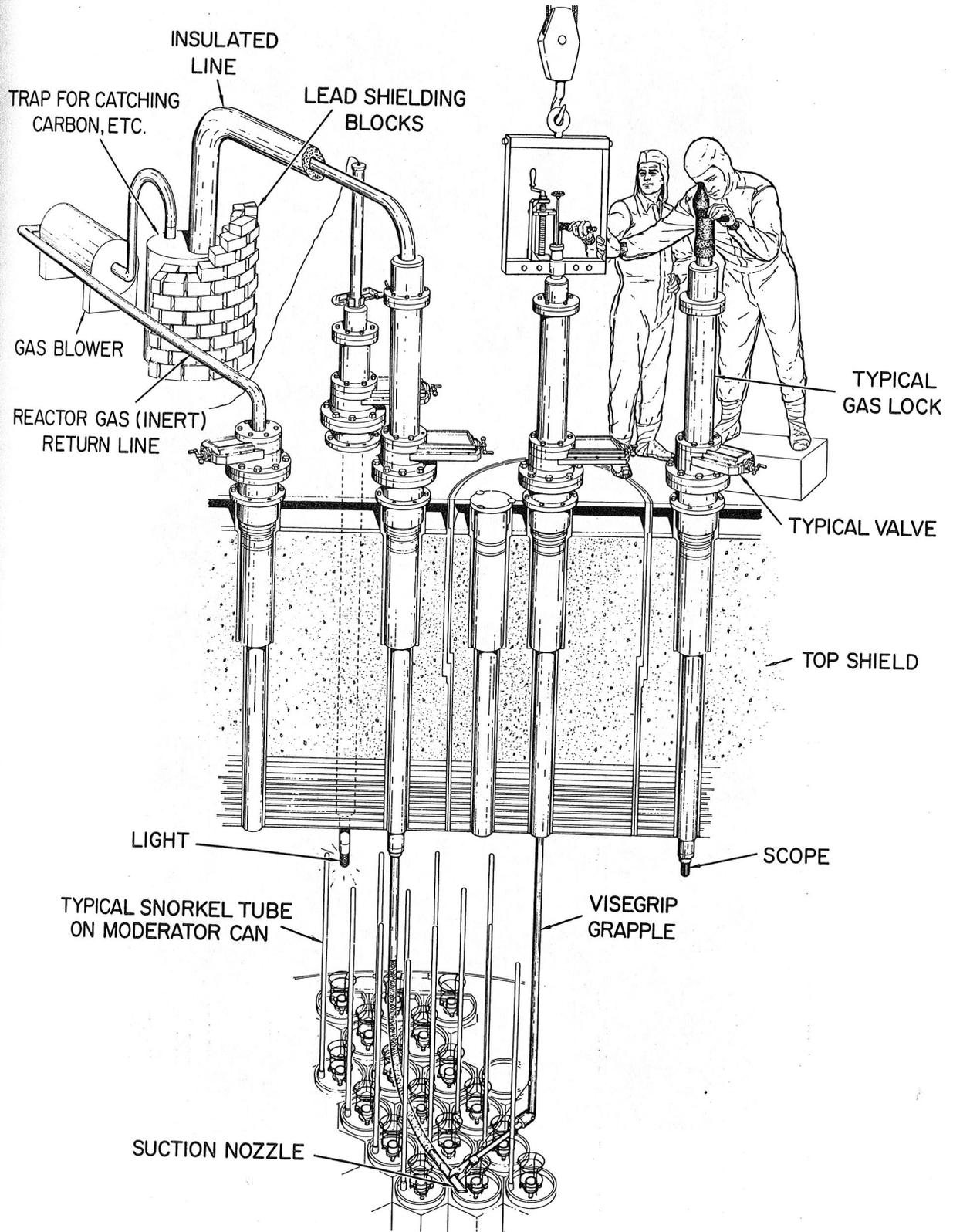


Figure 36. Vacuum Cleaning Top of Reactor Core

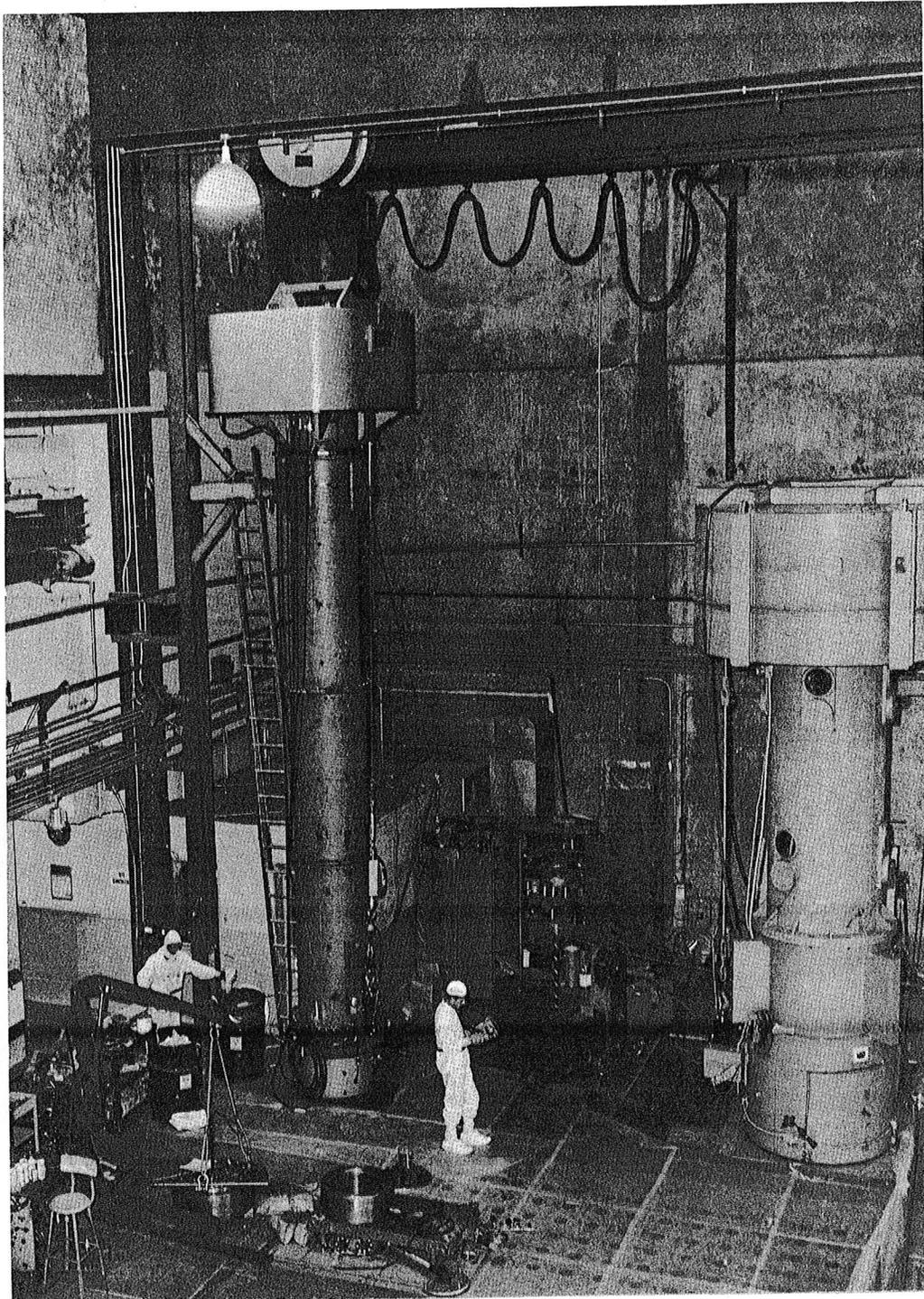


Figure 37. SRE Reactor Room, West Side

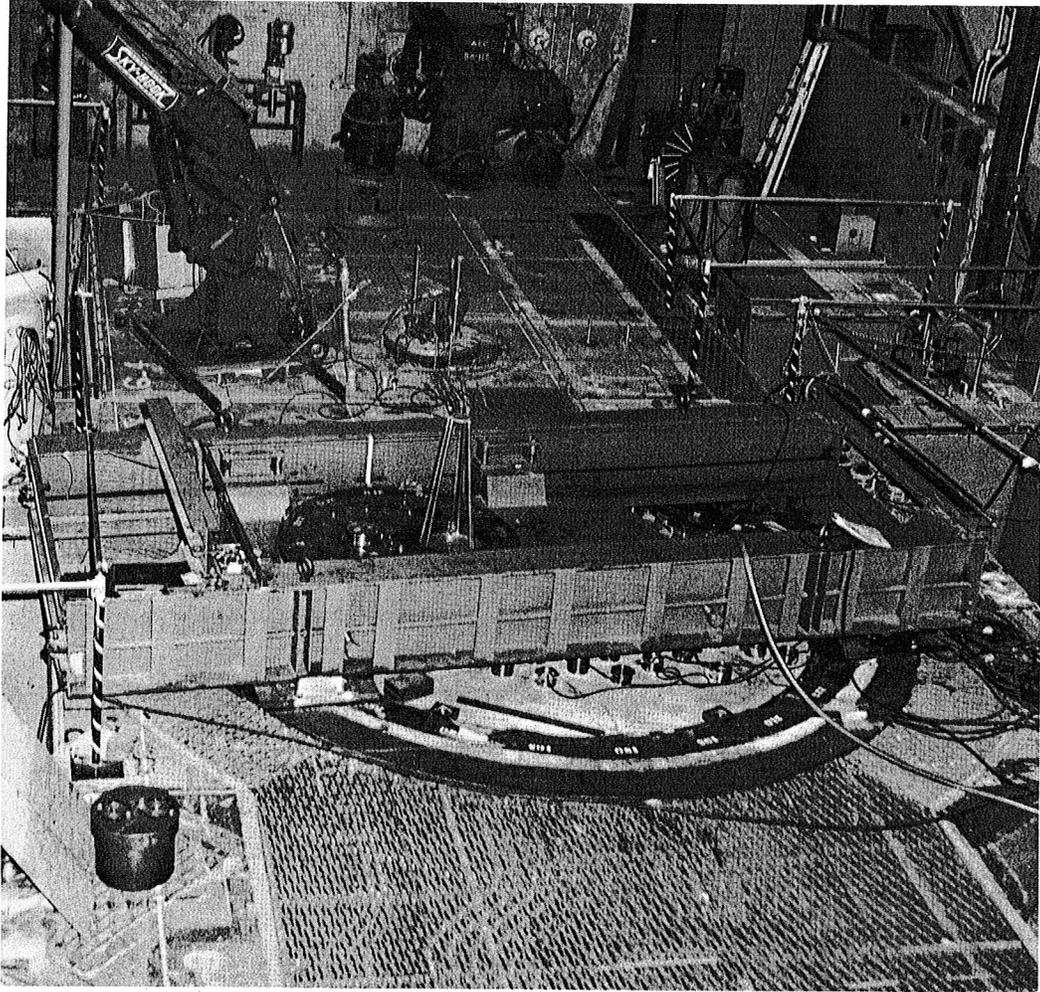


Figure 38. SRE Reactor Room, East Side

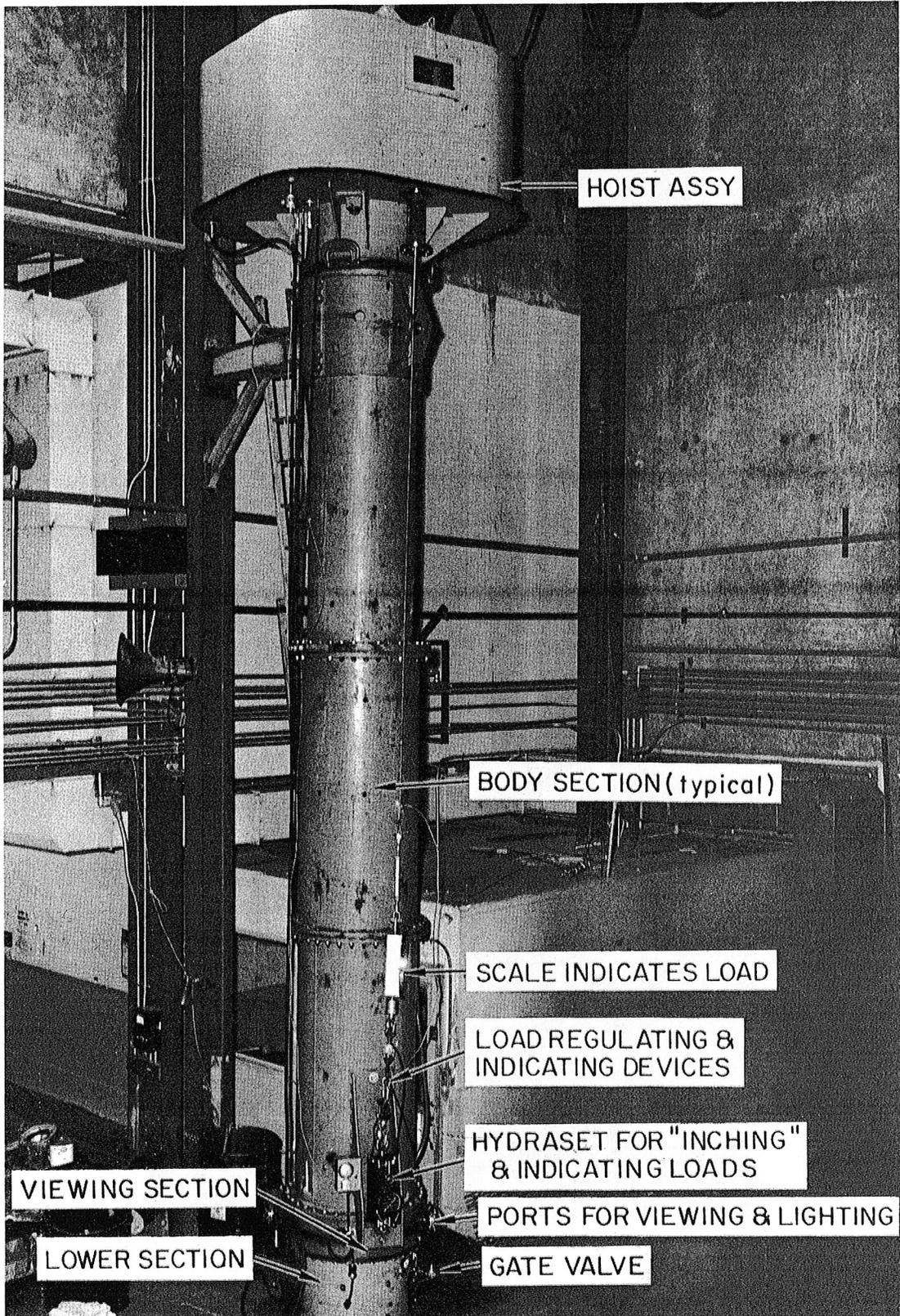


Figure 39. Moderator Handling Cask on Storage Pad

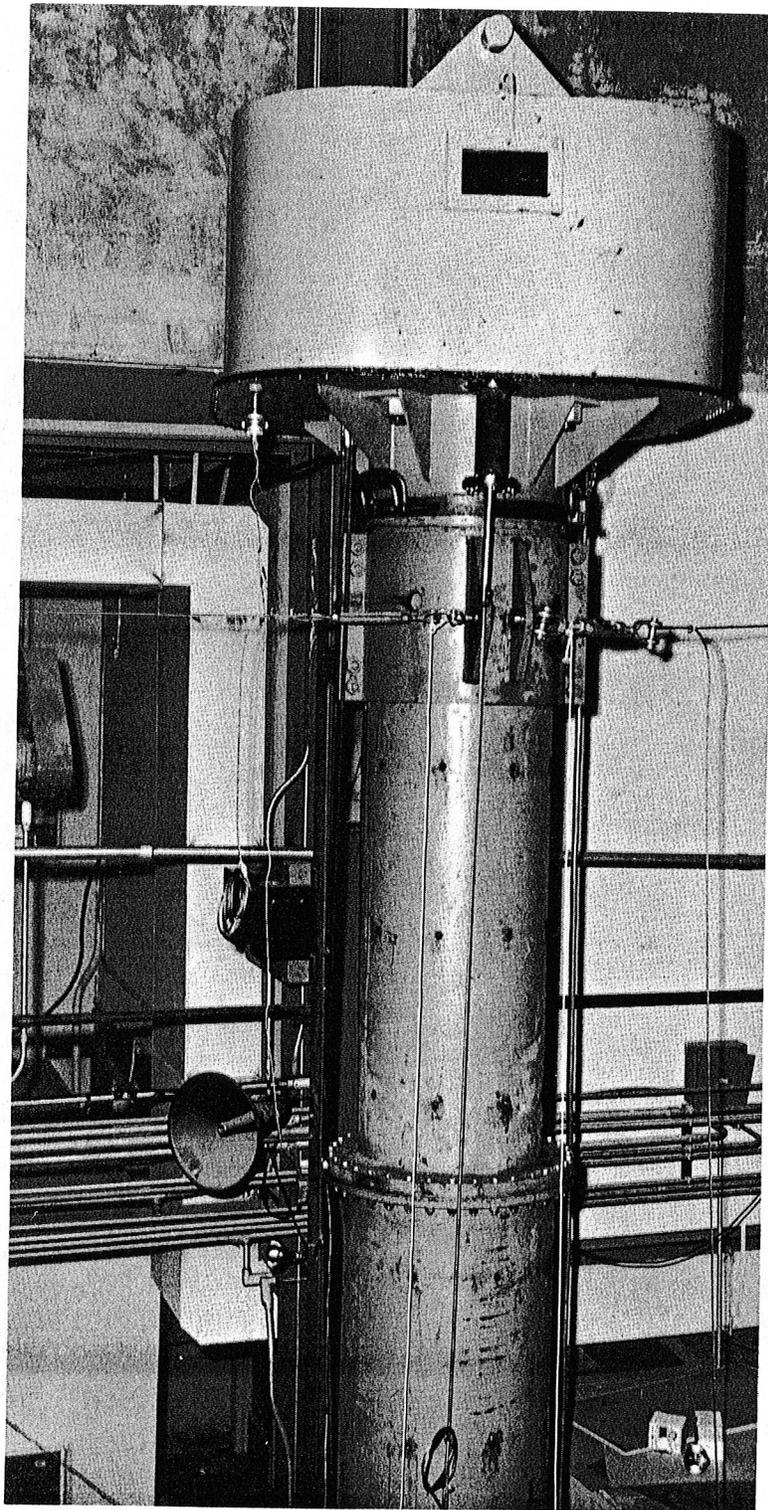


Figure 40. Moderator Handling Cask on Storage Pad, Upper View

NAA-SR-6359

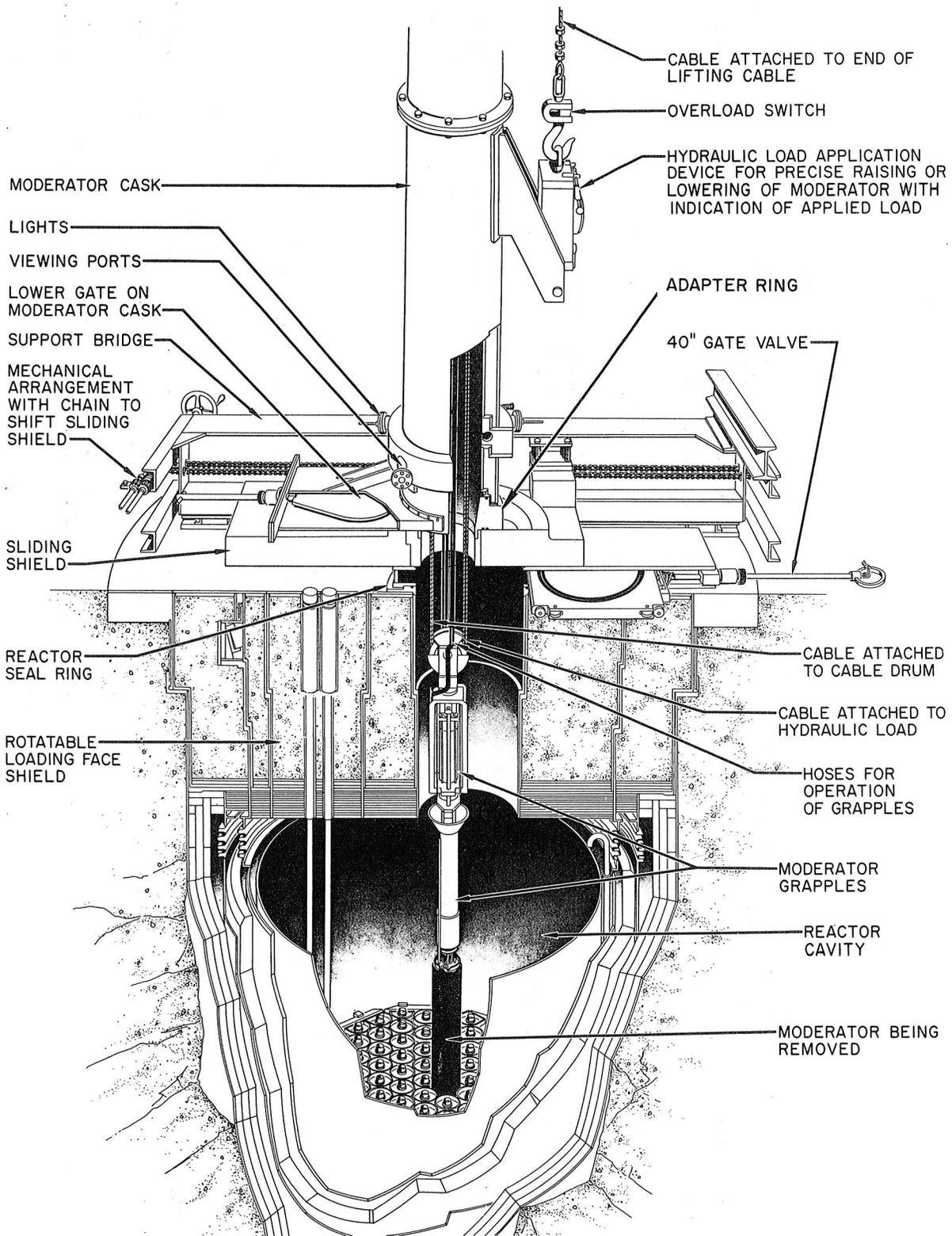


Figure 41. Removing Moderator Can From Reactor

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AND APPLICATION
PRECISE RAISING OR
MODERATOR WITH
APPLIED LOAD

G

VE

CABLE ATTACHED
TO CABLE DRUM

CABLE ATTACHED TO
HYDRAULIC LOAD

HOSES FOR
OPERATION
OF GRAPPLES

MODERATOR
GRAPPLES

REACTOR
CAVITY

MODERATOR BEING
REMOVED

tor

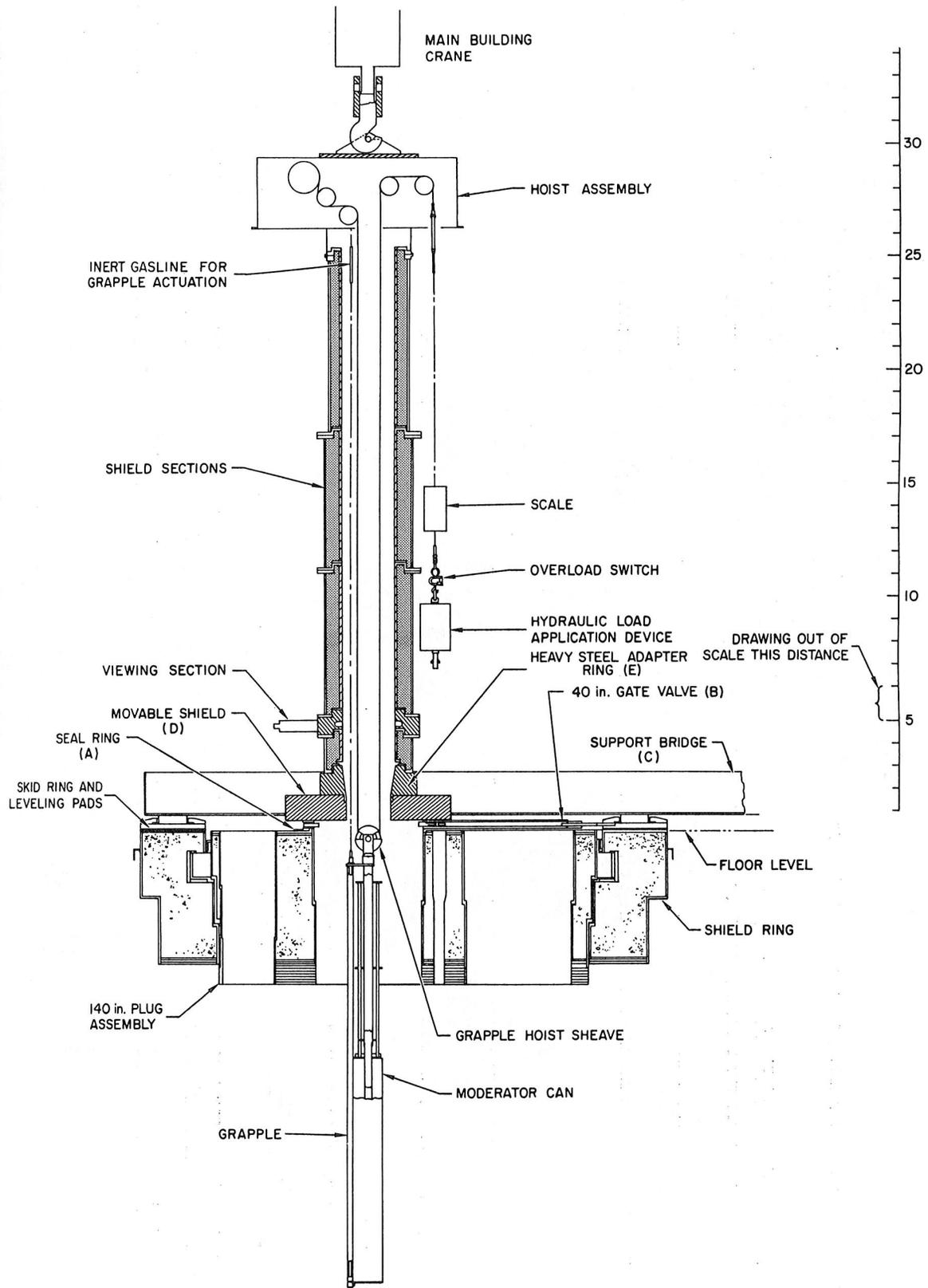


Figure 42. Moderator Removal Operation

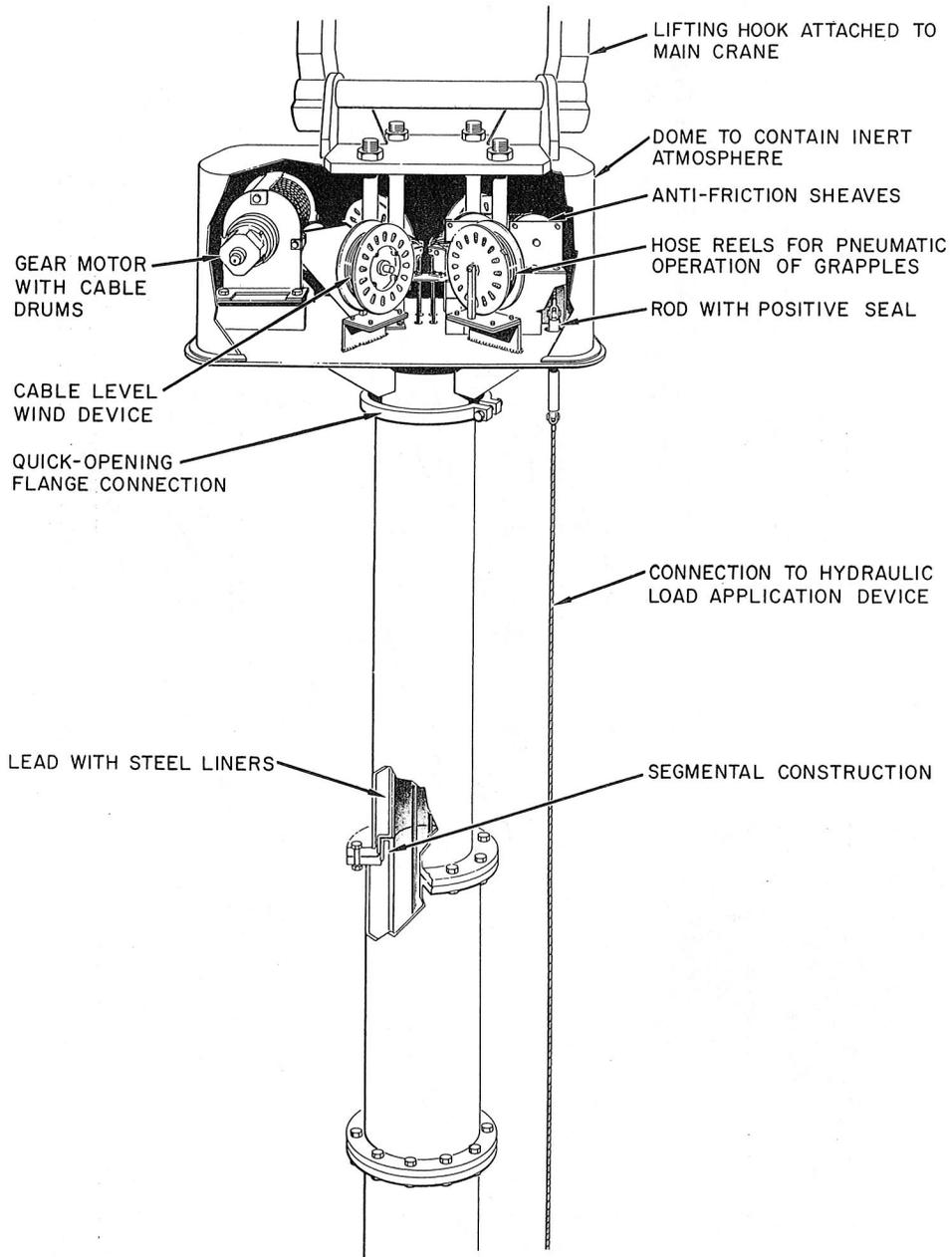
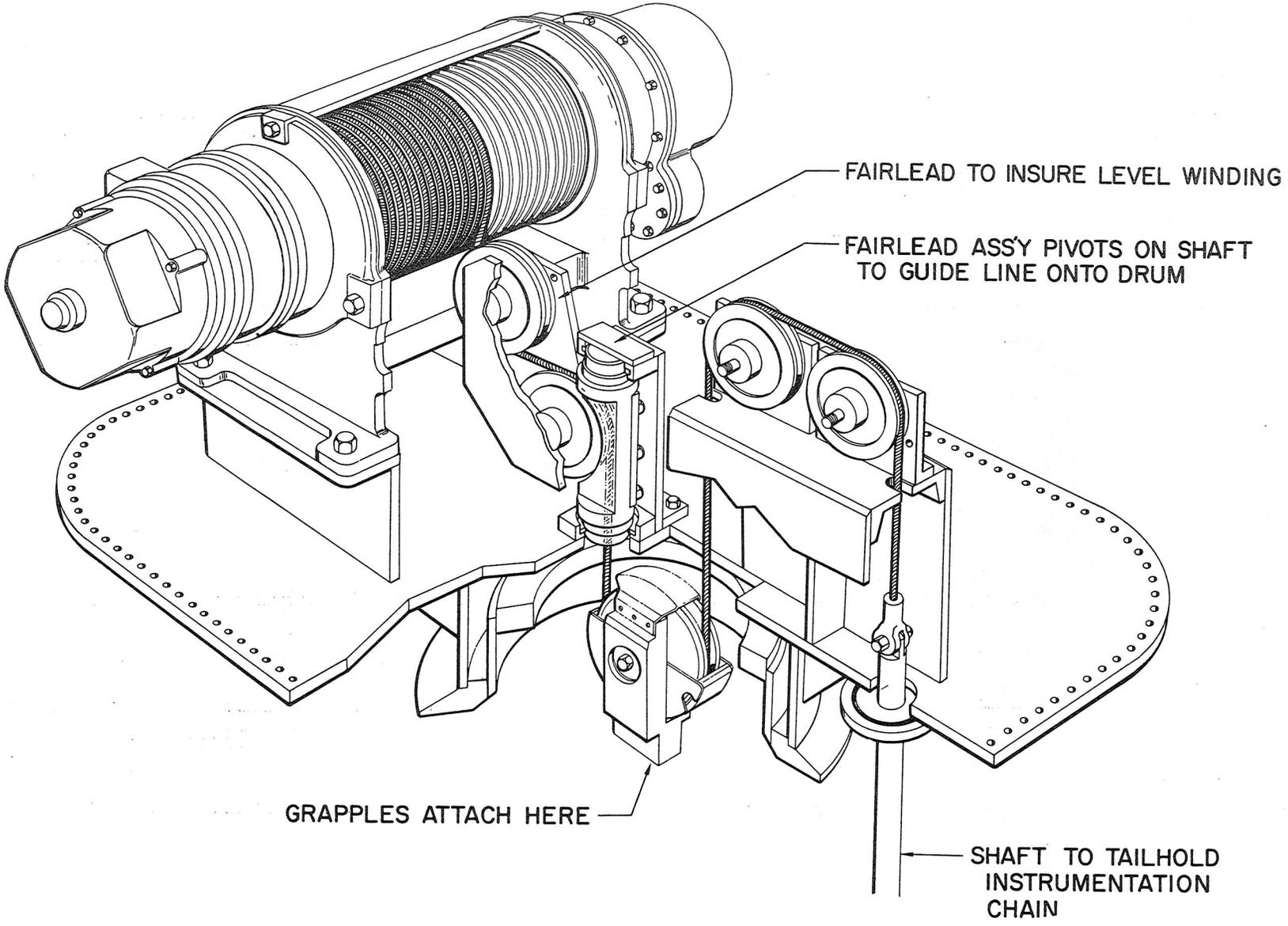


Figure 43. Moderator Handling Cask, Upper Section

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CABLE ASSEMBLY



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73

Figure 44. Moderator Handling Cask Hoist Section

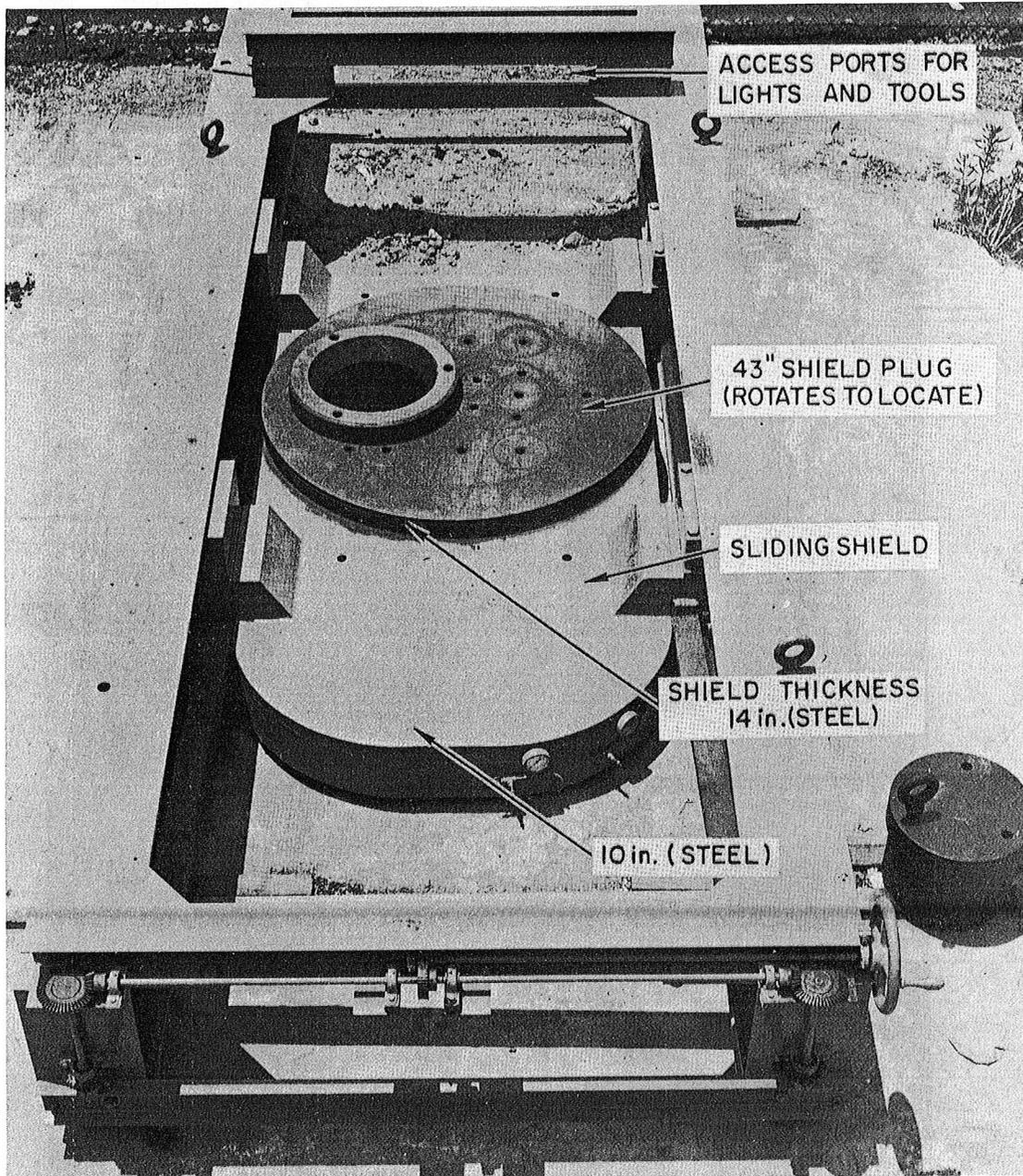


Figure 45. Support Bridge and Sliding Shield

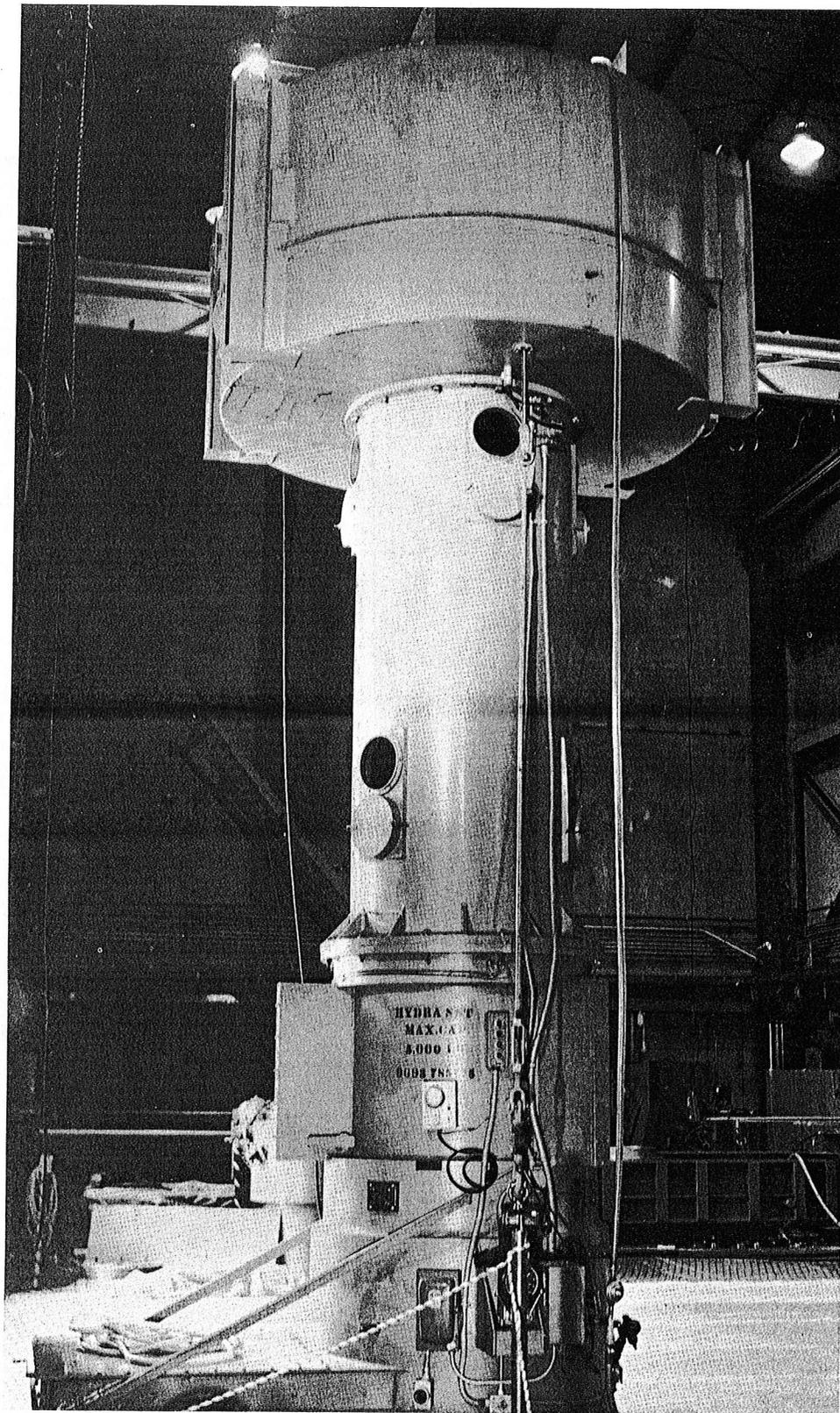
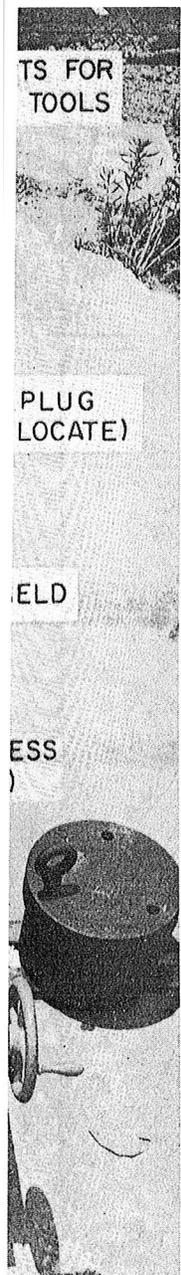


Figure 46. Plug and Pump Cask

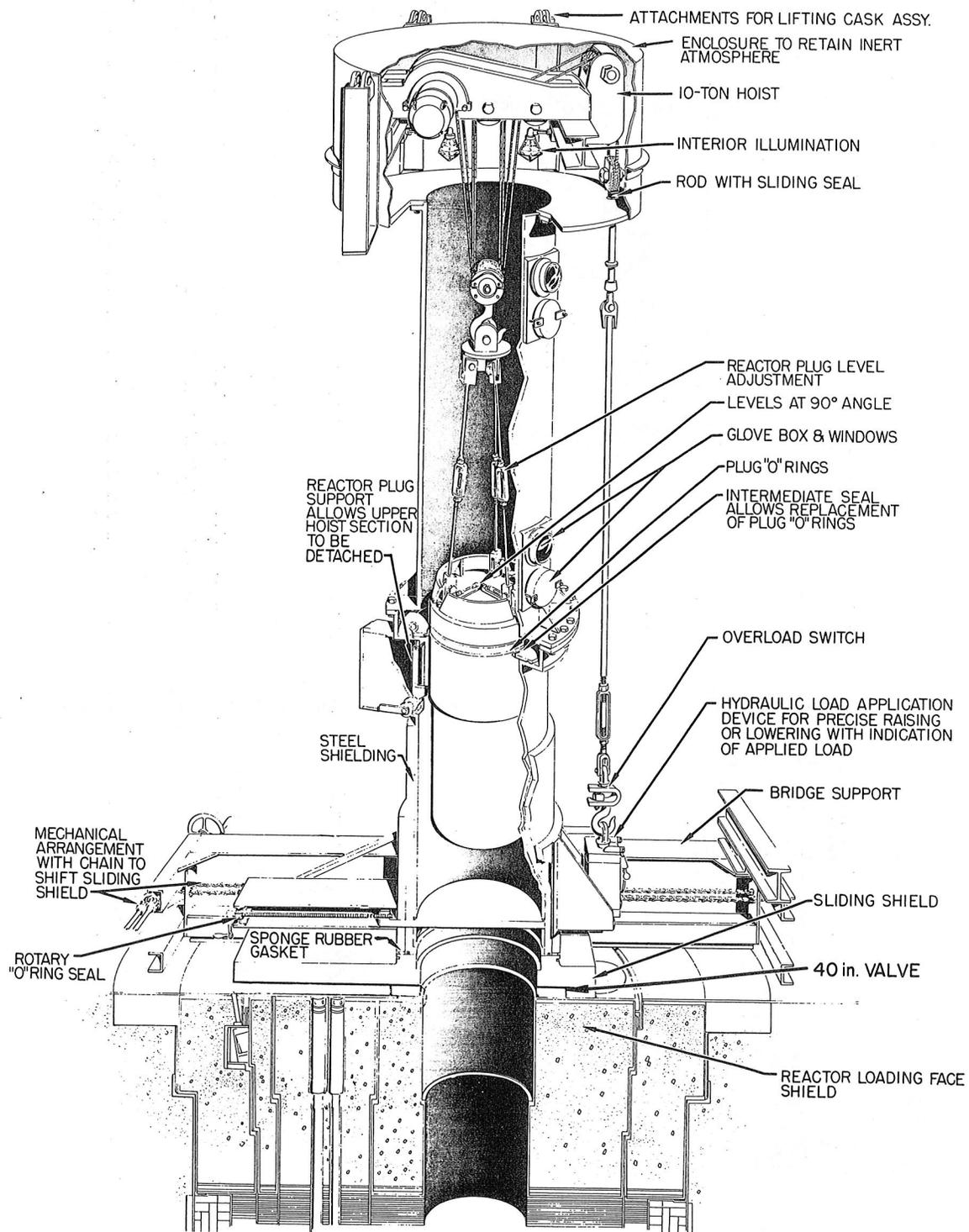


Figure 47. Removing a 40-in. Access Plug

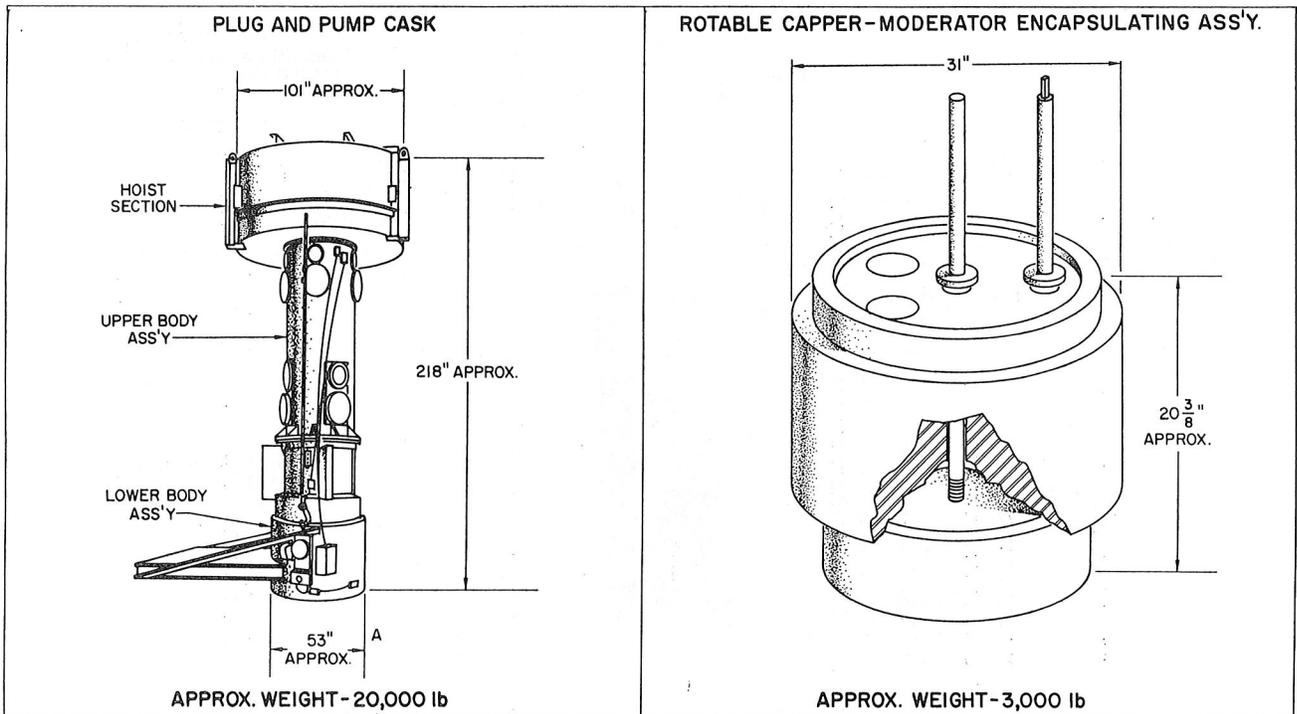
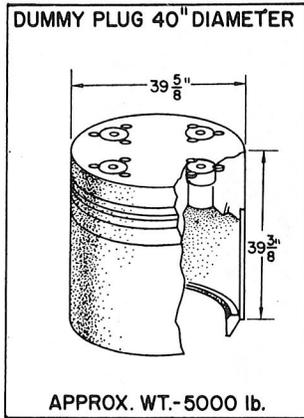


Figure 48. Illustrated Components

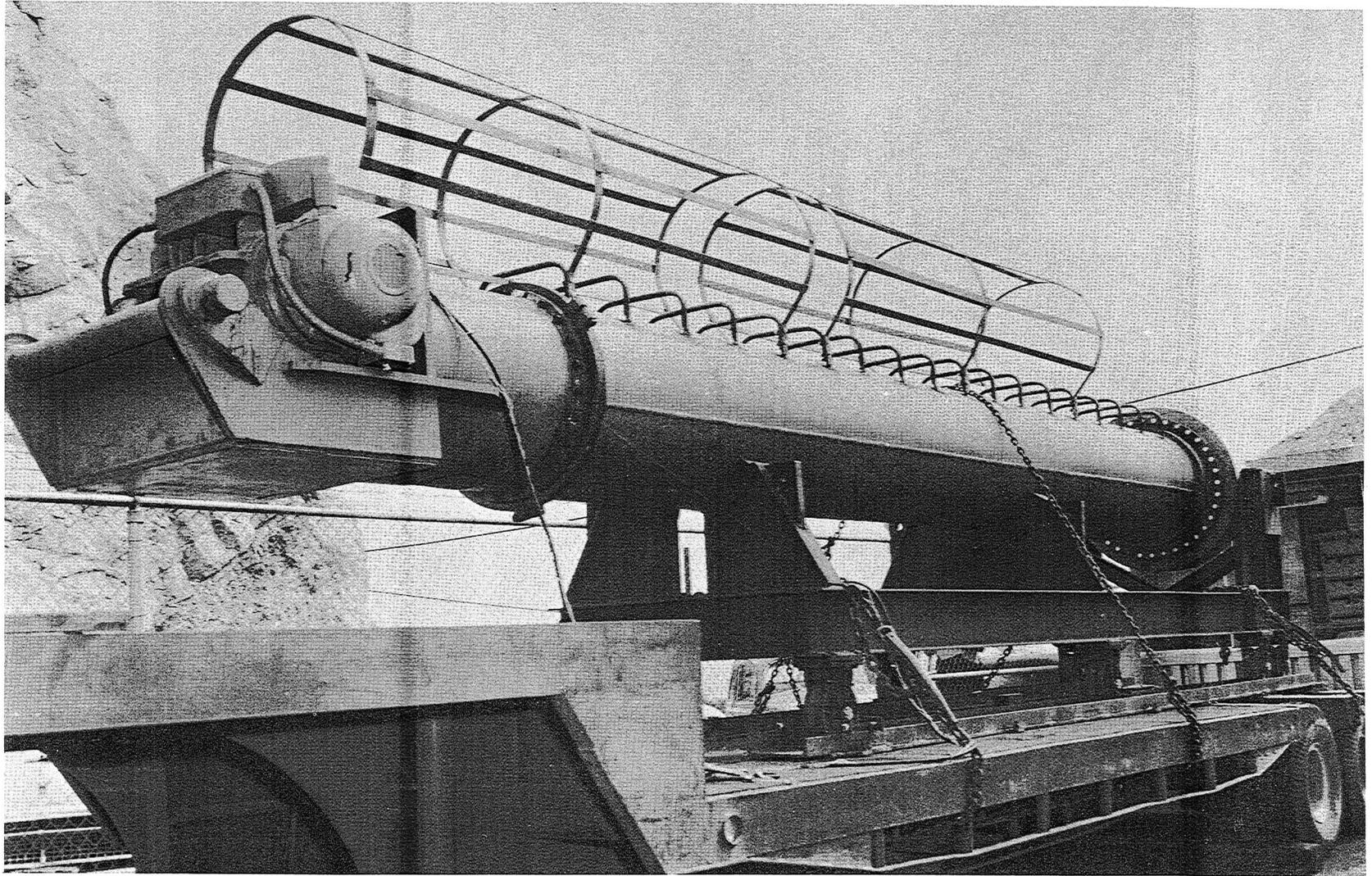


Figure 49. Moderator Transport Cask

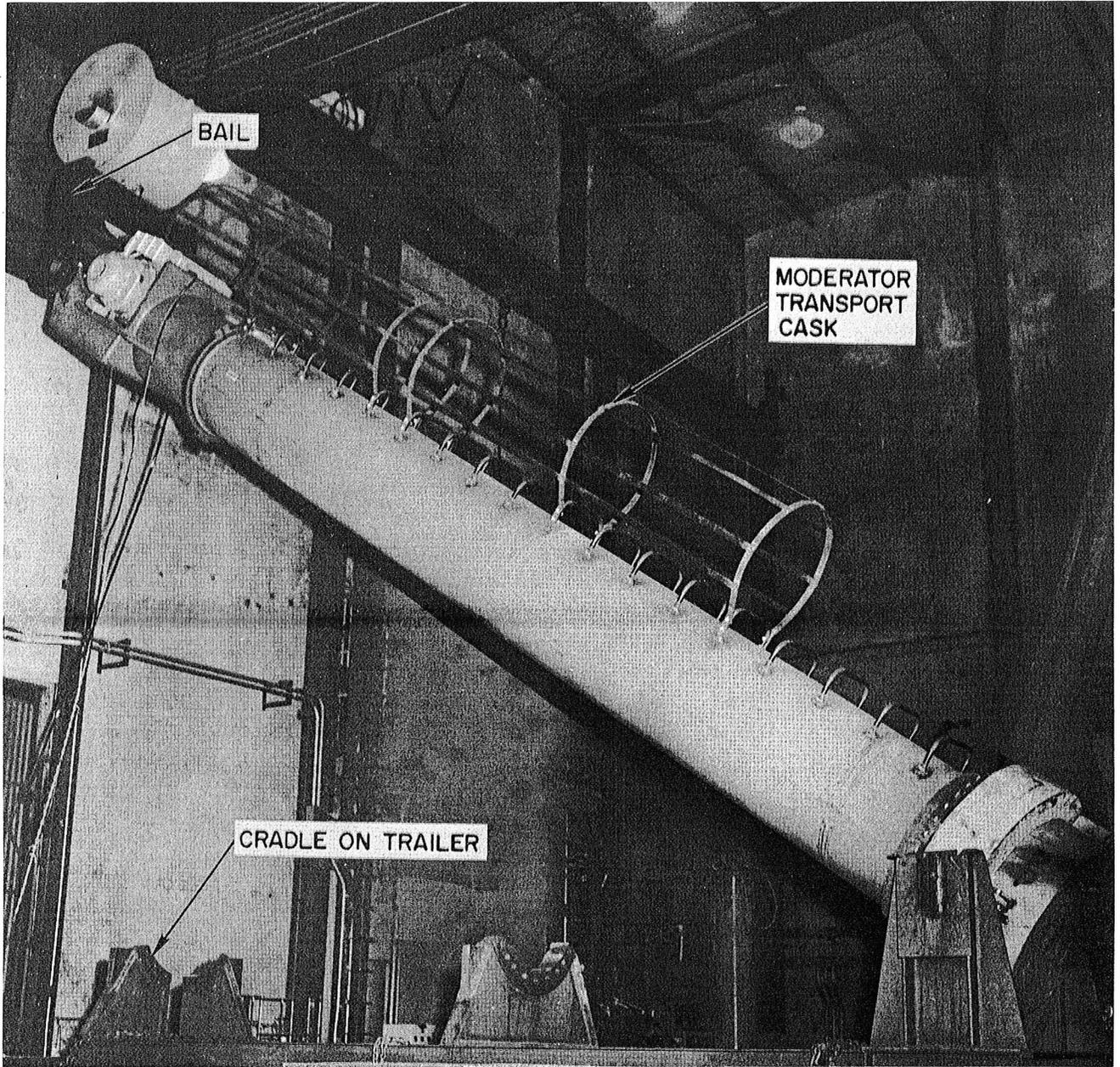


Figure 50. Moderator Transport Cask in SRE Building

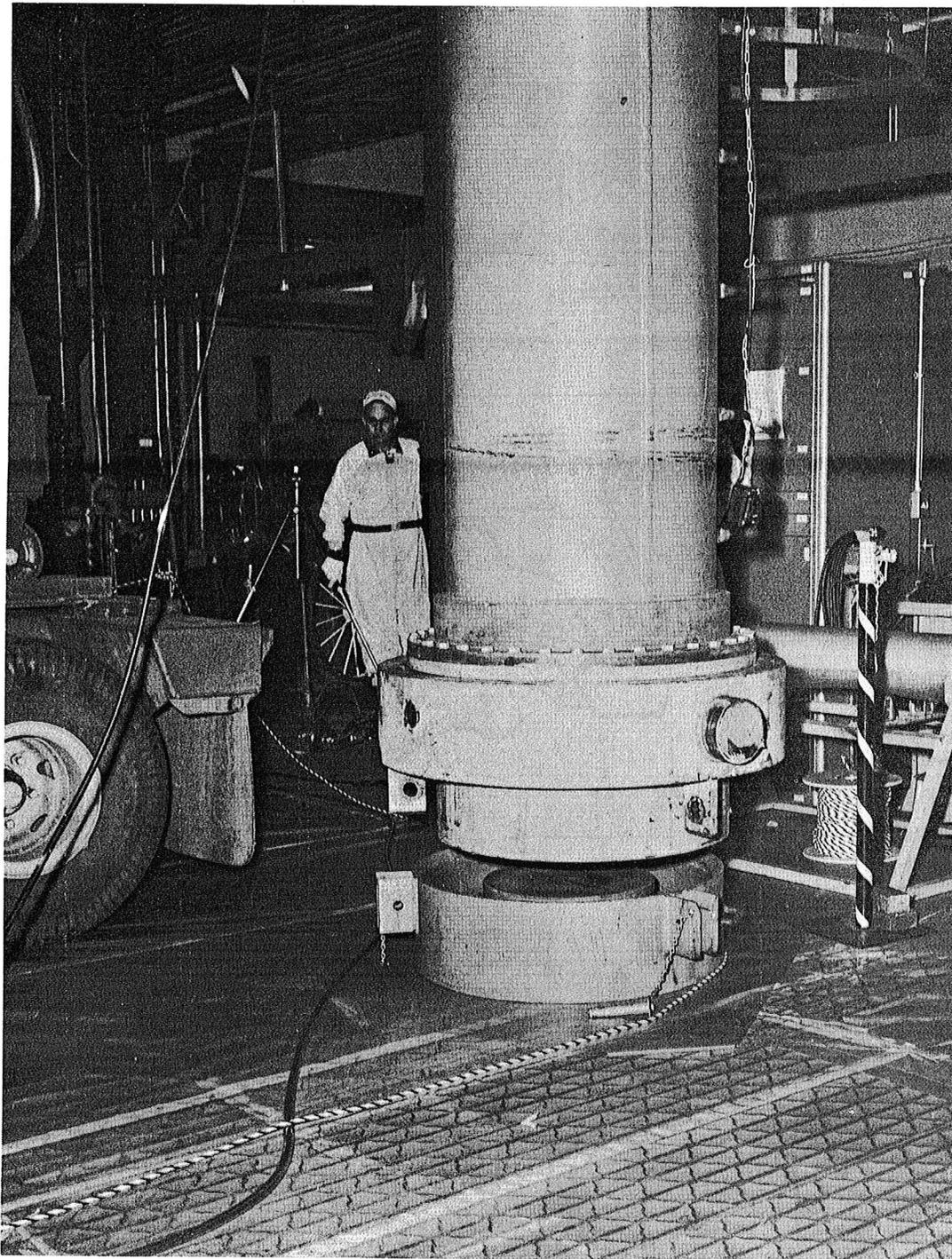
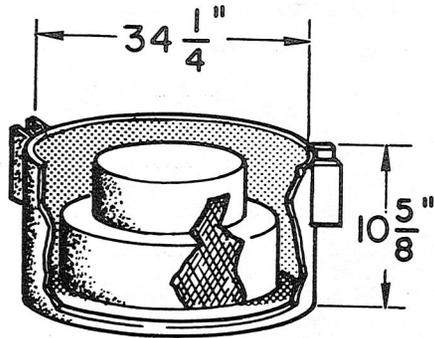


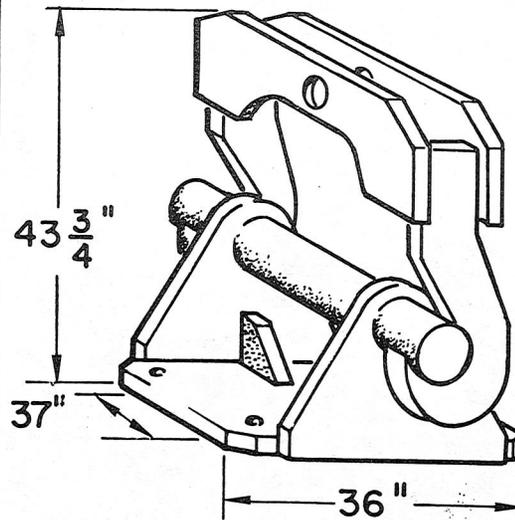
Figure 51. Moderator Transport Cask Positioned Over Bottom Shield Cap

LOWER SHIELDING
PLUG ASSY -
MODERATOR TRANS -
PORT CASK



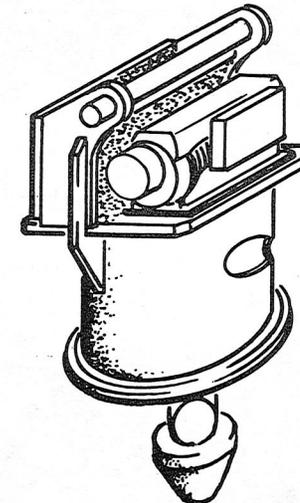
1,700 lb

BAIL LIFTING ASSEMBLY
FOR CASKS



1,500 lb

HOIST ASSY - SINGLE
SINGLE HOOK GRAPPLE
MODERATOR TRANS -
PORT CASK



SINGLE HOIST
OPEN TO ATMOSPHERE
HOIST CAP 1 1/2 TON
5,500 lb

Figure 52. Illustrated Components

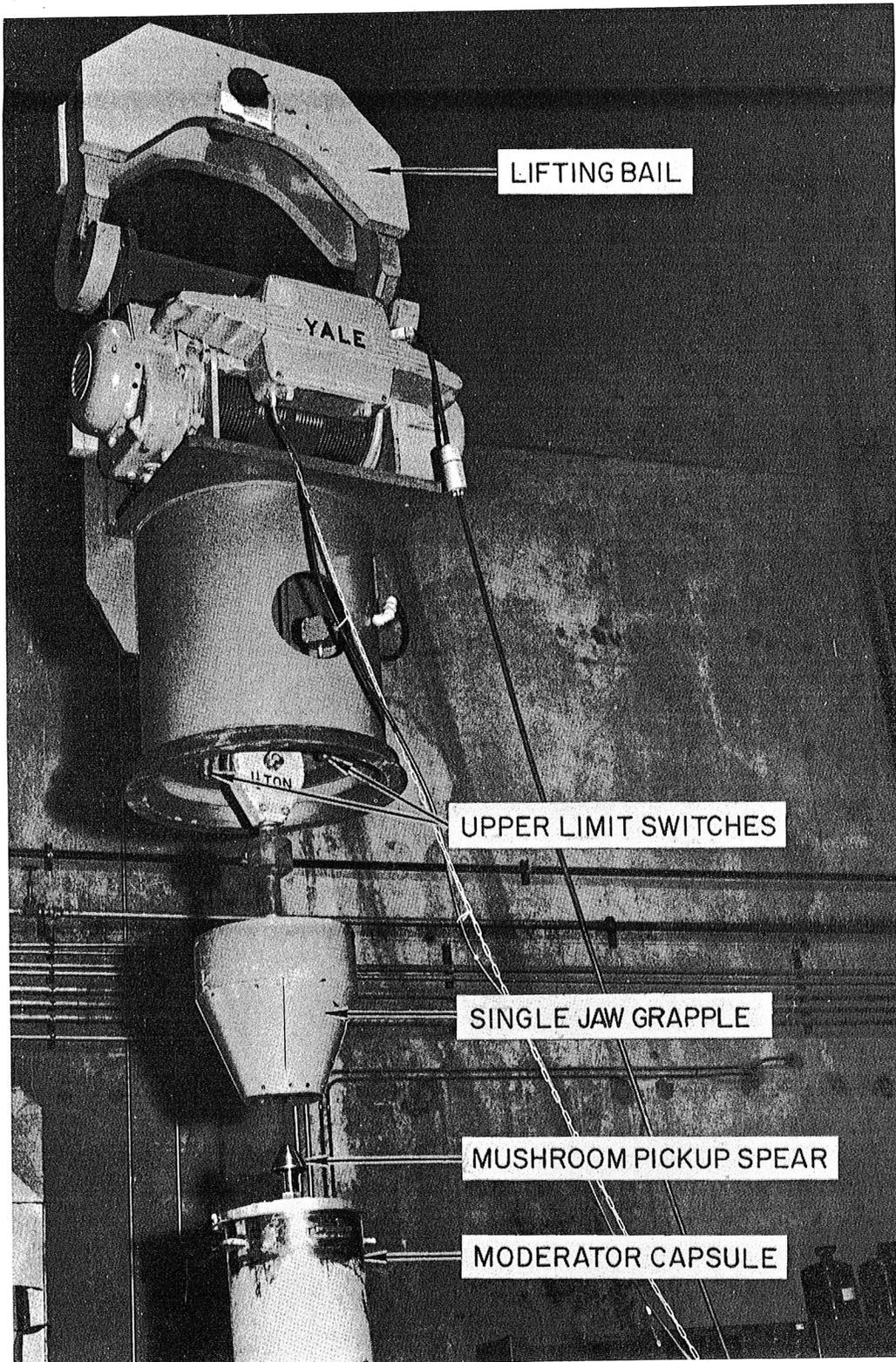
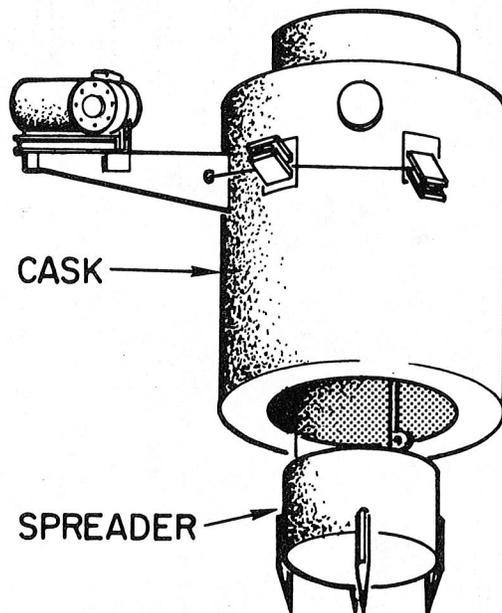


Figure 53. Hoist and Grapple Checkout-Moderator Transport Cask



EFFECTIVE SHIELD
6 in.-Pb
5,000 lb

Figure 54. Moderator Spreader Cask Assembly

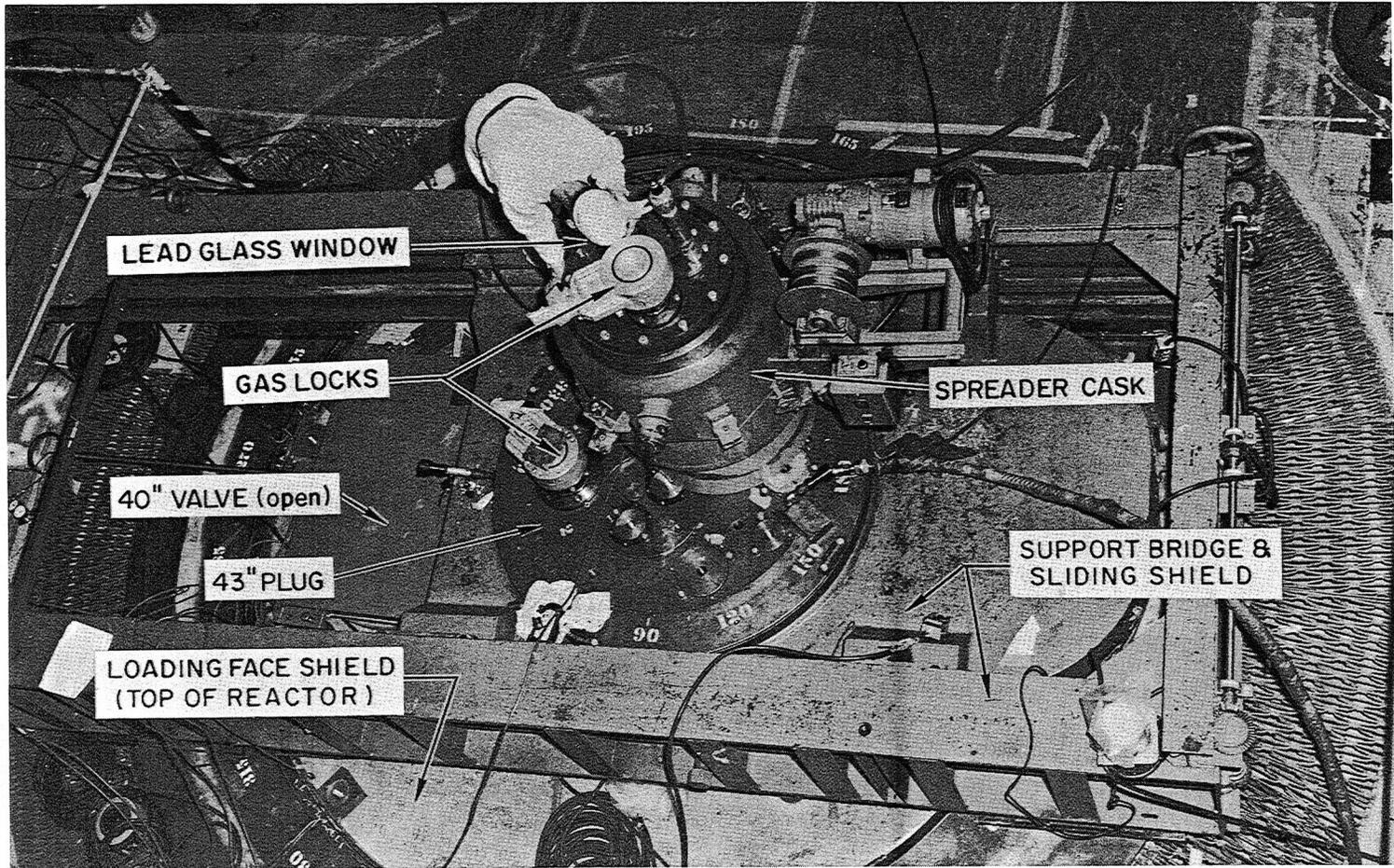


Figure 55. Support Bridge and Spreader Cask Over Reactor

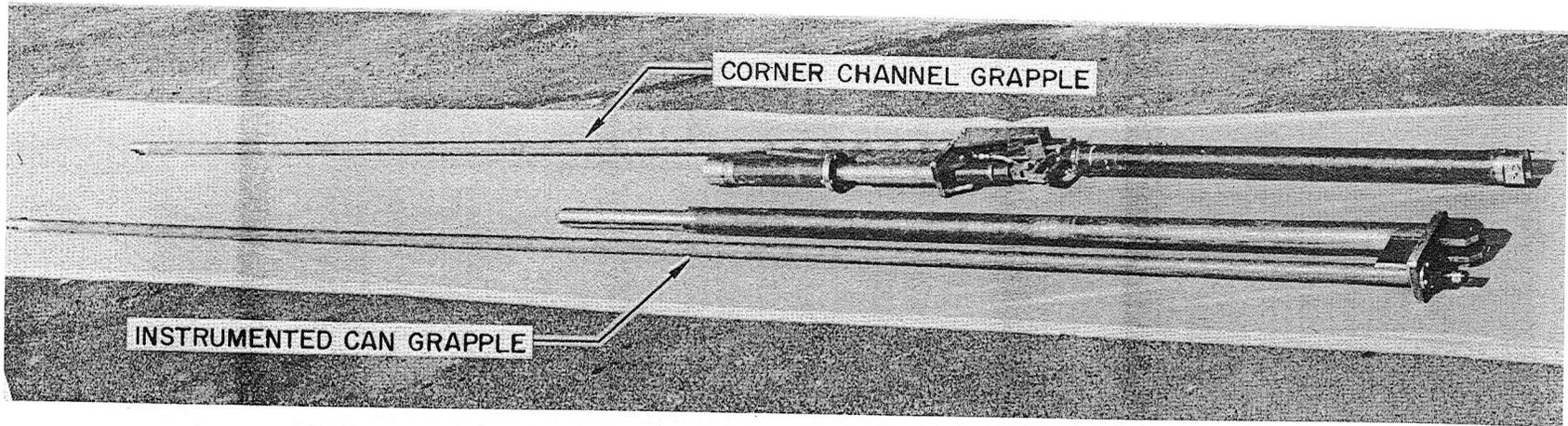


Figure 56. Moderator Can Grapples

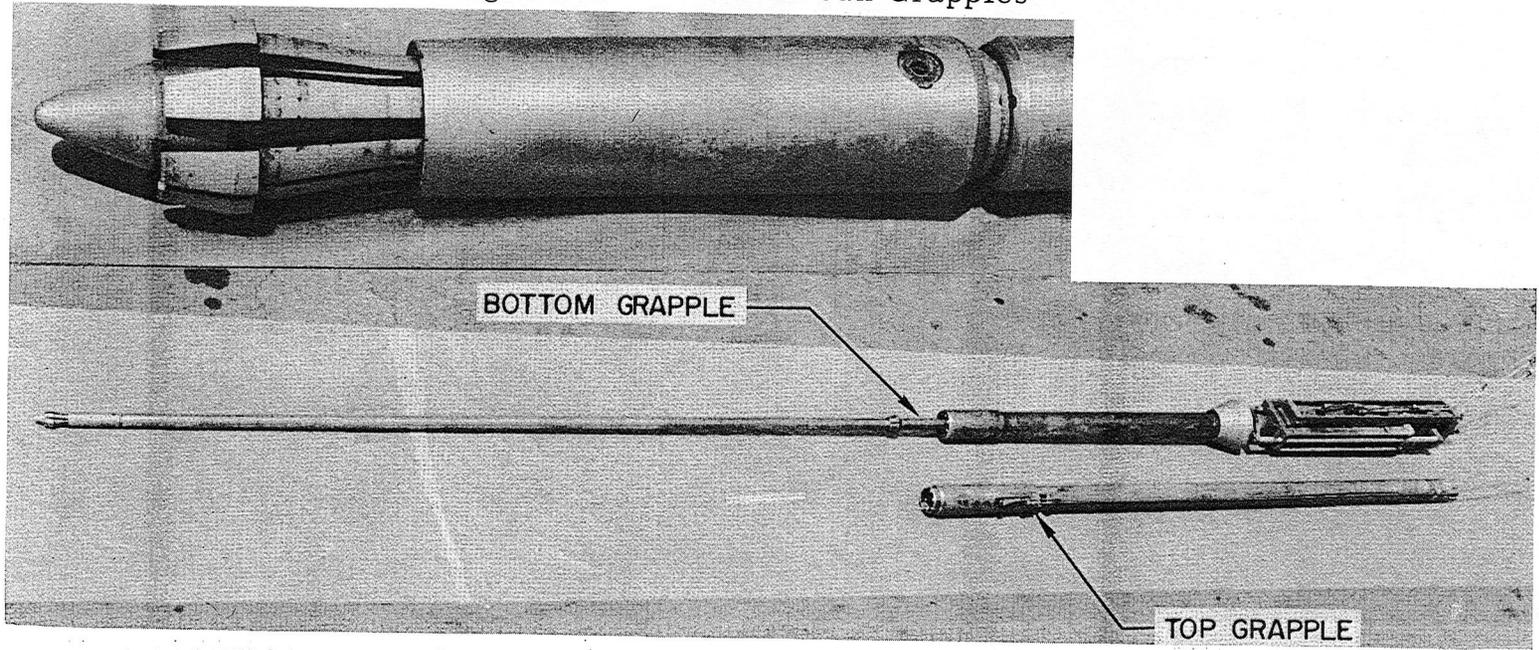


Figure 57. Moderator Handling Grapples

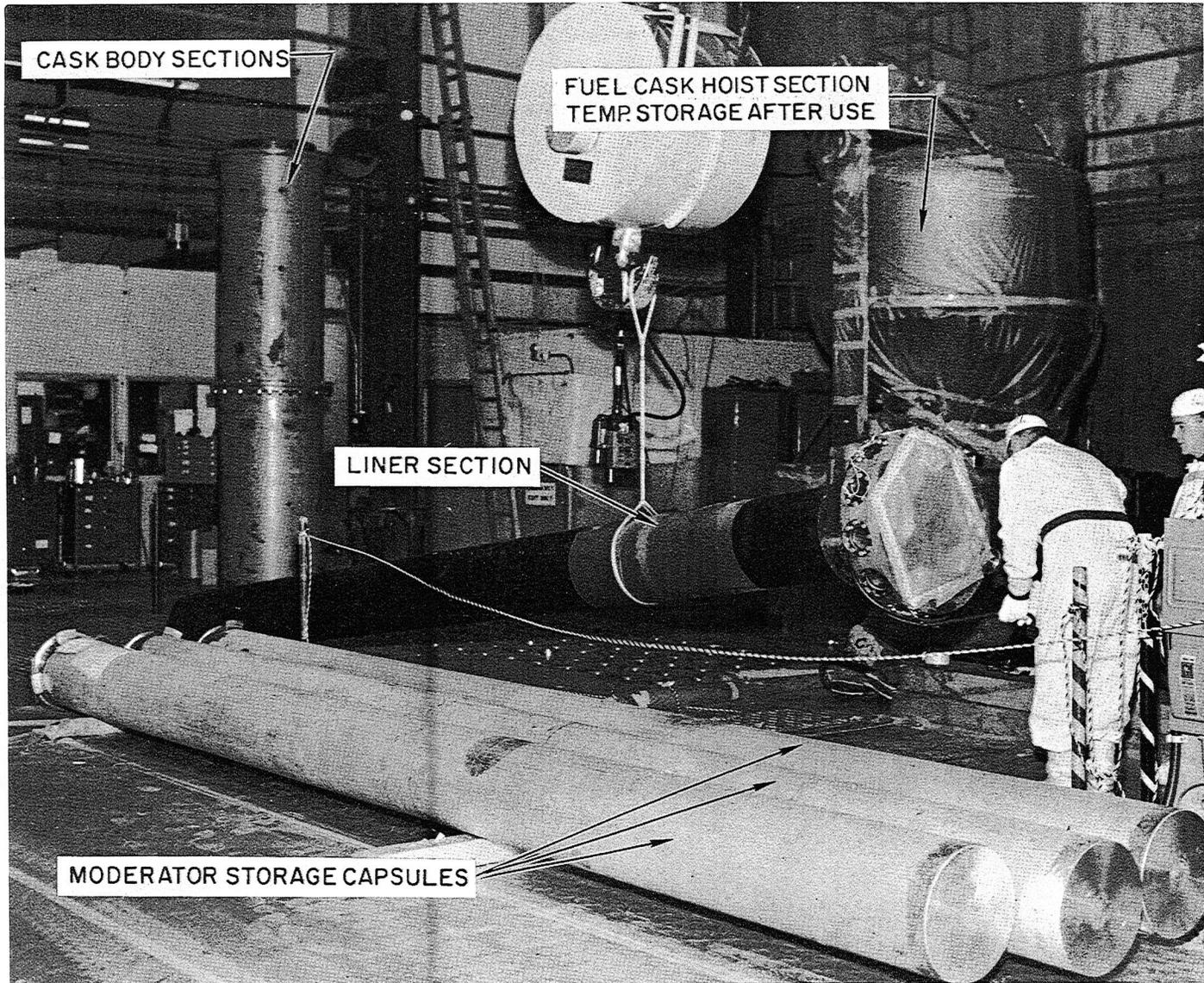


Figure 58. Assembly of Encapsulation Equipment

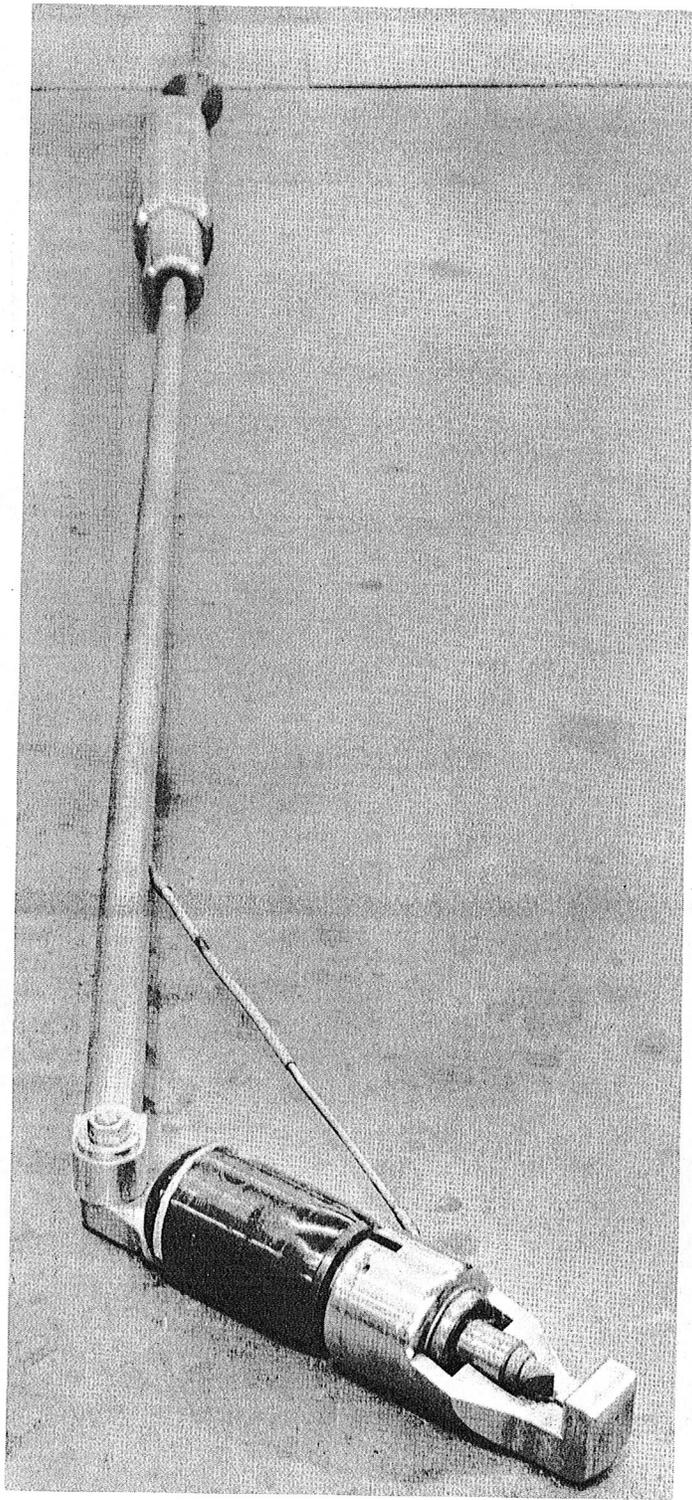


Figure 59. Instrument Tube Cutoff Tool

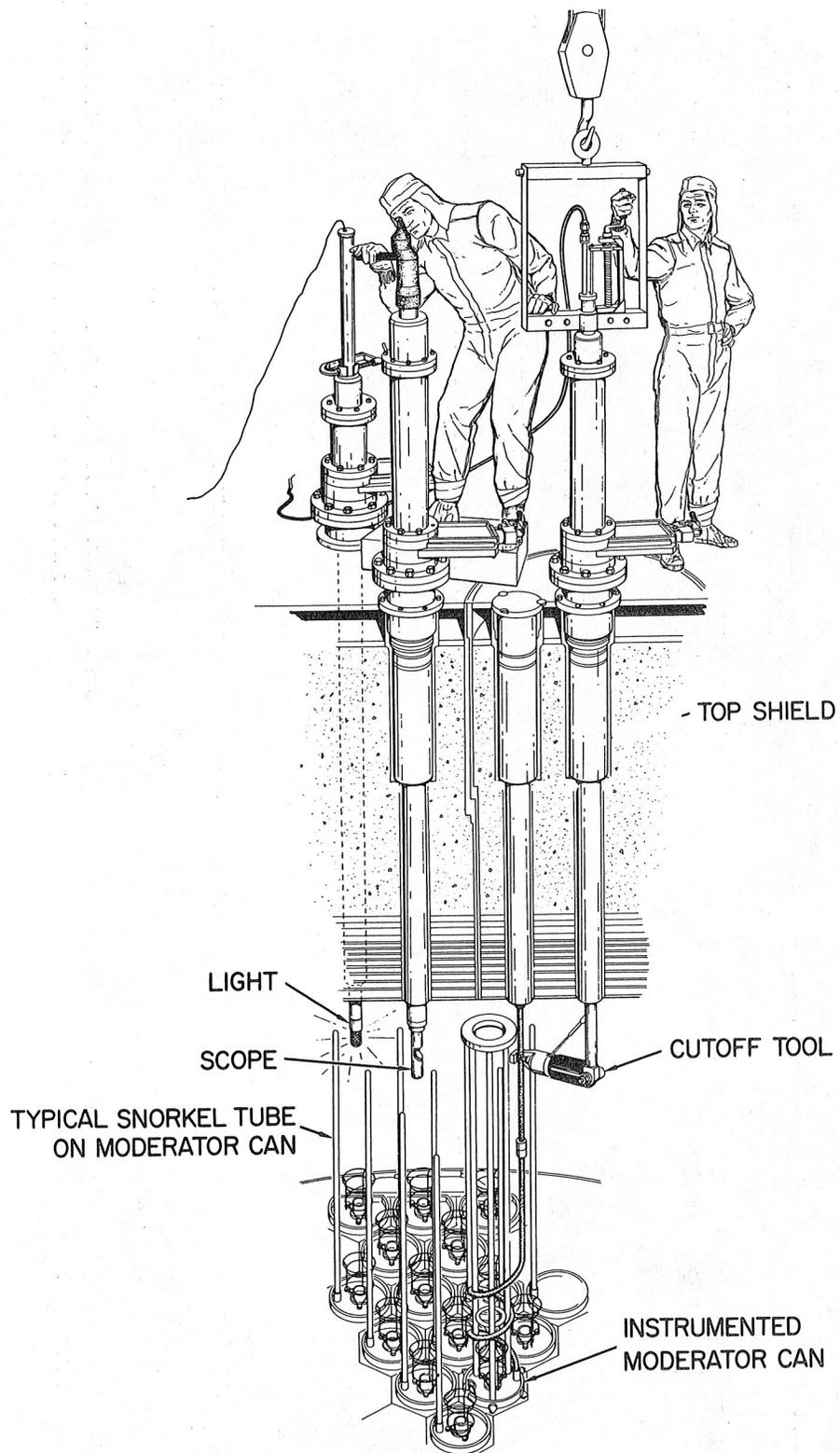


Figure 60. Cutting Tube Leading to Instrumented Moderator Can

NAA-SR-6359
89

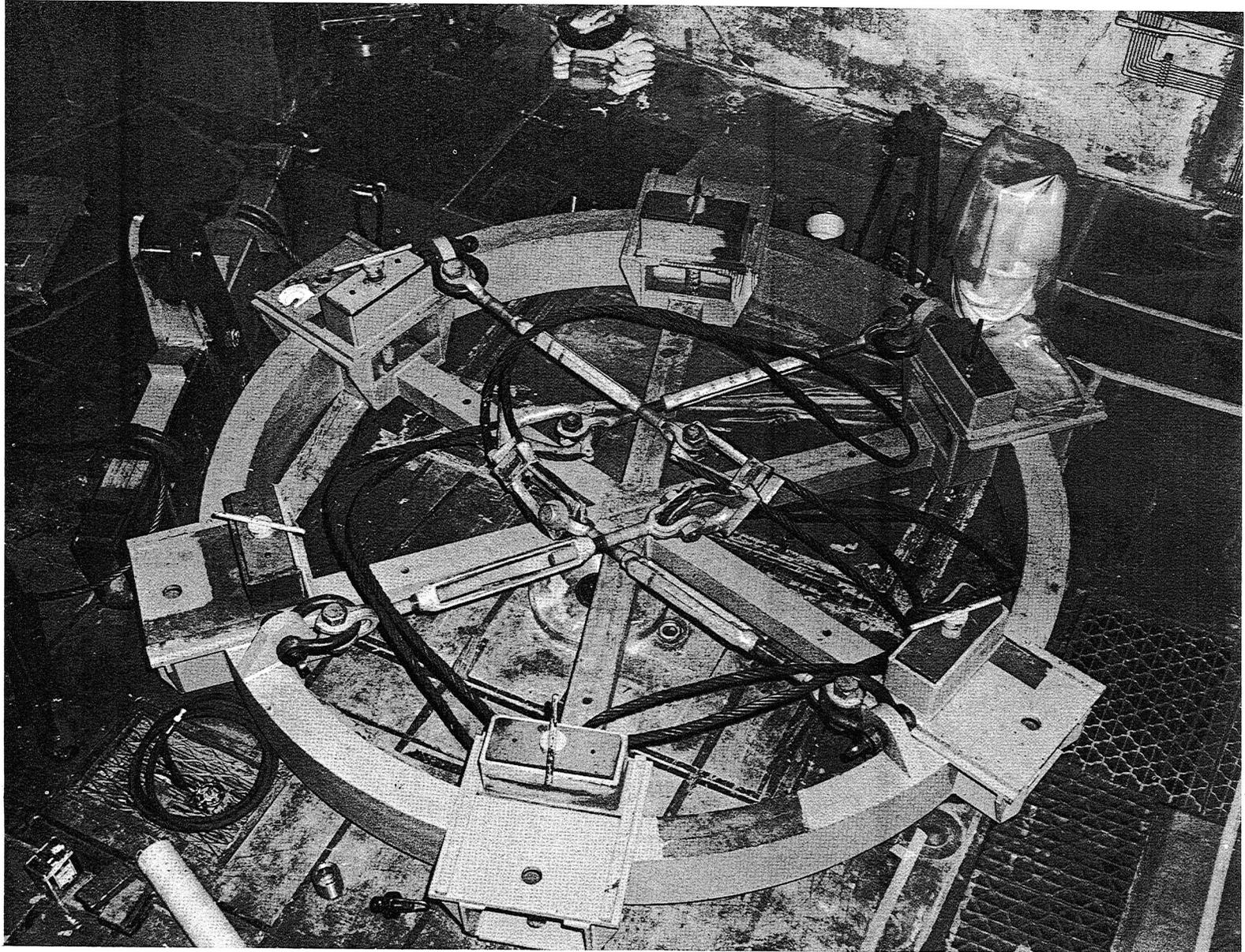


Figure 61. Hoist Strong Back for Top Shield

NAA-SR-6359
90

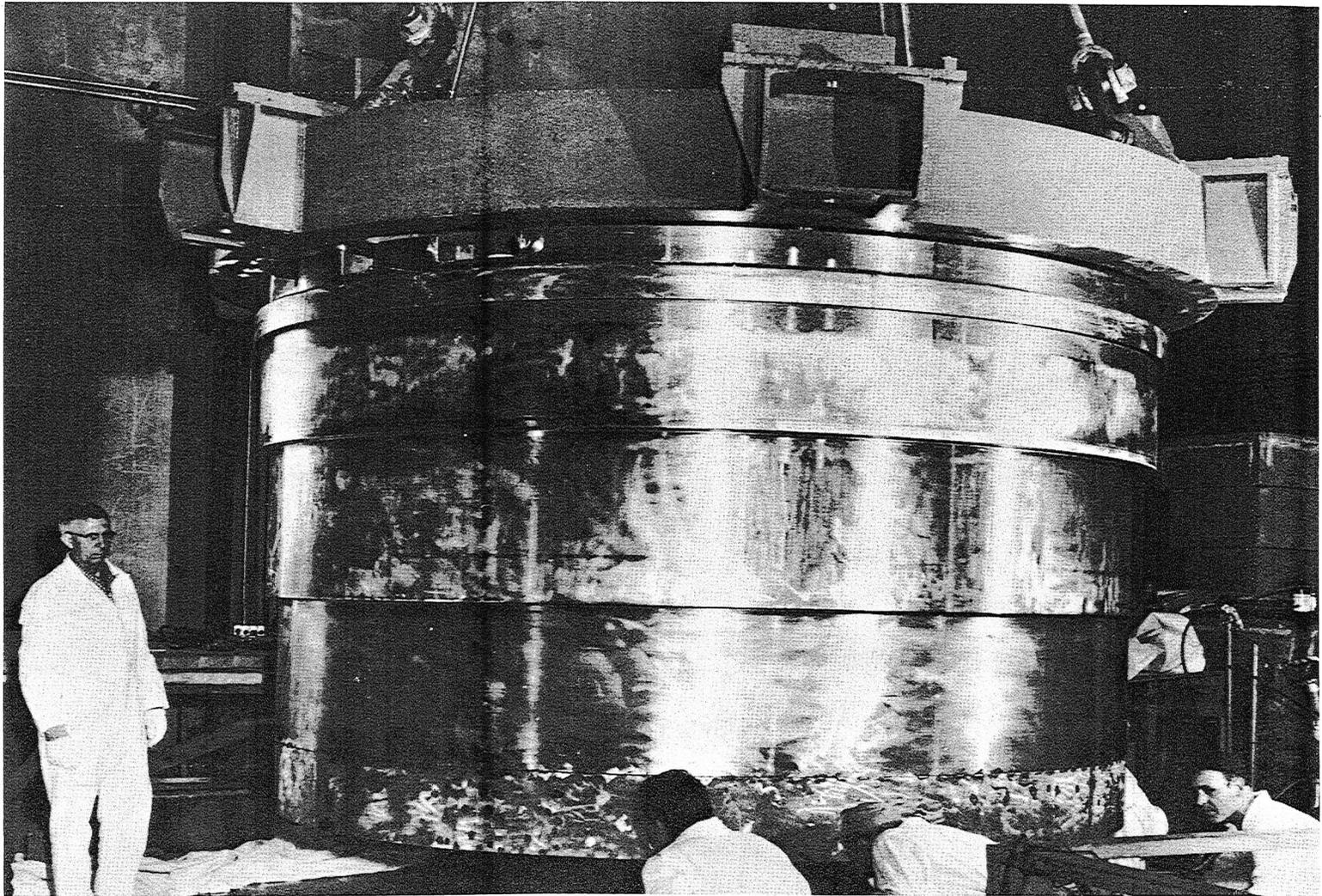


Figure 62. Hoist Strong Back Attached to Reactor Top Shield During Construction

NAA-SR-6359
91

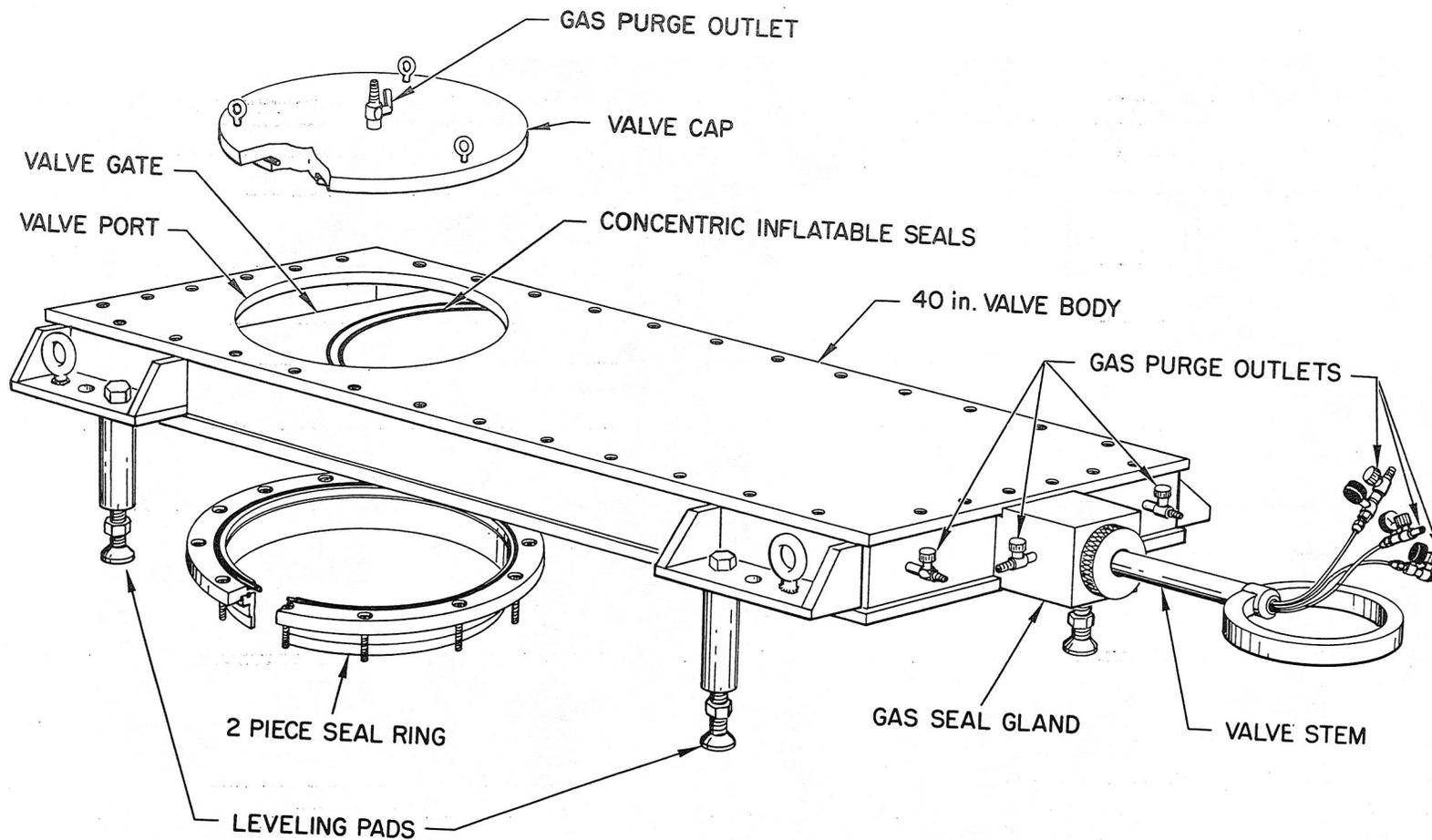


Figure 63. 40-in. Valve

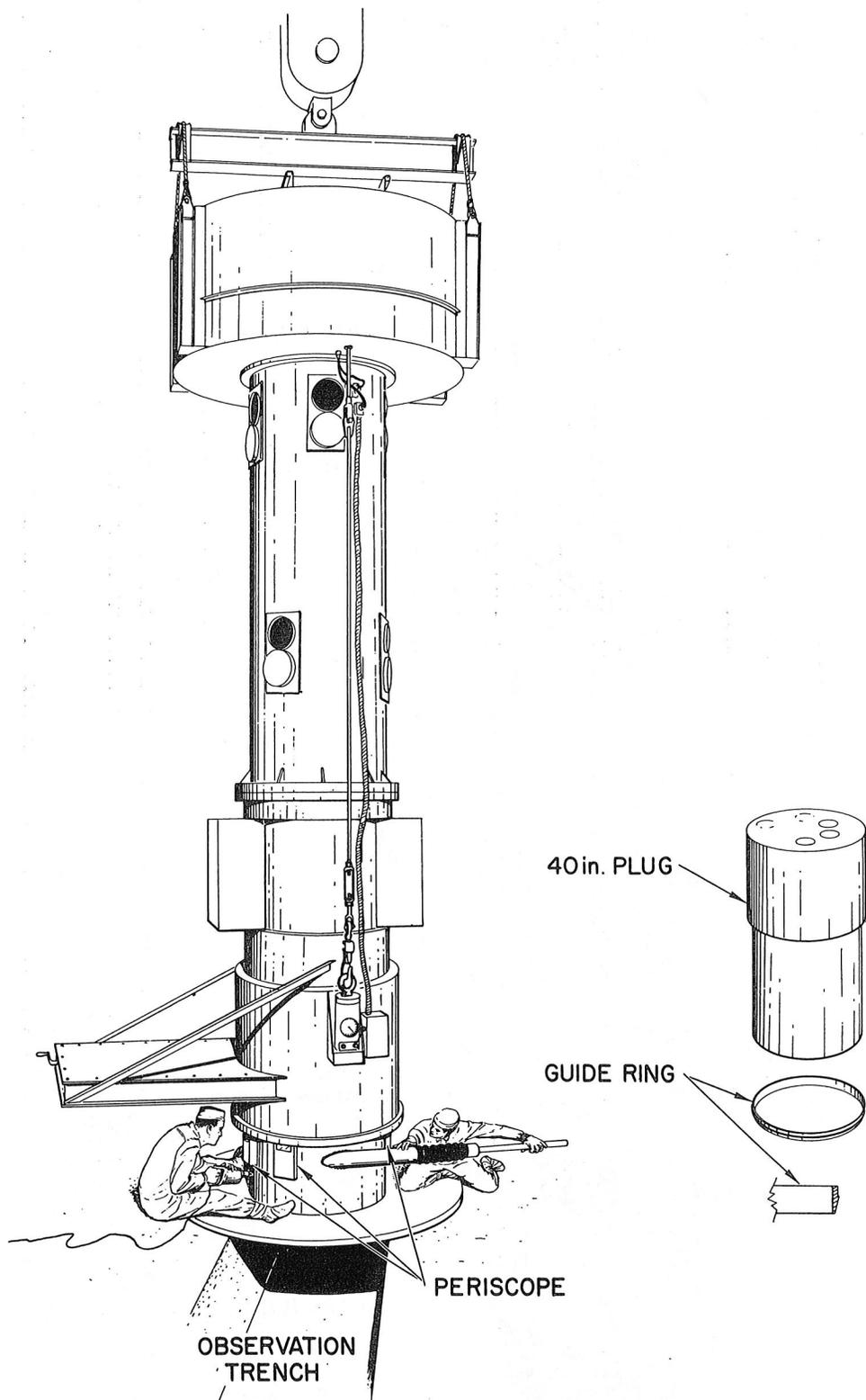


Figure 64. Installing Guide Ring on Bottom of 40-in. Plug

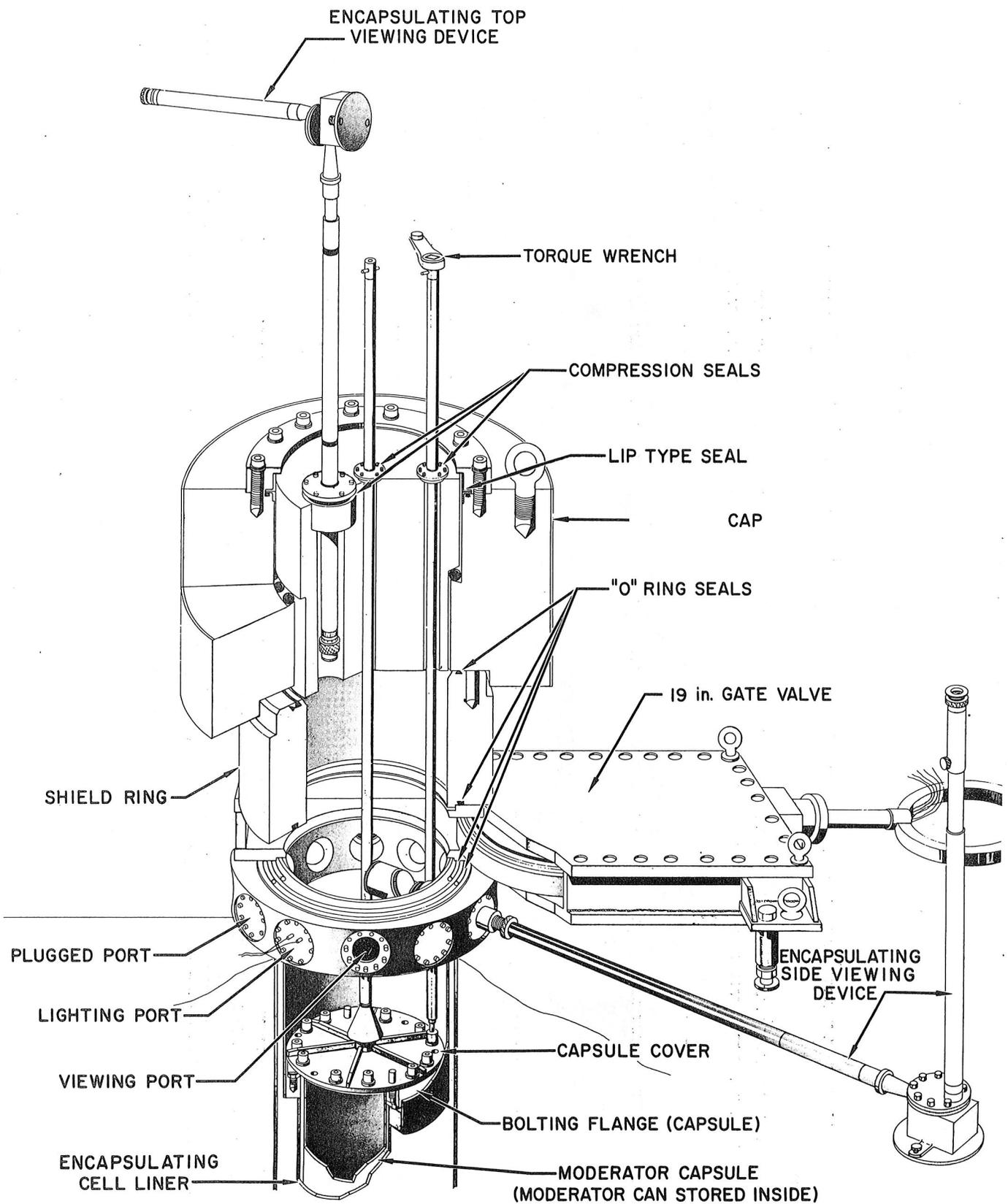


Figure 65. Moderator Can Encapsulating Assembly

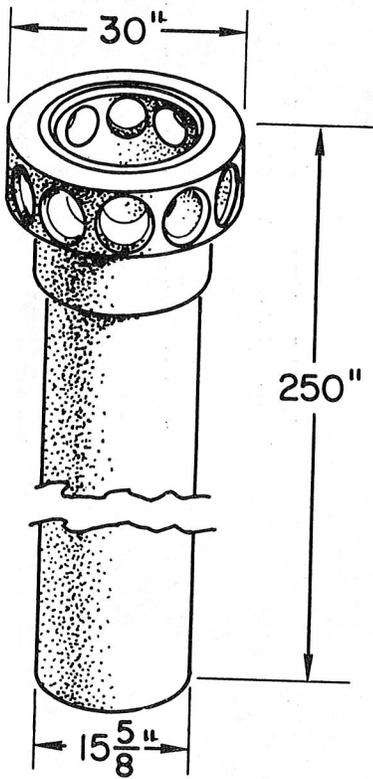


Figure 66.
Moderator Can
Encapsulating
Cell Liner

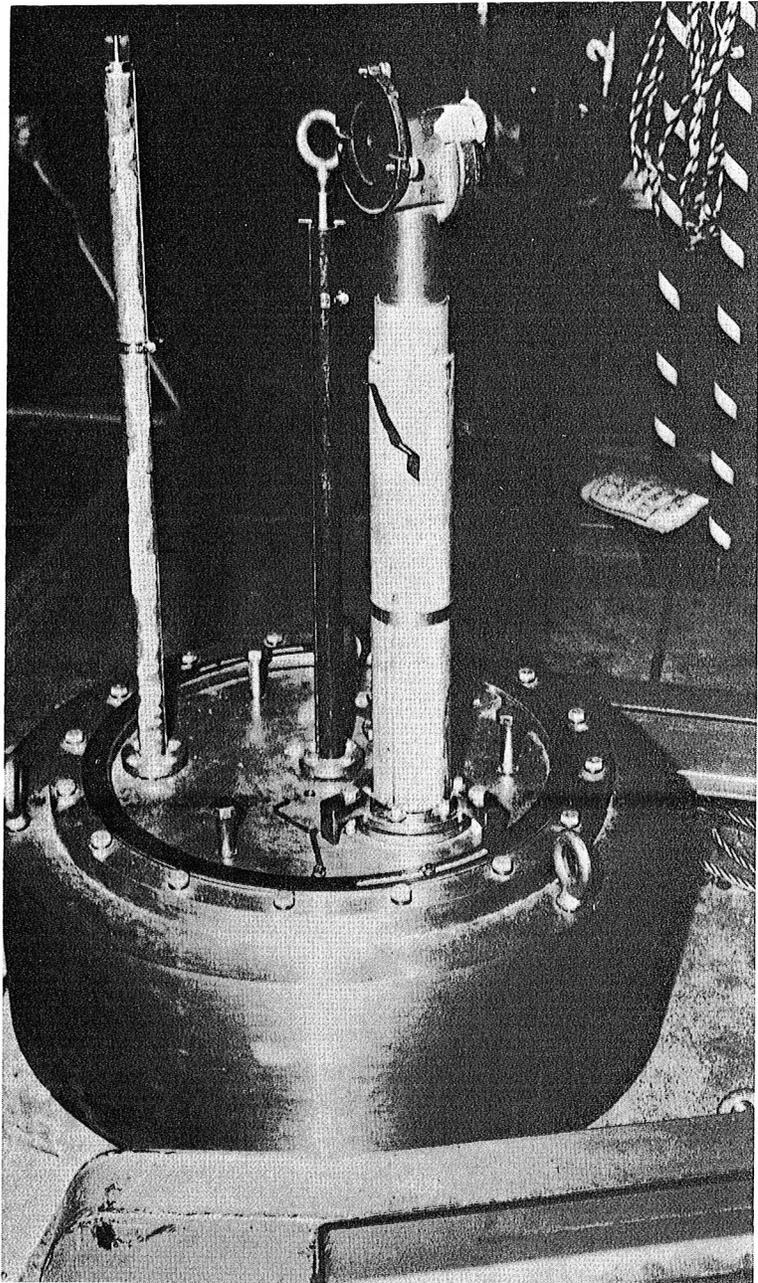


Figure 67. Rotary Cap
for Encapsulating Assembly

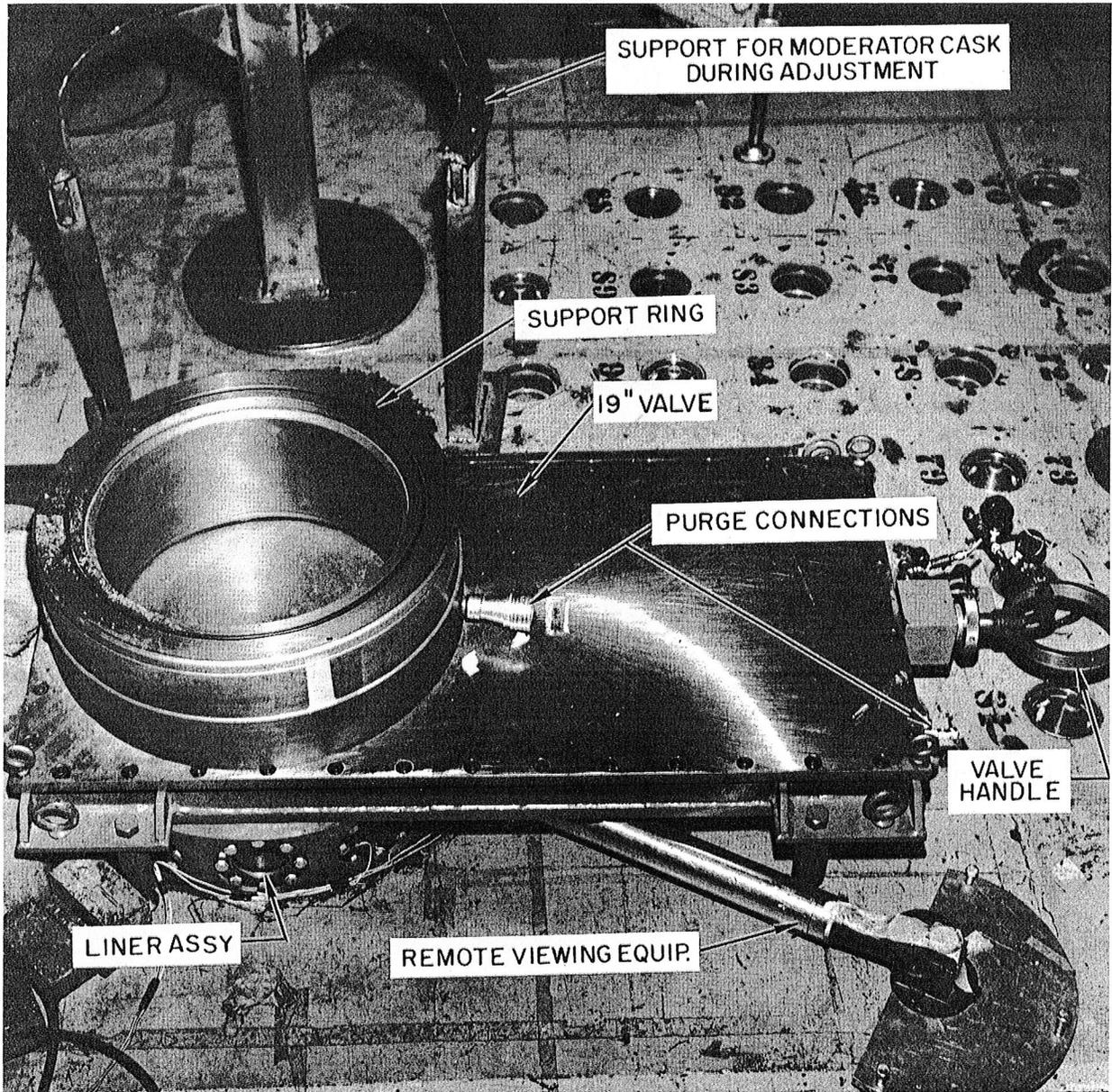


Figure 68. Encapsulation Equipment, Top View

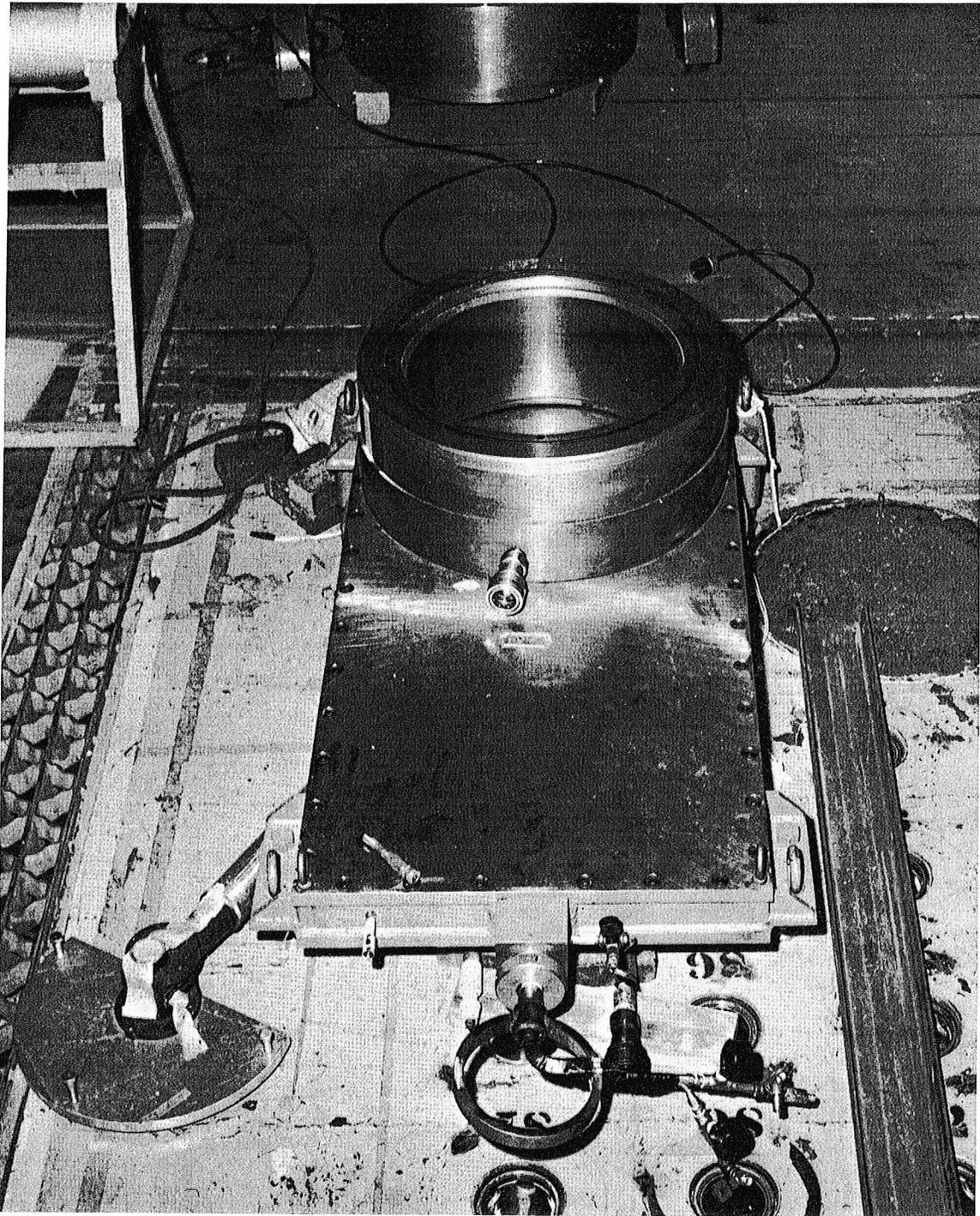


Figure 69. Encapsulating Area, 19-In. Valve and Shield Ring

NAA-SR-6359

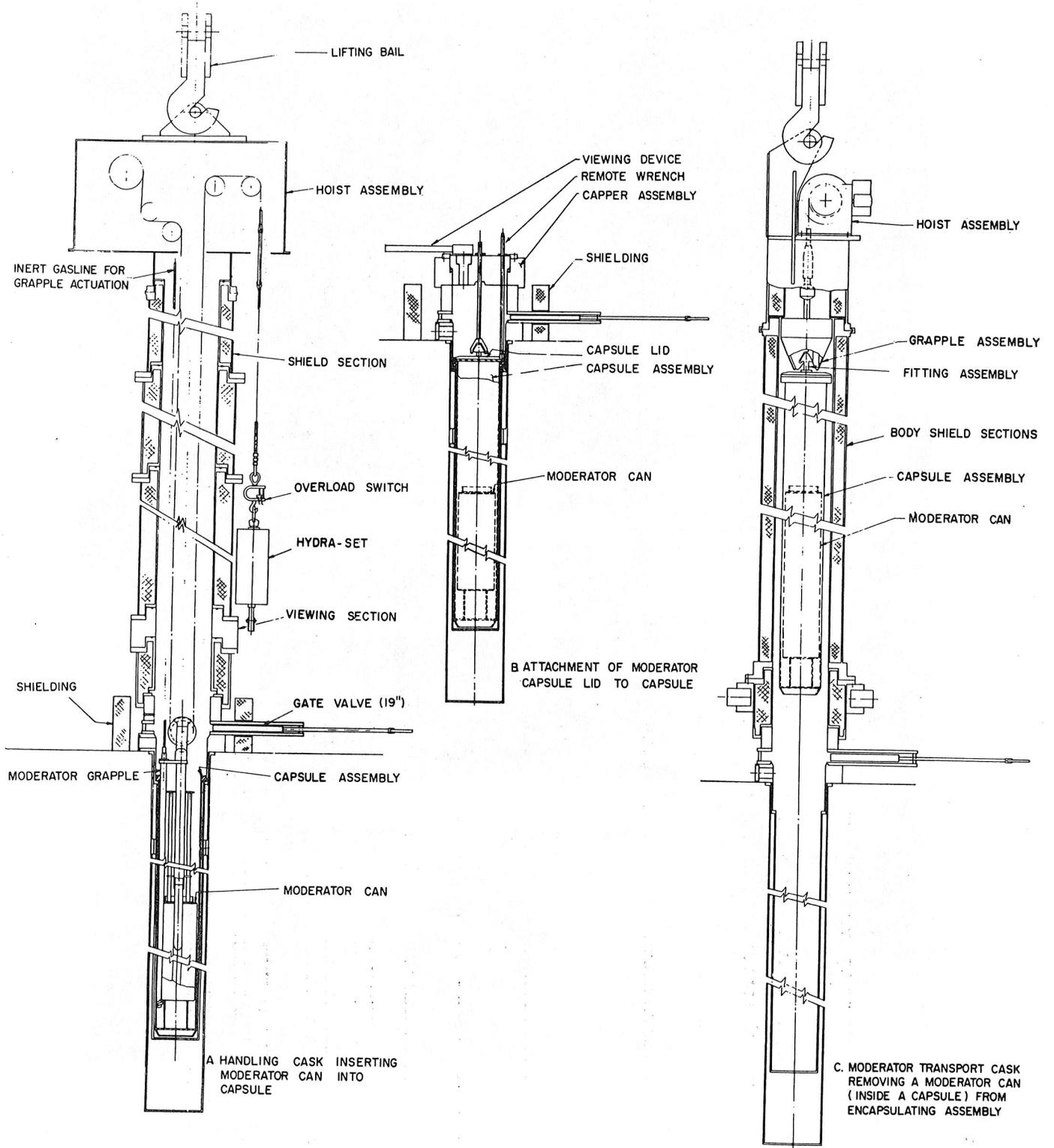


Figure 70. Moderator Can Encapsulating Operation

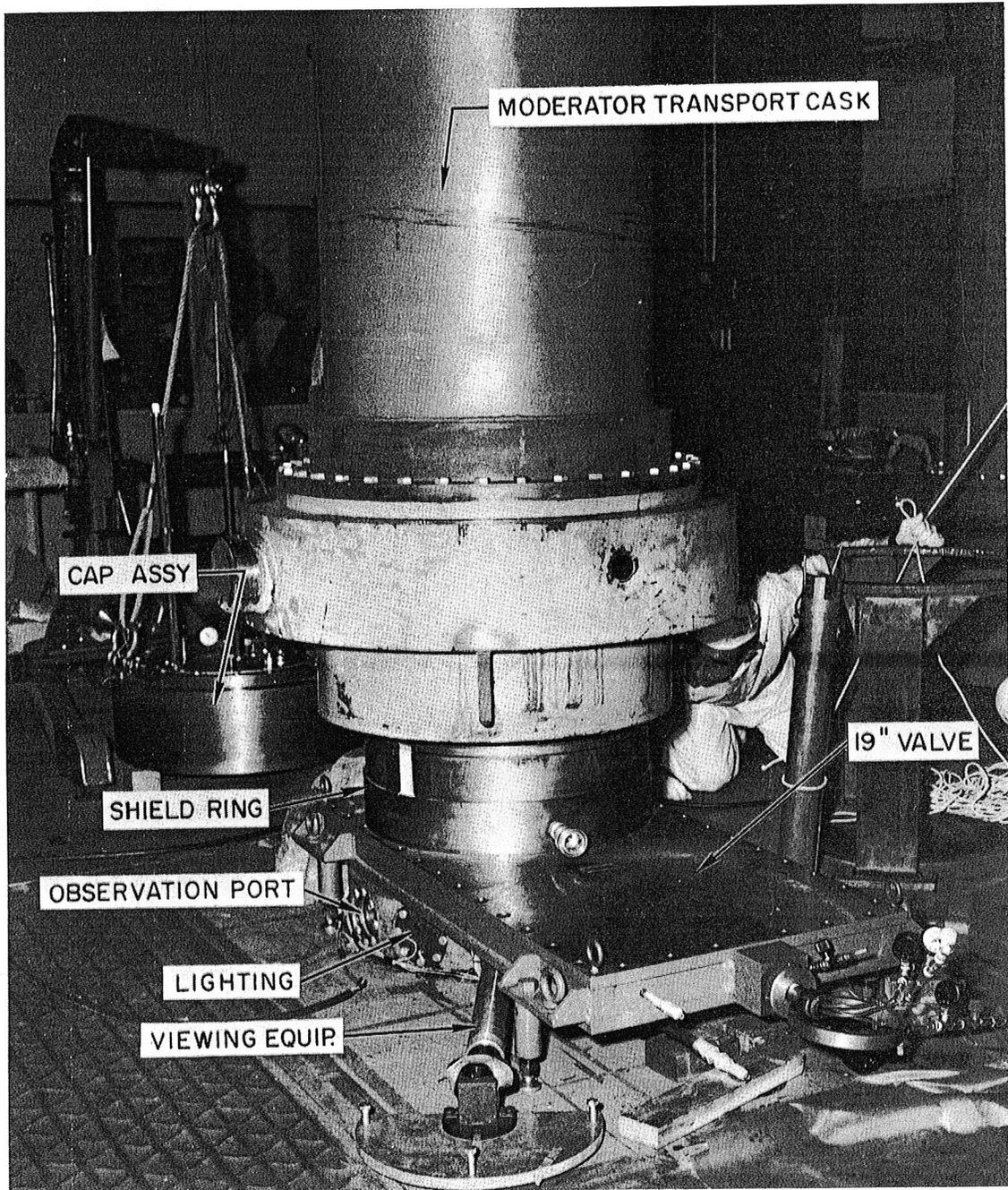


Figure 71. Moderator Transport Cask Positioned To Remove Encapsulated Moderator Can

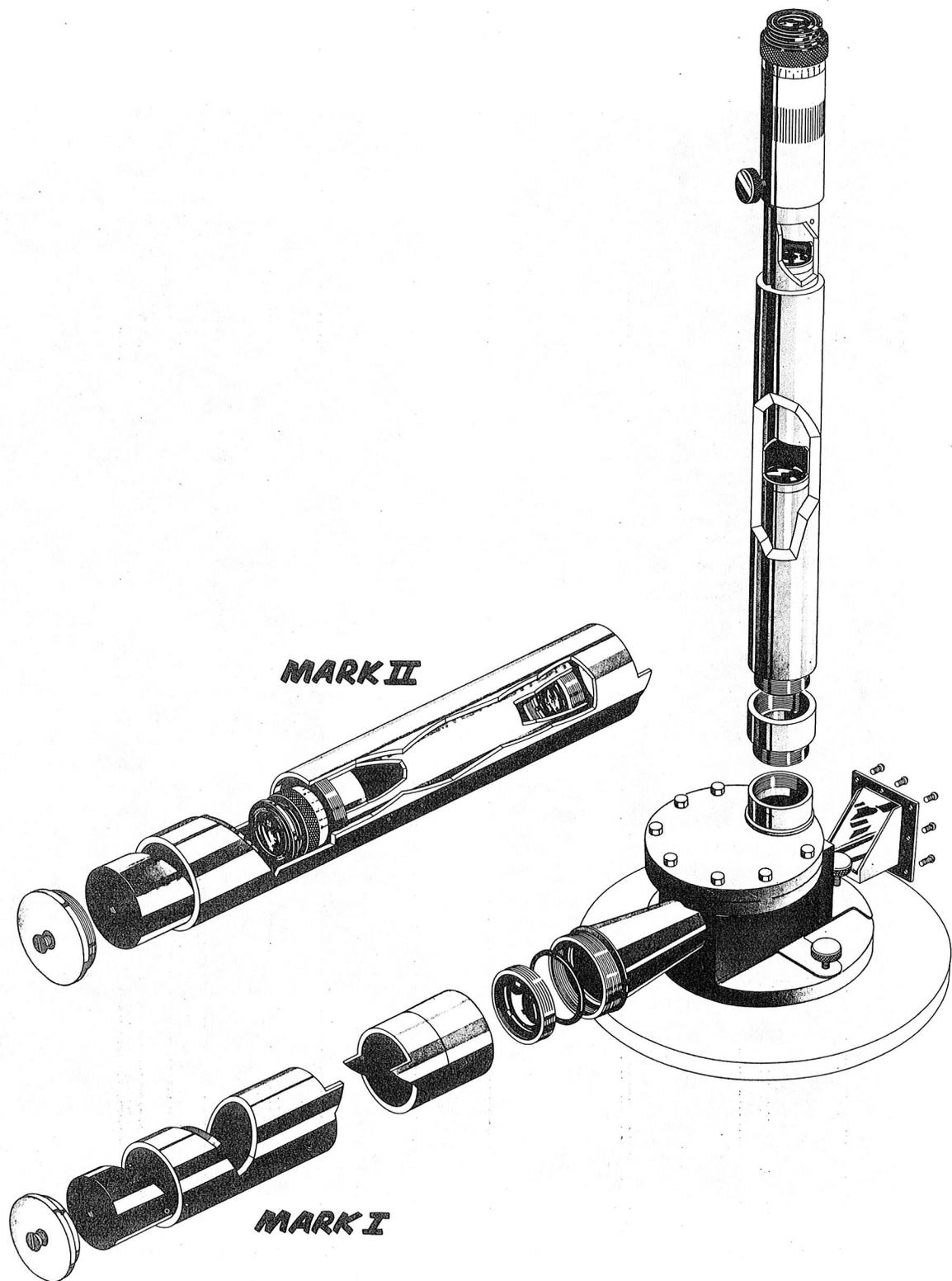


Figure 72. Moderator Encapsulating Viewers

NAA-SR-6359
100

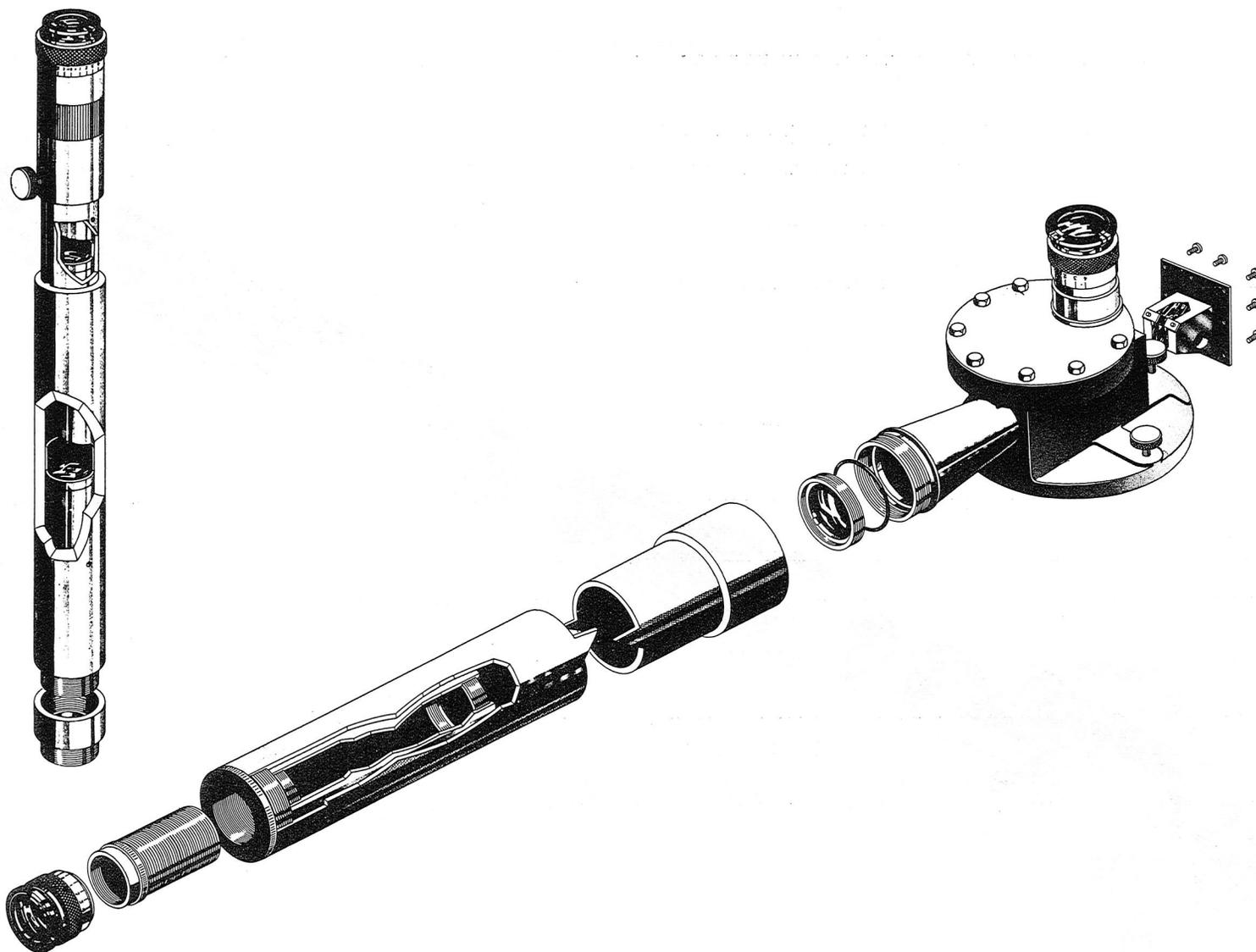


Figure 73. Scopes For Moderator Encapsulating Equipment

NAA-SR-6359
101

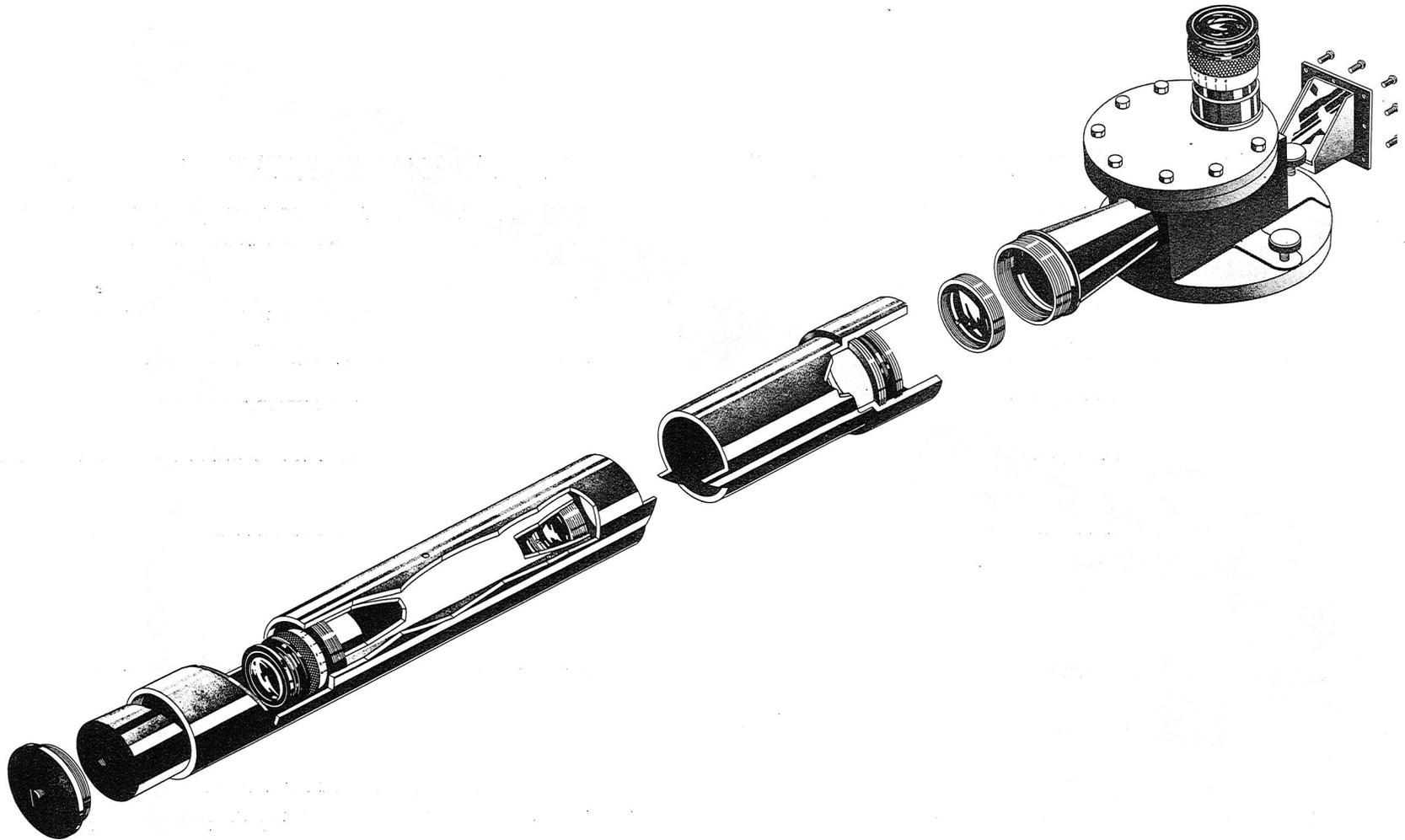


Figure 74. Moderator Encapsulating Viewer, Mark IV

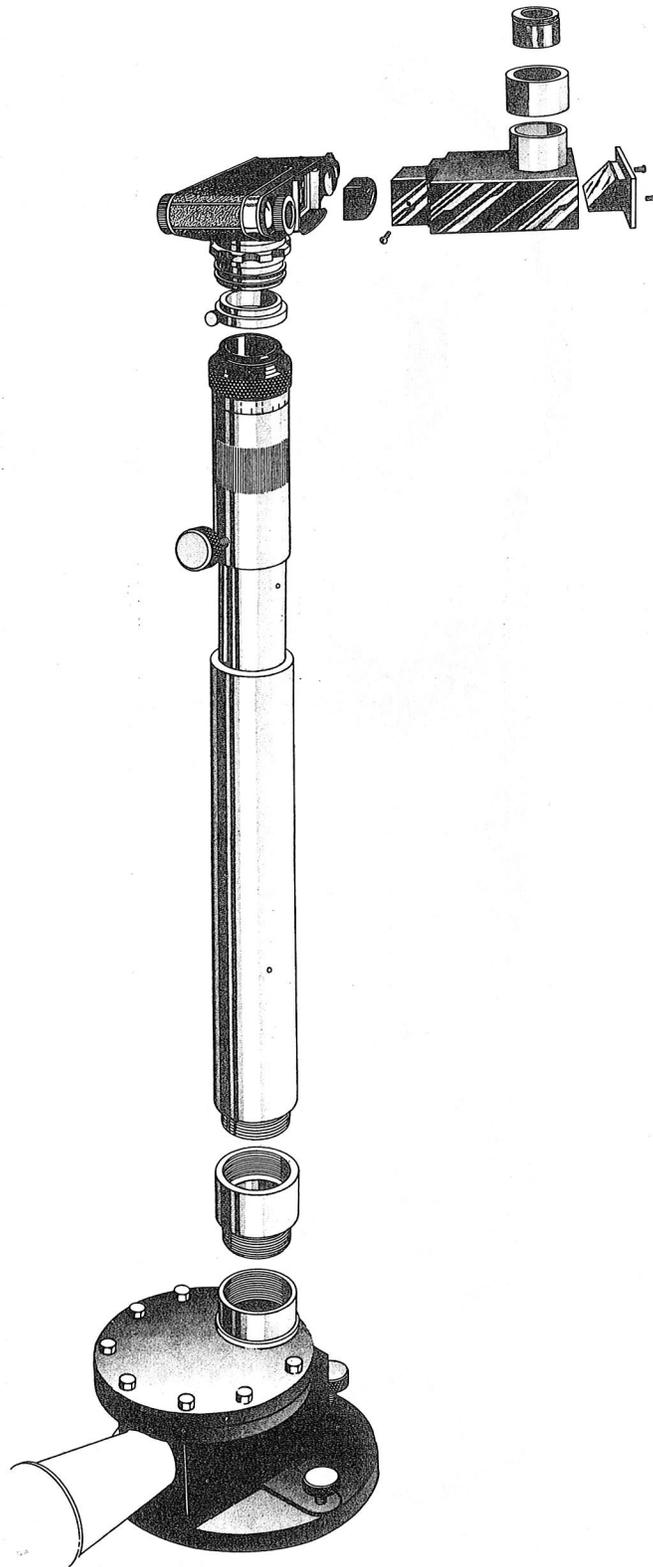


Figure 75. Camera Attachment for Encapsulating Viewer

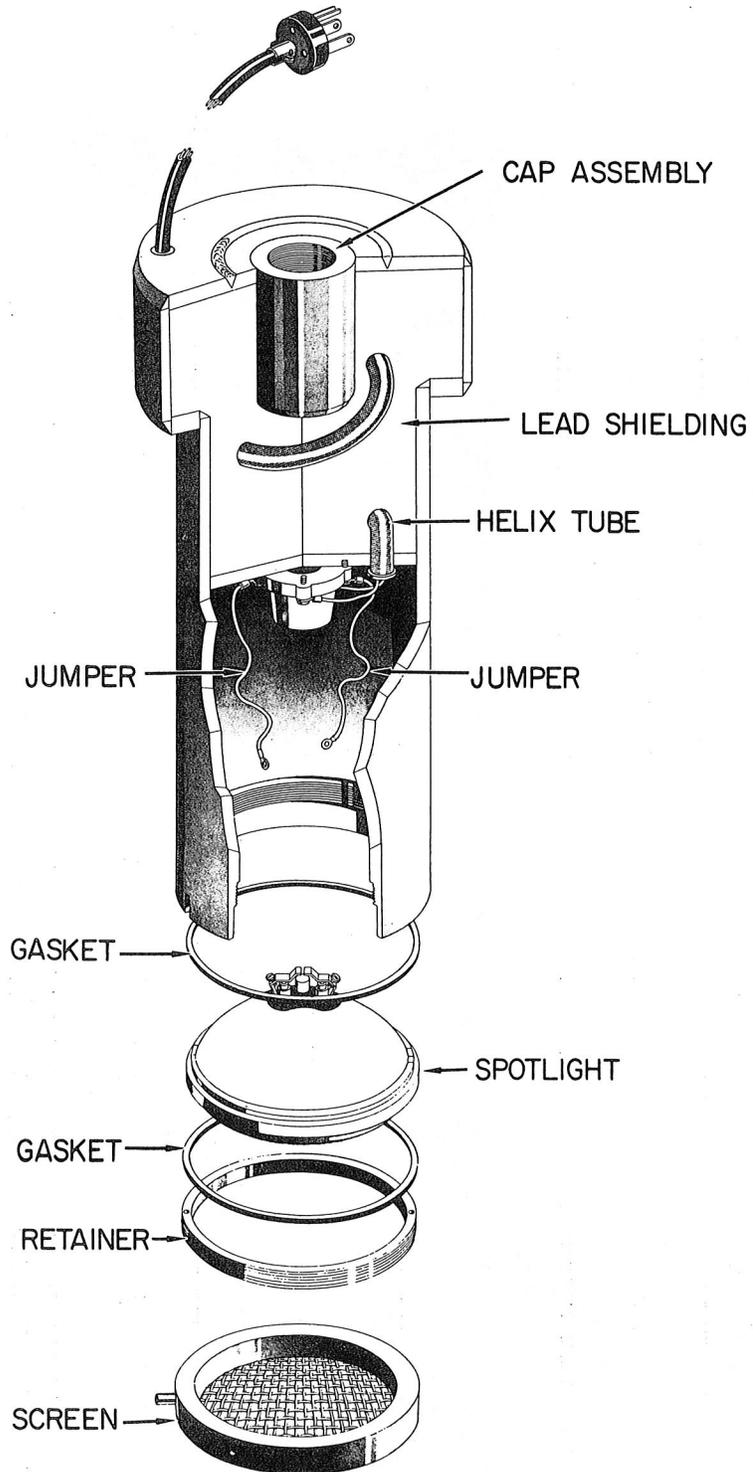


Figure 76. Light Assembly for Sliding Shield

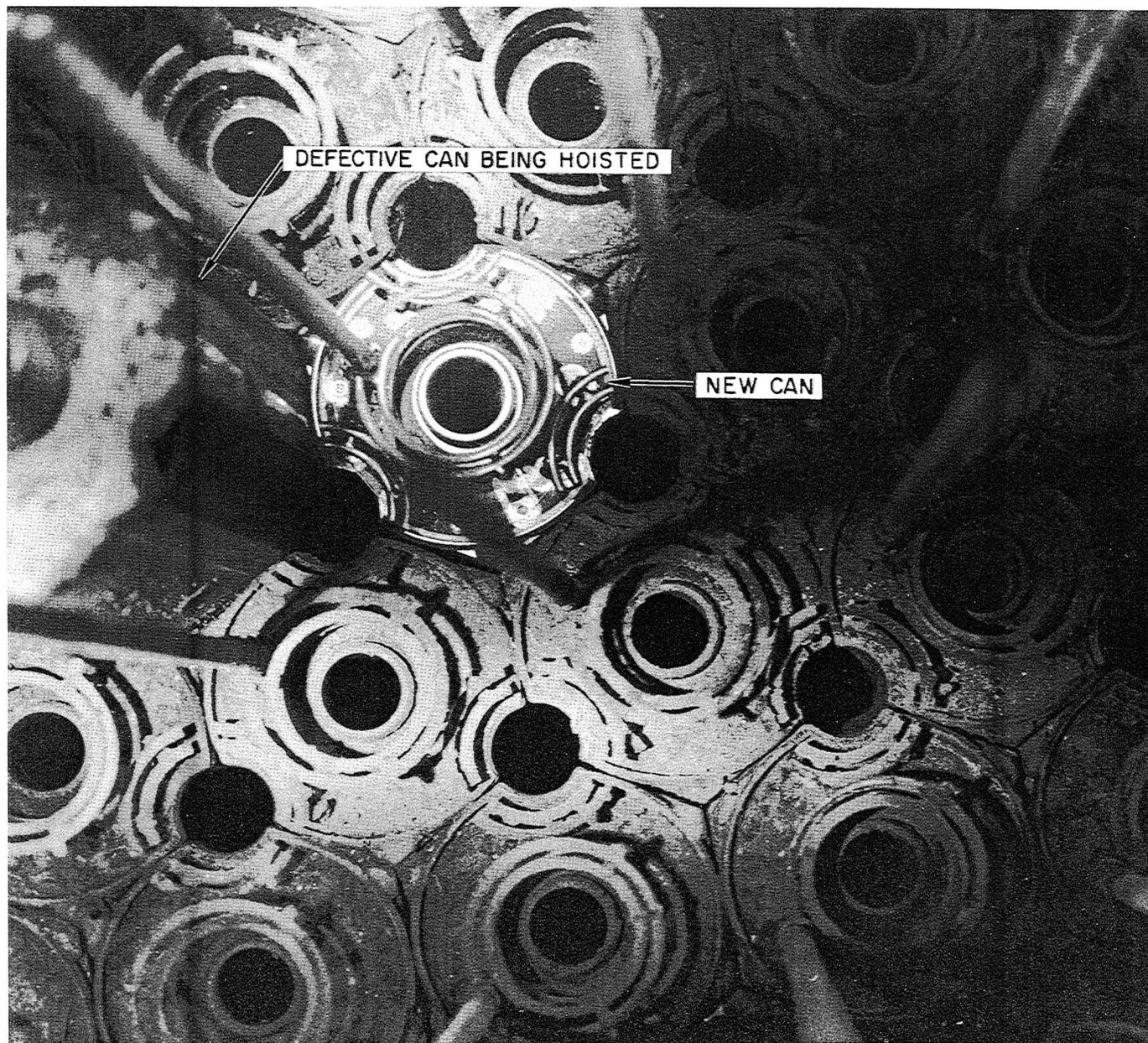


Figure 77. Removing Moderator Can From SRE Core