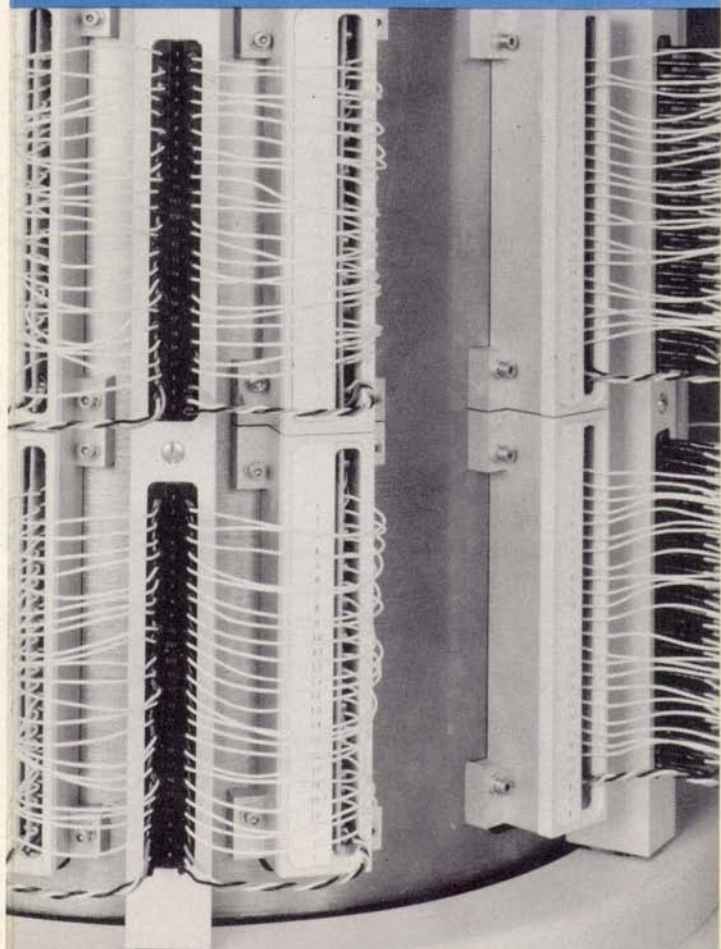
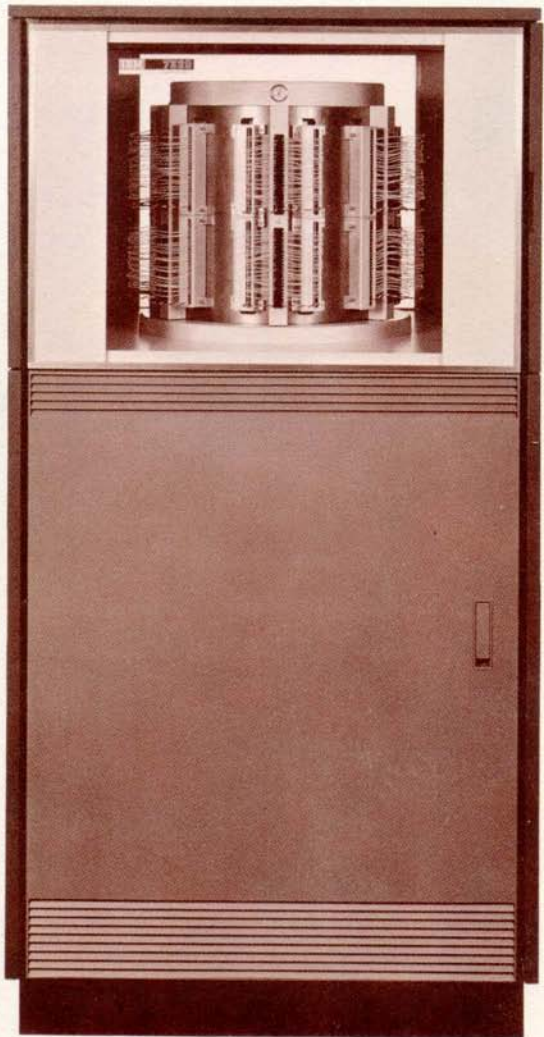


IBM 7320 Drum Storage



CUSTOMER ENGINEERING ANNOUNCEMENT



THE IBM 7320 DRUM STORAGE is a rapid-access, auxiliary storage for the IBM 7090 and 7094 Data Processing Systems. In its application, the 7320 Drum Storage bridges the gap between a high-speed, limited capacity core storage and slow-speed, large capacity random-access disks and magnetic tape.

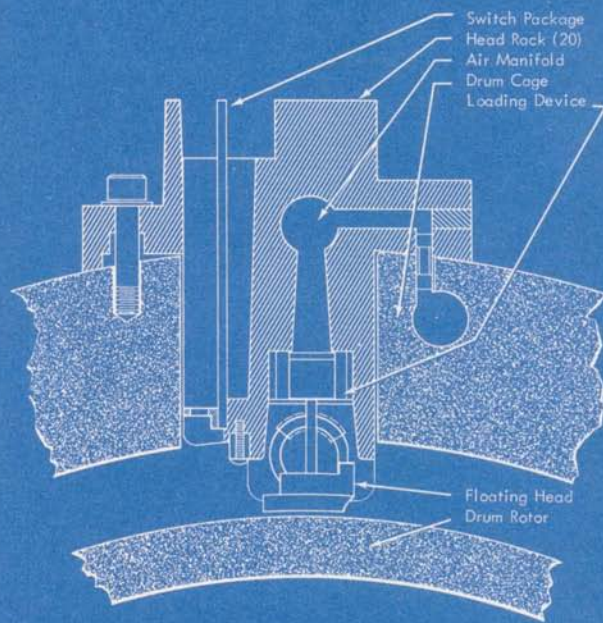


Diagram of Floating Shoe Mechanism

Programming of the IBM 7320 is compatible with that for the IBM 1301 Disk Storage. The 7320 is controlled by a 7631 File Control with drum attachment feature. Data format, addressing, and recording track length are similar to those on the 1301. Intermixing of drum storage and disk storage is permissible. Any character size or code combination may be used.

Primary applications for the 7320 Drum Storage include temporary storage of systems programs, operational programs, subroutines, tables, and mathematical functions. Data may be stored temporarily during sorting or problem solution.

Operational Speeds and Capacities

Write-Read Rate	1.22 million bits per second
Drum Capacity	1.12 million six-bit characters
Number of Tracks	400 data tracks plus 40 spares; 1 pre-recorded clock track, plus 2 spares; 1 program-controllable format track
Track Capacity	2800 six-bit characters
Access Time	17.5 ms maximum; 8.6 ms average
Drum Size	10.7 inches in diameter, 12 inches long
Rotational Speed	3490 rpm, nominal

Functional Components

Drum Assembly Consists of a vertically mounted drum rotor, motor, and read-write head assembly. Vertical mounting permits easy access to all components.

Head Assembly Consists of 11 laminated, dual-core floating head shoes to hold the 440 read-write elements. Floating shoes require no adjustment.

Filter System Consists of a pre-filter, blower, absolute filter. After the pre-filter removes the larger dust particles, the absolute filter removes 99.97 per cent of all 0.3-micron or larger particles.

Pneumatic System Provides air pressure to load the floating head shoes and establish proper spacing from shoe to drum (see drawing).

Unit Dimensions 30 inches long, 29 inches wide, 60 inches high, 850 pounds.

Other functional components are: gate for circuit cards, gate for power components, input-output cable panel, and CE control panel.

Drum Features

Addressing

Each data track has a home address that identifies a track by its geographic position on the drum. In addition, a record address precedes each data record; this record address may be data-oriented, such as a part number, or it may be geographic.

Format Track

A single, program-controllable format track permits control of record length for the entire drum.

Clock Track

A clock track provides the 7631 File Control with reference pulses used during data transfer. The clock track insures operation independent of variations in speed of the drum. No timing adjustments are required.

Local-Remote

This switch allows the drum to be controlled by the Customer Engineer (local) or by the 7631 File Control (remote).

Format-All Zeros

Provides a source of data during a "local" write operation.

The IBM logo, consisting of the letters "IBM" in a stylized, outlined font.

International Business Machines Corporation
Data Processing Division
112 East Post Road, White Plains, New York