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FUNDAMENTAL MANUFACTURING PROCESSES

Sheet Metal Stamping Presses - SP

SCENE 1.
, CGS: Press Controls
white text, centered on background
FMP BKG, motion background

SCENE 2.
SP070A, SME4428, 16:34:09:00 – 16:34:31:00
zoom out from c.u. press controls,

, CGS: Electrical
Electro-Mechanical
Pneumatic
Hydraulic
Electronic
, SME2692, 01:08:18:00-01:08:25:00
simple controls, motor, starter & disconnect switch
, SME2757, 01:09:24:00-01:09:37:00
pan of multi-motor control with sensors & control systems

NARRATION (VO):

PRESS CONTROLS INVOLVE ELECTRICAL, ELECTRO-MECHANICAL, PNEUMATIC, HYDRAULIC, ELECTRONIC, AND OTHER EQUIPMENT USED TO CONTROL THE OPERATION OF PRESSES. COMPLEXITY OF CONTROLS RANGES FROM A SIMPLE STARTER AND DISCONNECT SWITCH TO A SOPHISTICATED MULTI-MOTOR, MULTI-FUNCTION CONTROL INCORPORATING A VARIETY OF SENSORS, CONTROL SYSTEMS AND DEVICES.

SCENE 3.
SP071A, SME4427, 15:42:27:07 -15:42:40 10
pan from press controls to manually loaded part being stamped
SP071B, SME4428, 16:34:09:11 – 16:34:29:23
tonnage control during operation **NA**
SP071C, SME4428, 16:19:22:21 – 16:19:38:00
big sensor box on press **NA**
SP071D, SME4428, 16:20:21:15 – 16:21:02:00
load indicator **NA**
SP071E, SME4428, 16:26:02:13 – 16:26:23:18
pull back, stamping operation
In above

NARRATION (VO):

IN ADDITION TO CONTROLLING THE MOTION OF A PRESS'S MOVING ELEMENTS, A CONTROL SYSTEM SHOULD ALLOW A STAMPING OPERATION TO YIELD CONSISTENT, PREDICTABLY HIGH PRODUCTION RATES WITHOUT JEOPARDIZING THE SAFETY OF OPERATING PERSONNEL, THE PRESS, OR DIES.

SCENE 4.
SP072A, SME4428, 16:19:55:10 - 16:20:10:16
press controls for mechanical press
SP072B, SME4428, 16:18:40:26 - 16:18:58:05
cnc controls on automated mechanical press
SP072C, SME4393, 03:36:31:20 - 03:36:55:23

NARRATION (VO):

SYSTEMS FOR CONTROLLING MECHANICAL POWER PRESSES ARE MOSTLY ELECTRO-MECHANICAL OR

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c.u. cnc controls on automated mechanical
SP072D, SME4393, 03:38:03:13 - 16:38:26:00

SOLID STATE. HOWEVER, COMPUTER NUMERICAL CONTROL OR ‘CNC’ SYSTEMS AND PROGRAMMABLE LOGIC CONTROLLERS OR ‘PLC'S’ ARE ALSO BEING USED, ESPECIALLY ON MORE COMPLEX, HIGHLY AUTOMATED SYSTEMS. SELF-CHECKING AND DIAGNOSTIC FEATURES, WITH FAST RESPONSE TO SENSORS, ARE BECOMING INCREASINGLY IMPORTANT IN AUTOMATED STAMPING OPERATIONS.

--- FADE TO BLACK ---