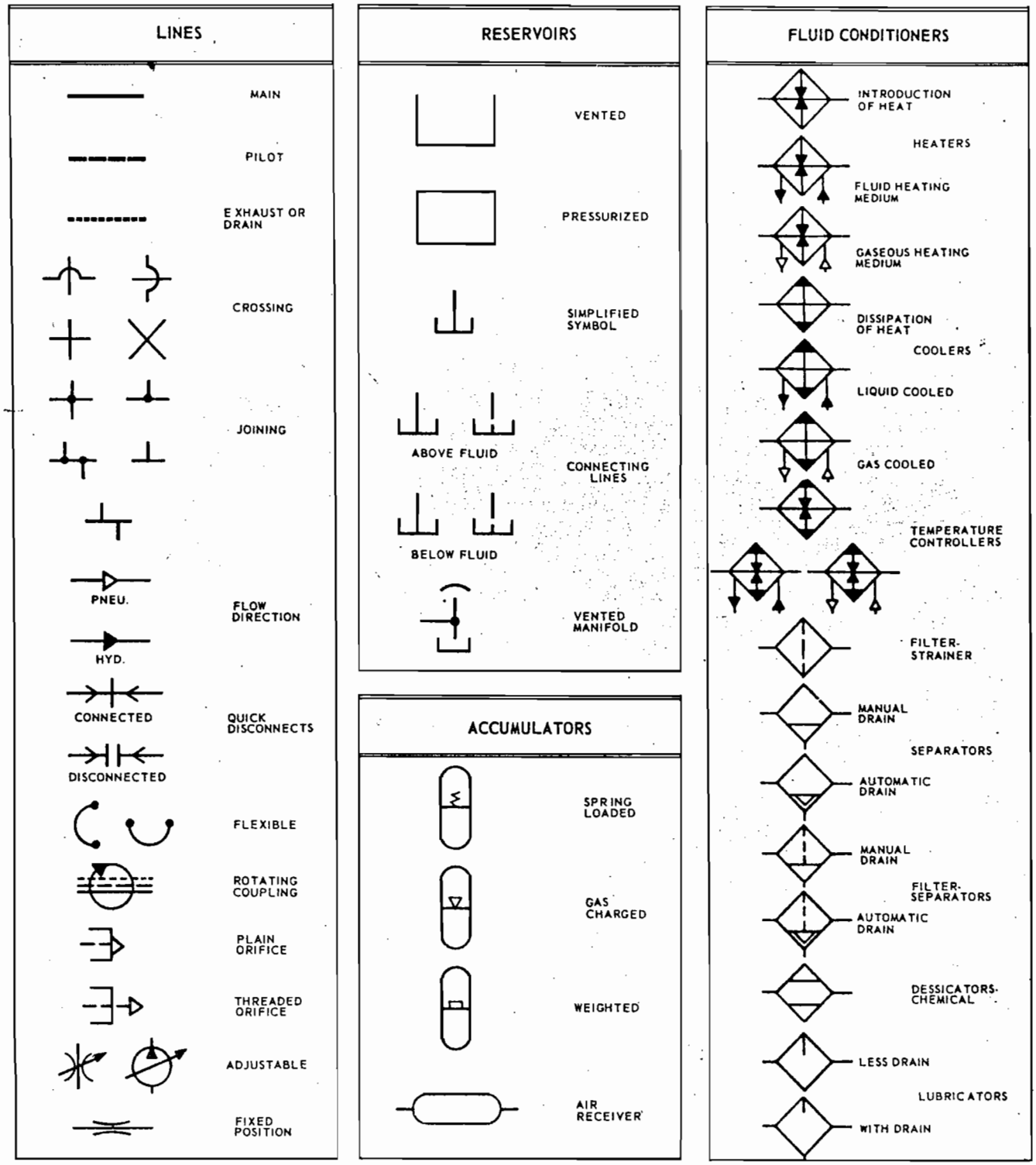
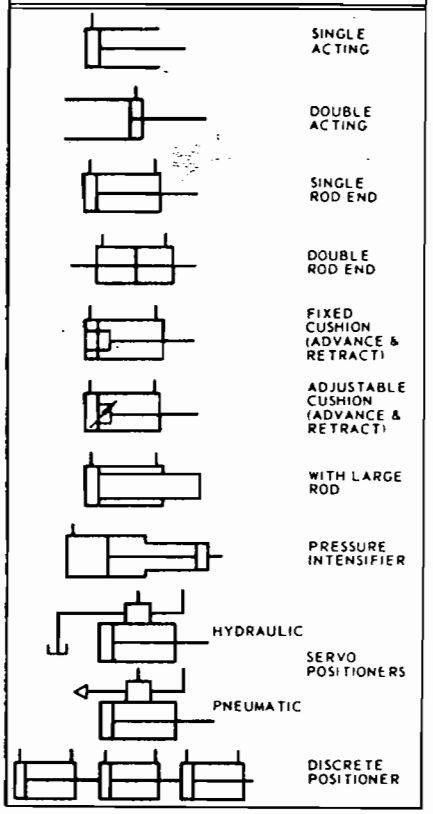
New symbols cross language barriers

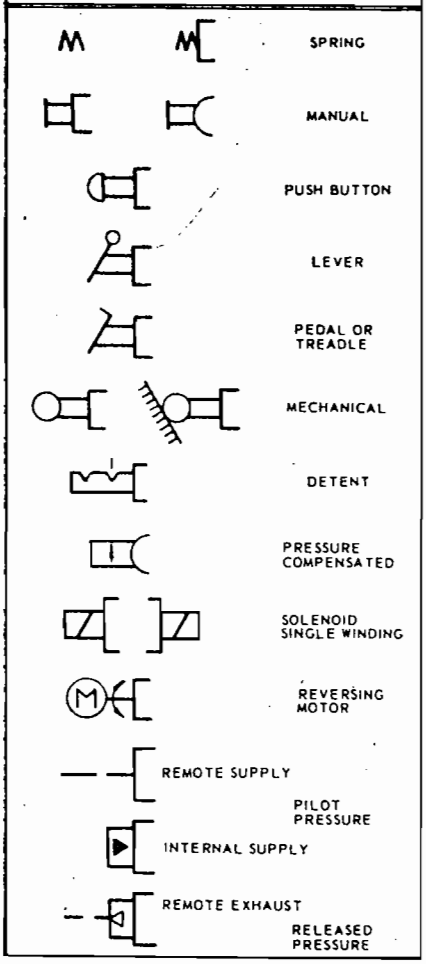
Approval for a revised set of fluid power symbols was recently granted by USASI. Although some are similar to the old JIC/ASA symbols, all words and letters have been deleted, so they are not now tied to the English language. Additionally, pneumatic and hydraulic components are now readily identified by either an open (pneumatic) or black (hydraulic) triangle. The following charts give all the commonly used symbols. The information was extracted from USAS Y32. 10-1967, published by ASME.



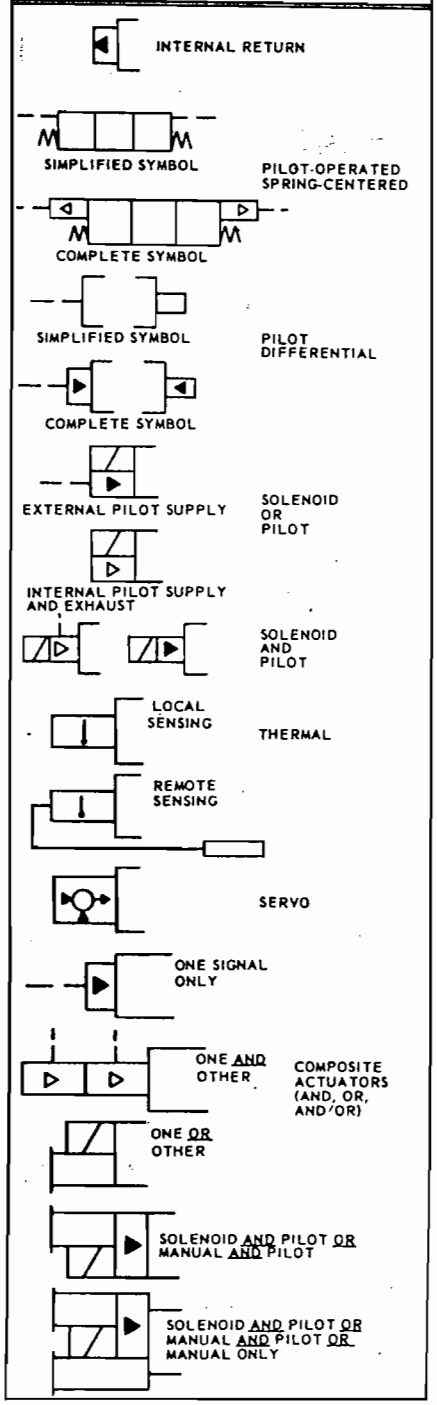
CYLINDERS



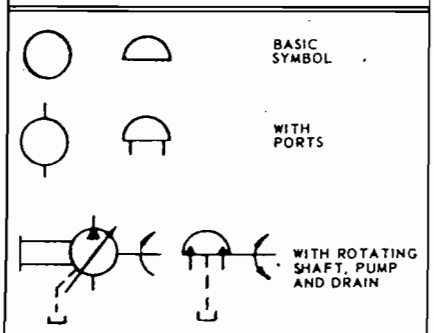
ACTUATORS & CONTROLS

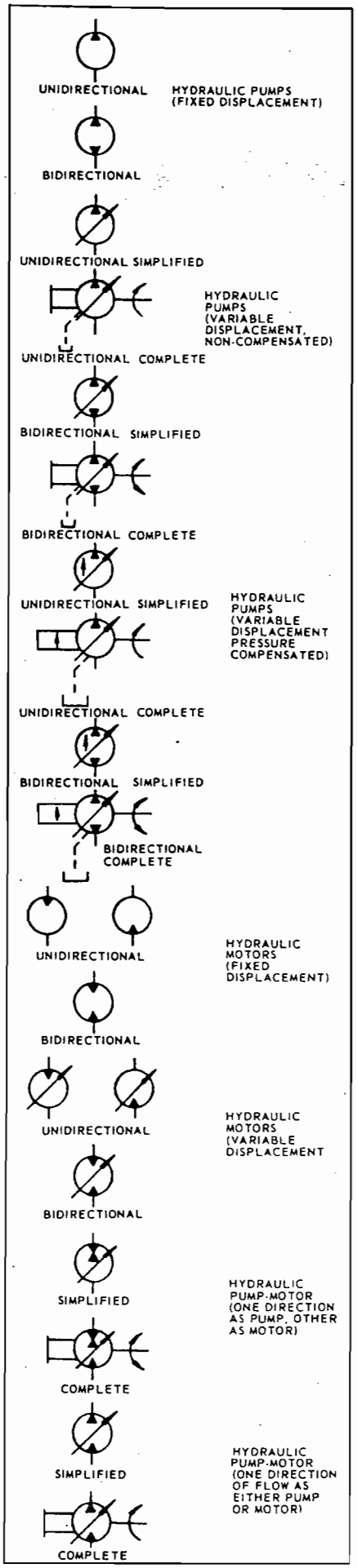


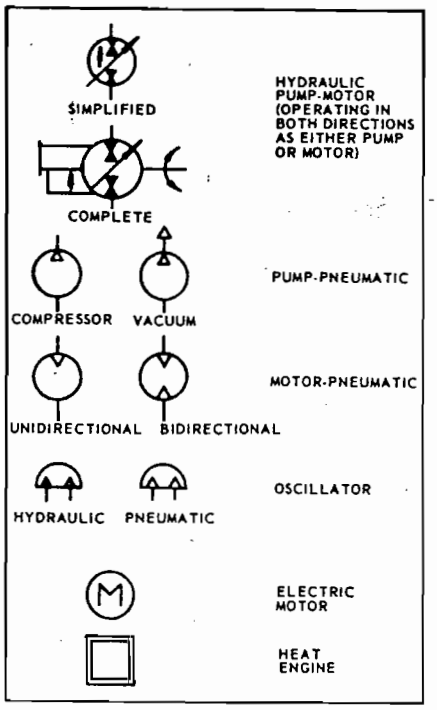
ACTUATORS & CONTROLS

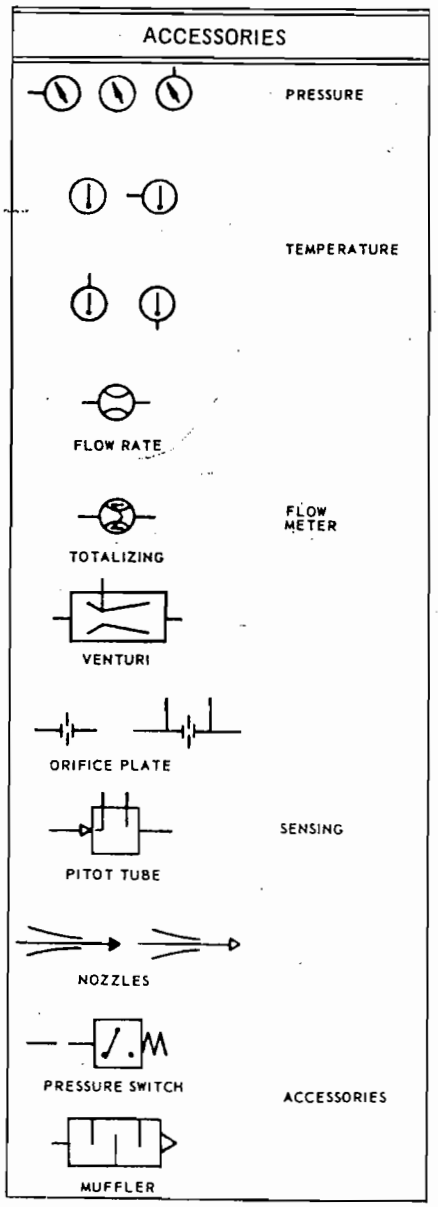


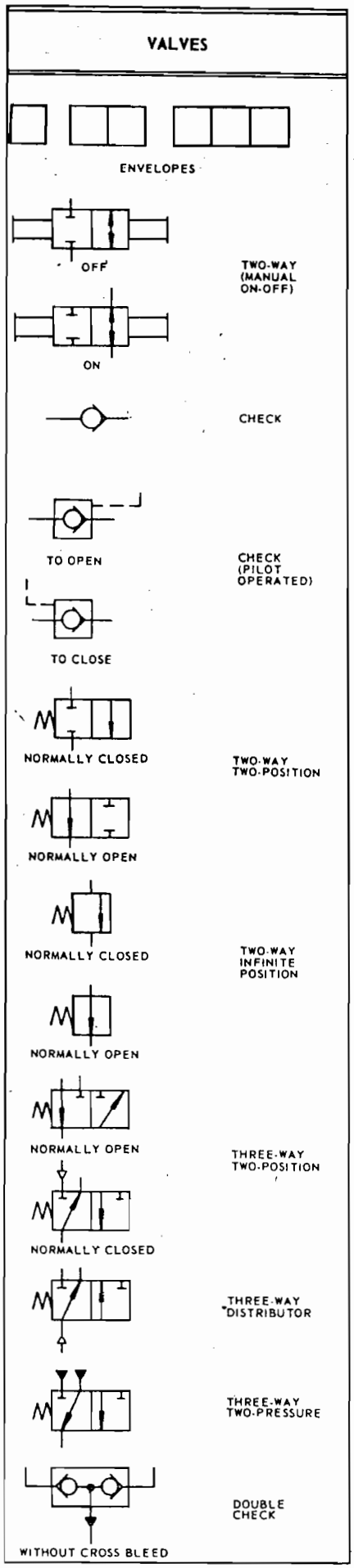
ROTARY DEVICES

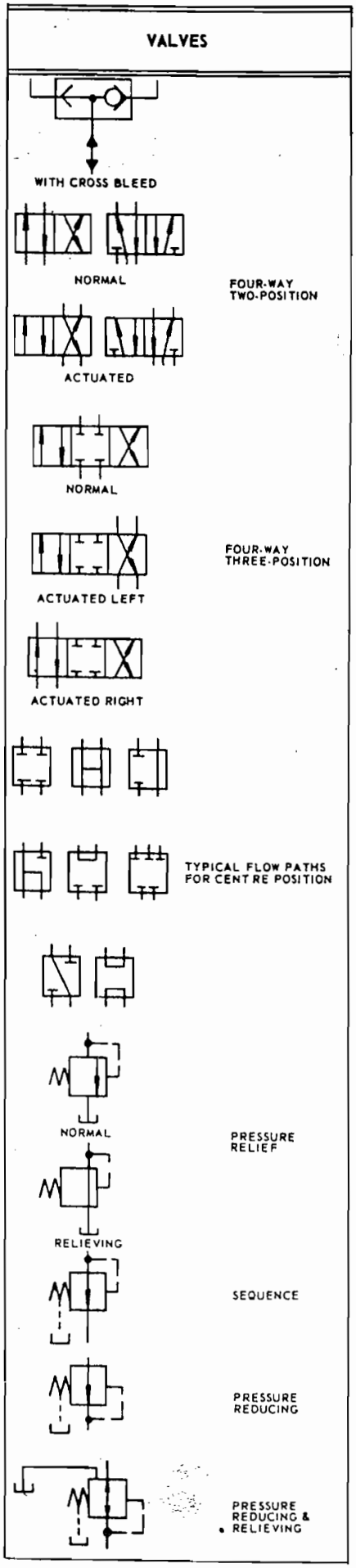





SIMPLIFIED
COMPLETE
HYDRAULIC PUMP-MOTOR (OPERATING IN BOTH DIRECTIONS AS EITHER PUMP OR MOTOR)
COMPRESSOR
VACUUM
PUMP-PNEUMATIC
UNIDIRECTIONAL
BIDIRECTIONAL
MOTOR-PNEUMATIC
HYDRAULIC
PNEUMATIC
OSCILLATOR
ELECTRIC MOTOR
HEAT ENGINE


ACCESSORIES
PRESSURE
TEMPERATURE
FLOW RATE
TOTALIZING
FLOW METER
VENTURI
ORIFICE PLATE
PITOT TUBE
SENSING
NOZZLES
PRESSURE SWITCH
ACCESSORIES
MUFFLER


VALVES
ENVELOPES
OFF
ON
TWO-WAY (MANUAL ON-OFF)
CHECK
TO OPEN
TO CLOSE
CHECK (PILOT OPERATED)
NORMALLY CLOSED
NORMALLY OPEN
TWO-WAY TWO-POSITION
NORMALLY CLOSED
NORMALLY OPEN
TWO-WAY INFINITE POSITION
NORMALLY OPEN
NORMALLY CLOSED
THREE-WAY TWO-POSITION
THREE-WAY DISTRIBUTOR
THREE-WAY TWO-PRESSURE
WITHOUT CROSS BLEED
DOUBLE CHECK


VALVES
WITH CROSS BLEED
NORMAL
ACTUATED
FOUR-WAY TWO-POSITION
NORMAL
ACTUATED LEFT
ACTUATED RIGHT
FOUR-WAY THREE-POSITION
TYPICAL FLOW PATHS FOR CENTRE POSITION
NORMAL
RELIEVING
PRESSURE RELIEF
SEQUENCE
PRESSURE REDUCING
PRESSURE REDUCING & RELIEVING