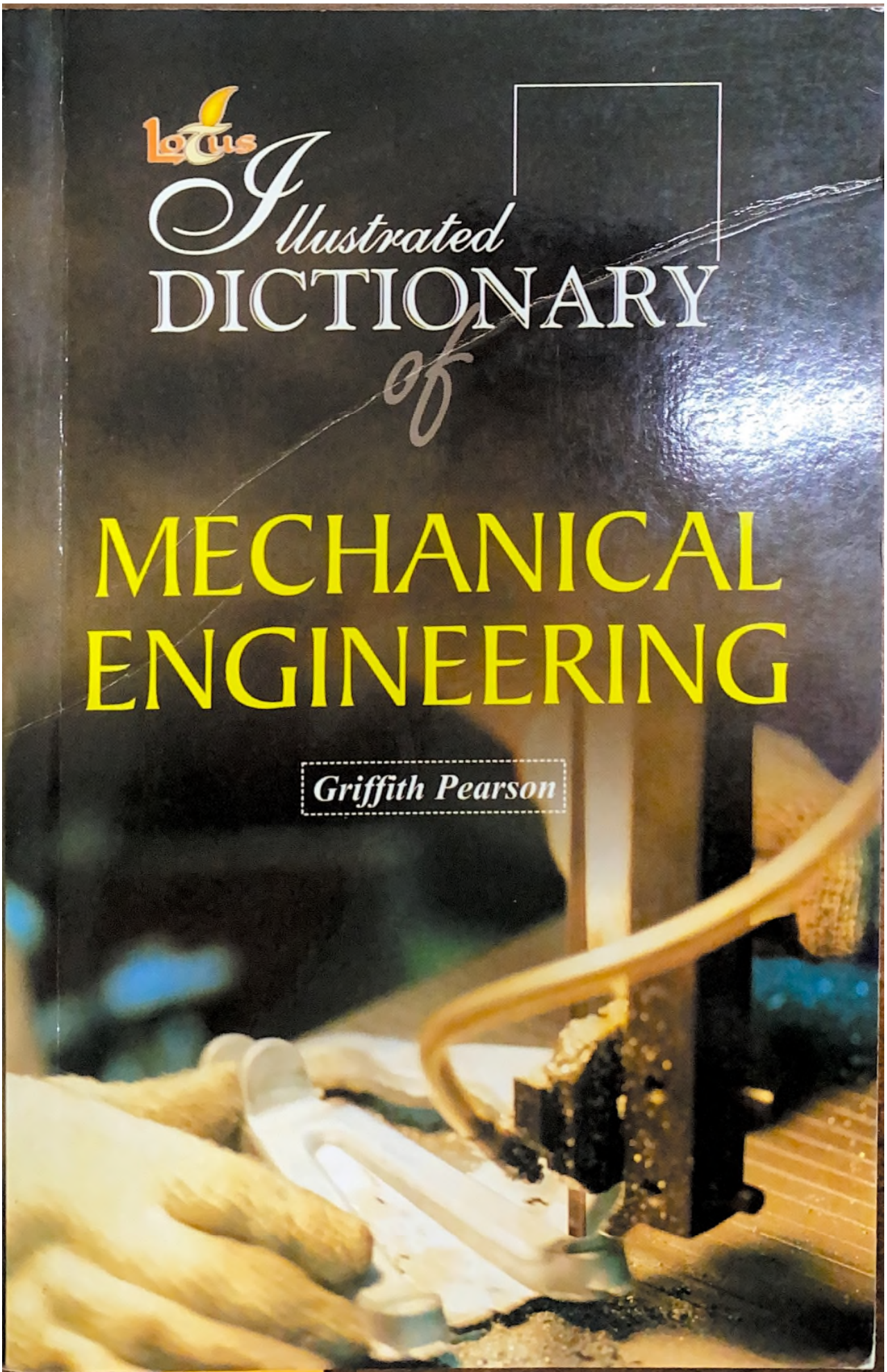




Illustrated
DICTIONARY
of

MECHANICAL ENGINEERING

Griffith Pearson



Lotus
Illustrated
DICTIONARY
of
**MECHANICAL
ENGINEERING**

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PREFACE

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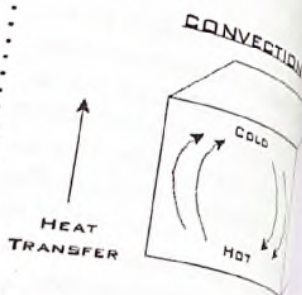
■ converter

a furnace in which a gas, or air, is blown through the metal bath or crude metal for the purpose of oxidising impurities

■ convey, vibratory

a materials-handling device usually with shakeout operation to help clean sand from the castings as they are moved from place to another in the foundry as a feeding device to regulate materials flow. Operations use vibrational energy.

circulation of a liquid may be natural, with convection caused by buoyancy due to temperature differences, or forced with circulation caused by a mechanical device such as a pump.



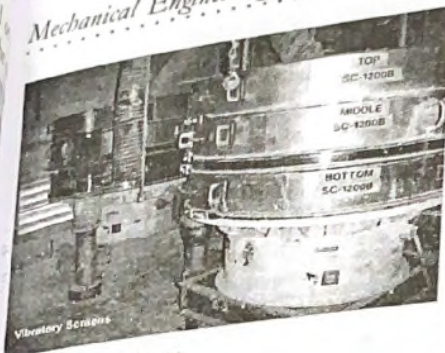
■ convection section

the portion of a heater, composed of a bank of tubes or coils, which receives heat from hot flue gases mainly by convection.

■ converging-diverging nozzles

are ducts in which the flow first decreases and then increases in the direction of the flow

Mechanical Engineering



■ convex hull

the surface of minimum area with convex (outward-bowing) curvature that passes through all the spatial points in a set. In three dimensions, this set must contain at least four non-coplanar points to make a closed surface with non-zero enclosed volume.

In Mechanics, the convex hull is an option for visualising a body. The set of points is all the Body coordinate system (CS) origins configured in that Body block. The visualisation of an entire machine is the set of the convex hulls of all its bodies.

If a Body has fewer than four non-coplanar Body CSs, its convex hull is a lower-dimensional figure: three Body CSs produce a triangle without volume; two Body CSs produce a line without area; and one Body CS (the CS at the centre of gravity) a point without length.

■ conveyor

a mechanical apparatus for carrying or transporting materials from place to place. Types include apron, belt, chain, gravity, roller, monorail, overhead, pneumatic, vibrating, etc.

convex hull | cooling capacity

■ conveyor belt

a continuously moving belt used in an automated or semiautomated foundry to move materials from one station to another.

■ conveyor screw

rotary worm-type blade used to move materials in automated core and mould making and other continuous sand-mixing operations.

■ conveyor, pallet

a materials-handling device that holds one or more moulds and transports them from the moulding station through pouring to shakeout.

■ conveyor, pneumatic tube

an air-tube means of moving materials from one place to another, primarily orders, light metal samples, and sand and other finely divided materials, as bentonite.

■ conveyor, roller

a line of conveyance in an automated or semiautomated foundry which employs a series of steel roller for moving objects.

■ conveyor, slat

a materials-handling device built on a continuous belt of metal slats that moves granular materials and castings throughout a foundry.

■ cooler

the largest of three water coolers surrounding the cinder notch of a blast furnace.

■ cooling capacity

is the rate of heat removal from the refrigerated space by a refrigerant