

FROM

Auto Repair *for* Dummies

Deanna Sclar

Don Donesley
Technical Advisor

1976

McGraw-Hill Book Company

New York

St. Louis

San Francisco

Düsseldorf

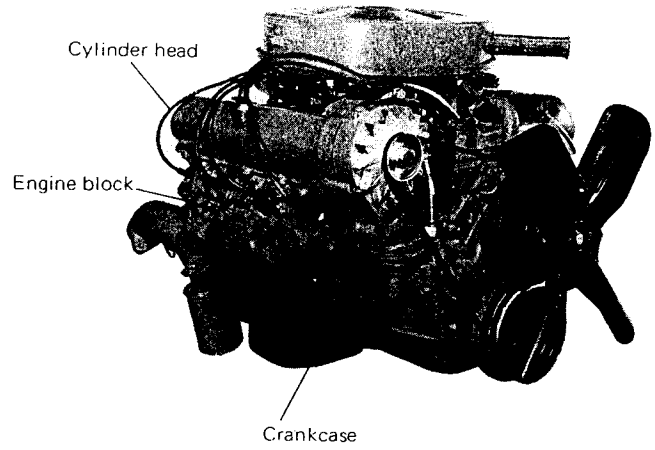
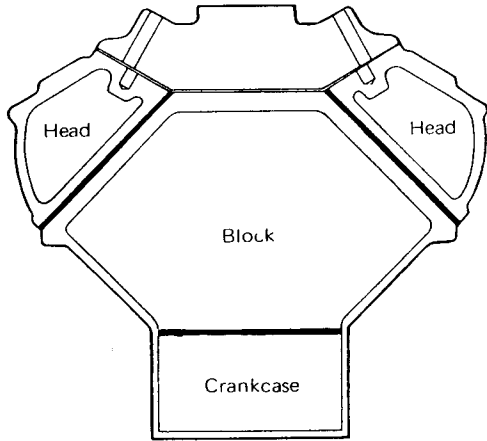
London

Mexico

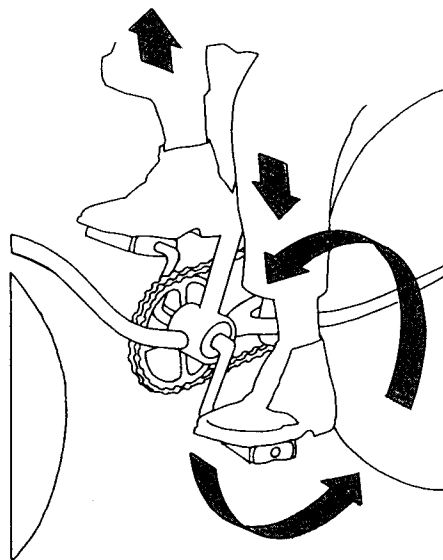
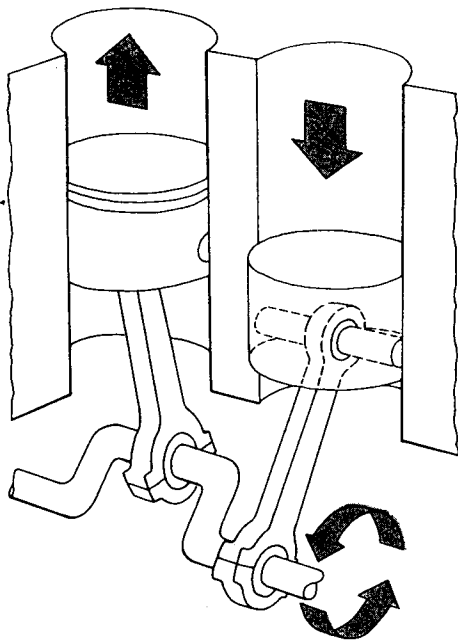
Sydney

Toronto

The Engine Block—Where the Action Is

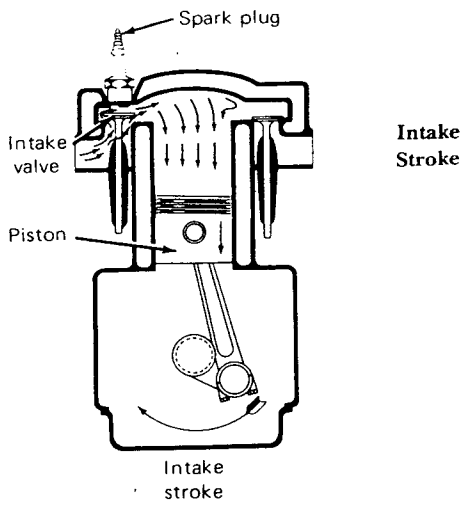


Cylinder Head, Engine Block,
Crankcase—The Main Parts of the Internal
Combustion Engine
Automotive Marketing Division, Dana Corp.

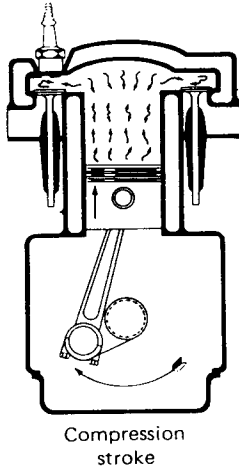


When you ride a bicycle, your knees move up and down to turn the pedals 'round and 'round—just as the pistons and connecting rods move up and down to turn the crankshaft in circles.
Jack Herlihy

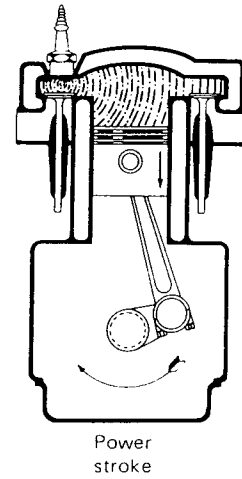
The Four-Stroke Power Cycle



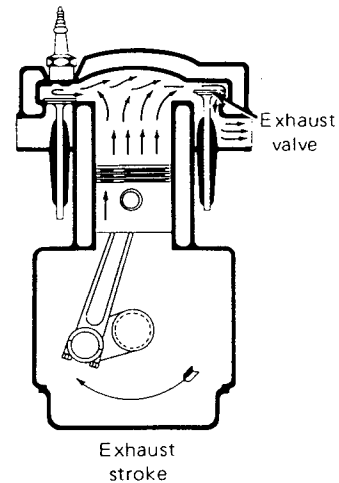
The Compression Stroke



The Power Stroke



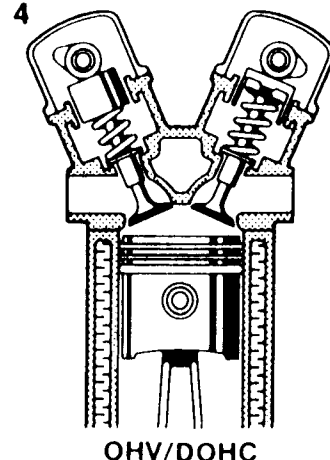
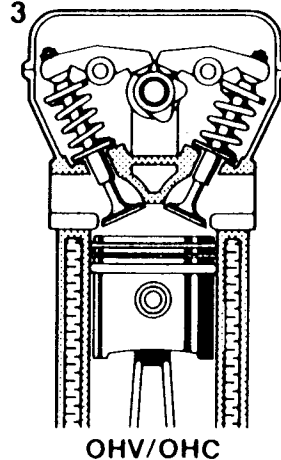
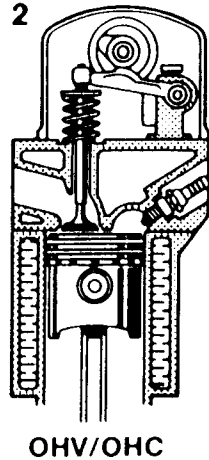
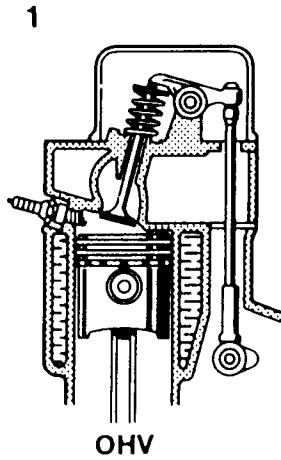
The Exhaust Stroke

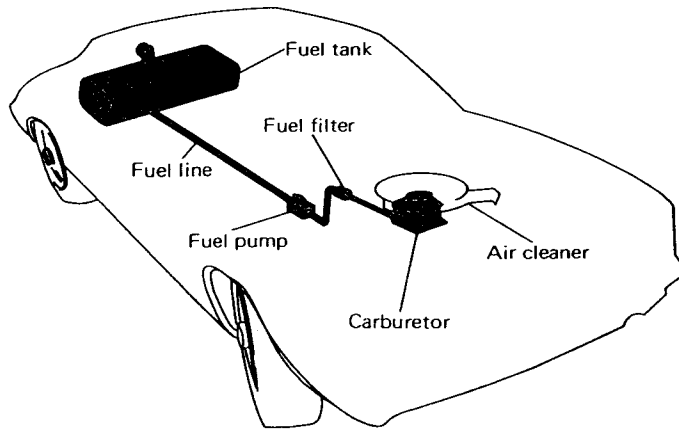


The Four-Stroke Power Cycle
Echlin Manufacturing Company

Valve timing-gear designs.

1 Push-rod assembly, 2 Finger follower or single rocker-arm assembly actuated by overhead cam, 3 Twin rocker-arm assembly actuated by overhead cam, 4 Overhead bucket tappet assembly. OHV = Overhead Valves, OHC = Overhead Camshaft, DOHC = Double Overhead Camshaft



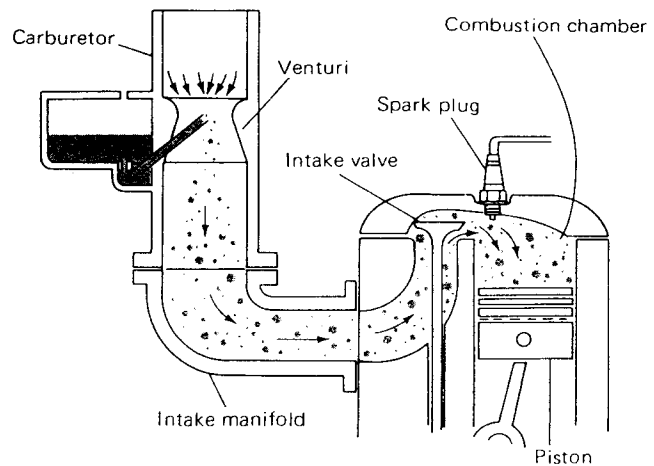
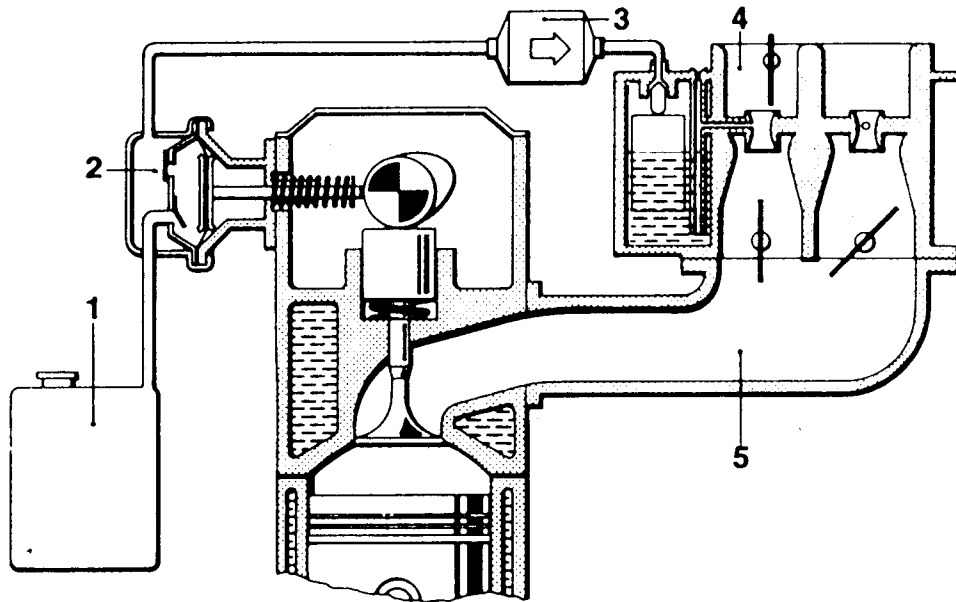


The Fuel System

The Fuel System
Automotive Information Council (AIC)

Diagram of a carburetor system.

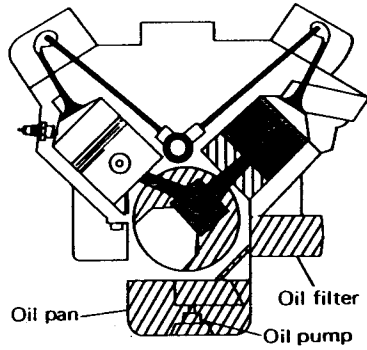
1 Fuel tank, 2 Fuel pump, 3 Fuel filter, 4 Carburetor, 5 Manifold.



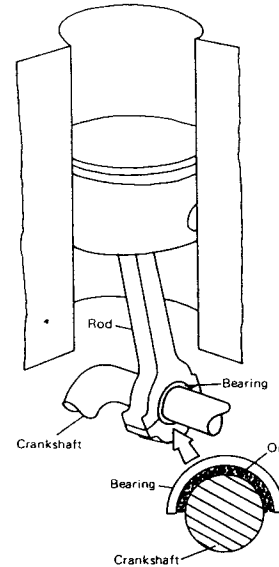
The Fuel/Air Mixture Travels from the Carburetor, Through the Intake Manifold, to the Combustion Chamber, Where Ignition Takes Place.
Echlin Manufacturing Company

The Lubrication System

The Engine



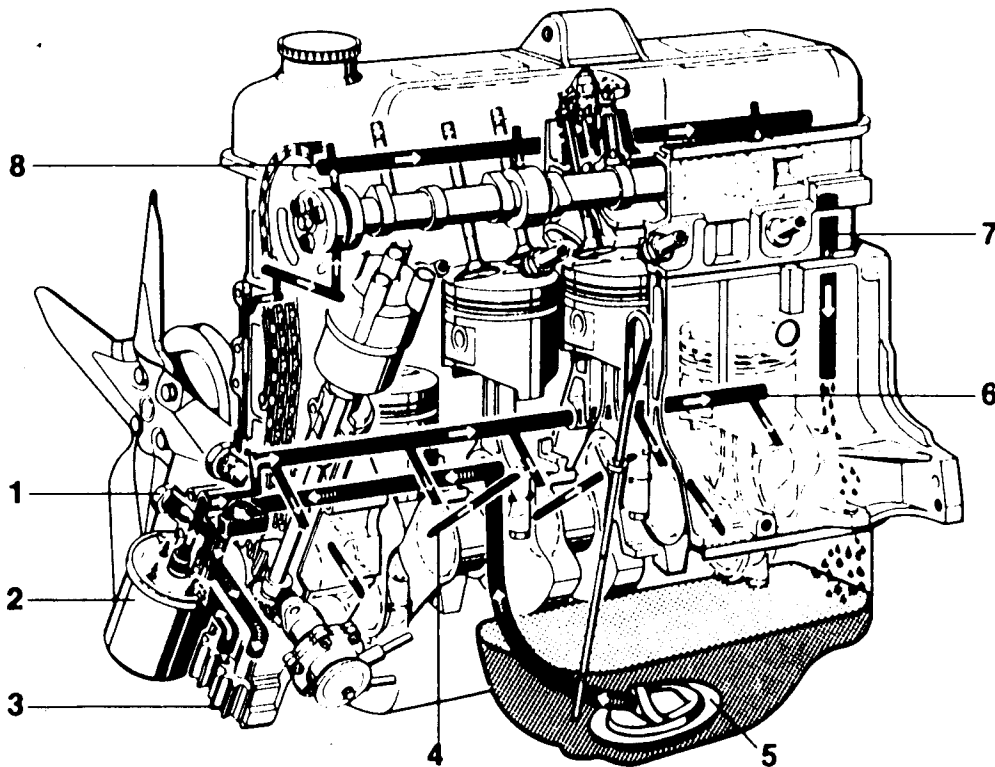
The Lubrication System
Automotive Information Council (AIC)



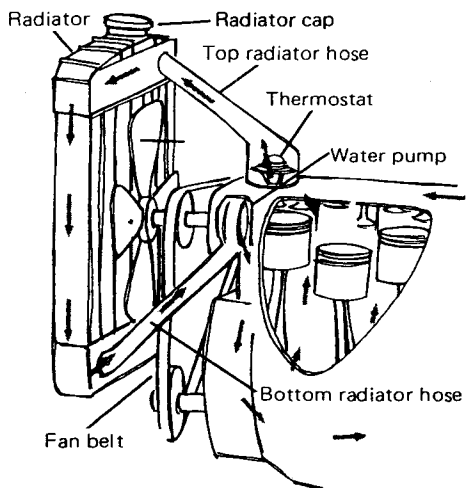
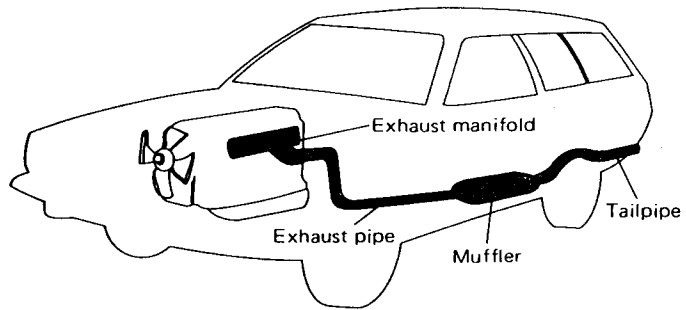
Oil Forms a Cushion to Keep Your Crankshaft and Your Connecting Rod from Wearing Each Other Away.
Jack Herlihy

Force-feed lubrication system.

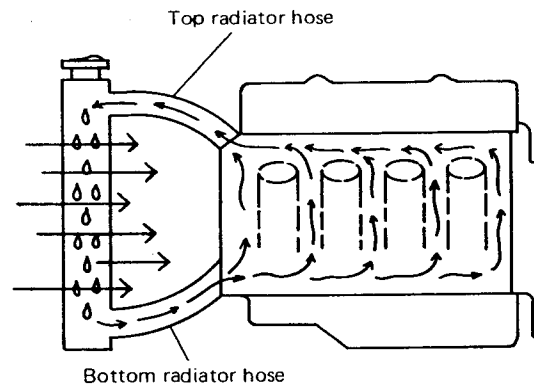
1 Pressure relief valve 2 Oil filter, 3 Gear pump, 4 From main bearing to connecting-rod bearing, 5 Suction strainer, 6 Main oil-pressure line to crankshaft bearings, 7 Return flow from timing-gear case to crankcase, 8 To camshaft bearings.



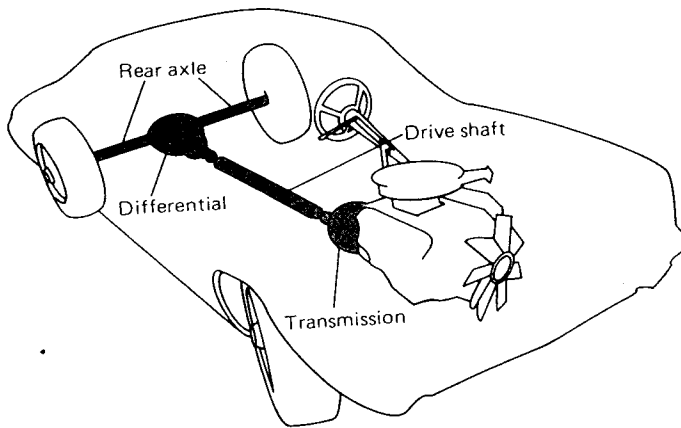
The Exhaust System
Automotive Information Council (AIC)



The Cooling System
Automotive Information Council (AIC)

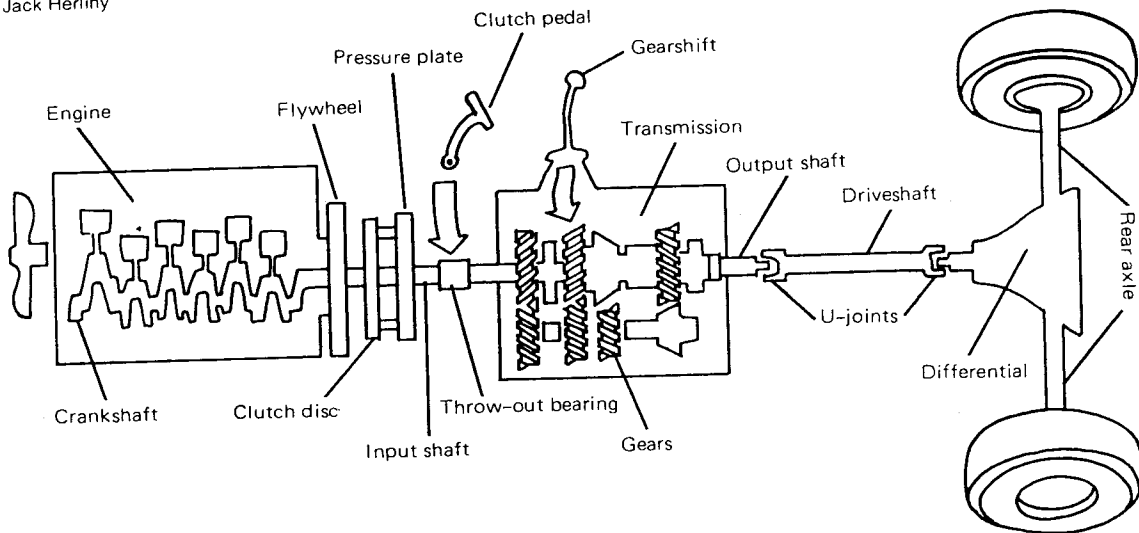


Water Circulates Between the Radiator and the Engine via the Radiator Hoses.
Jack Herlihy

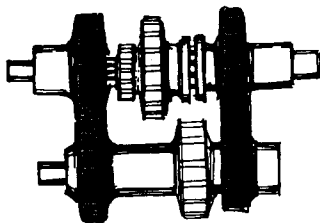


The Drive Train
Automotive Information Council (AIC)

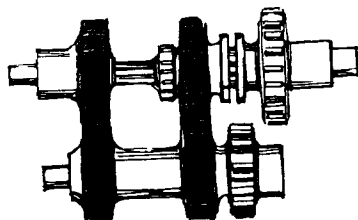
The Drive Train
Jack Herlihy



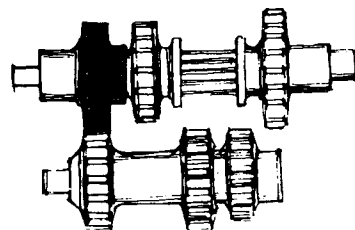
Low Gear



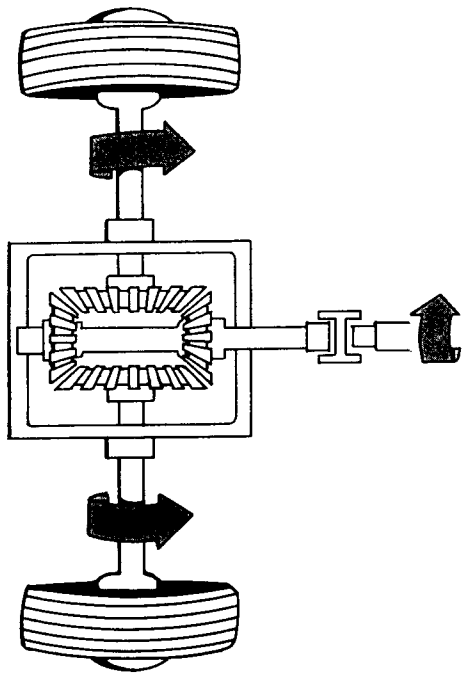
Second Gear



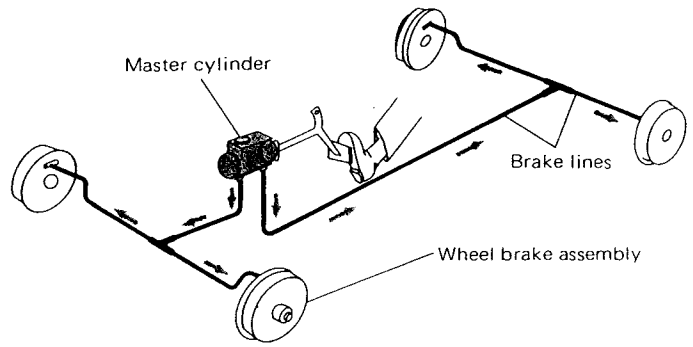
High Gear



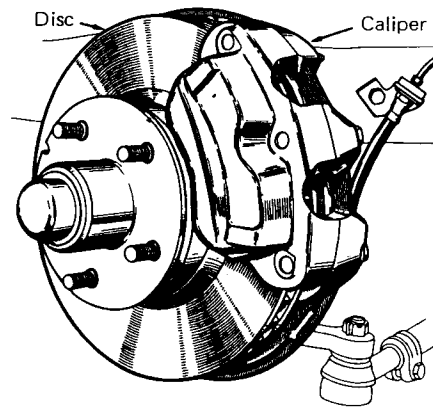
Cutaway of 3-Speed Manual Transmission
Gears
Automotive Information Council (AIC)



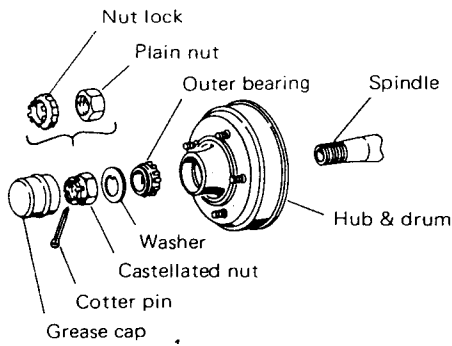
The Differential Makes the Axle and the Rear Wheels Move at Right Angles to the Spinning Driveshaft.
Jack Herlihy



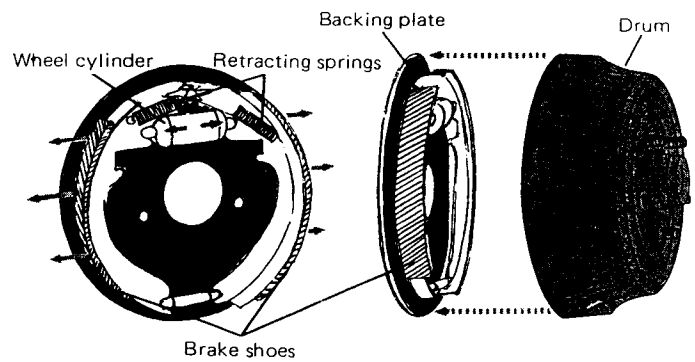
The Braking System
Automotive Information Council (AIC)



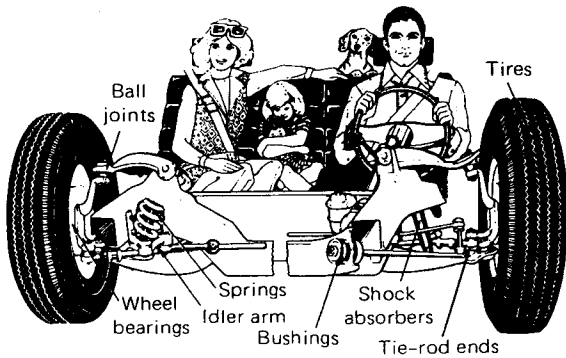
A Typical Disc Brake
The Bendix Corp.



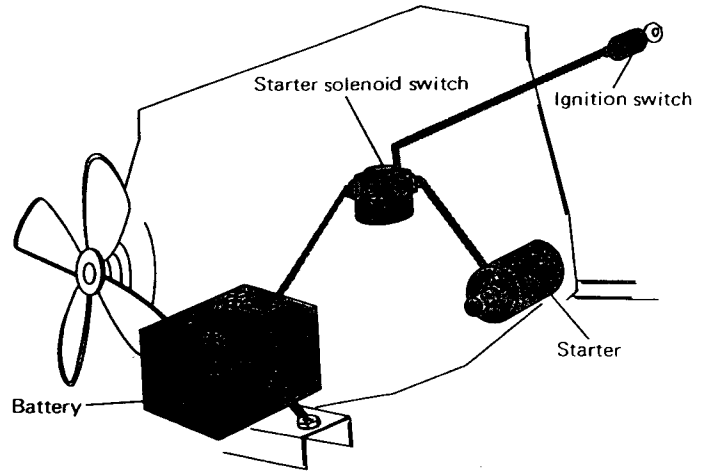
The Things You Have to Remove to Get at Your Brakes
Delco Moraine Division, General Motors Corp.



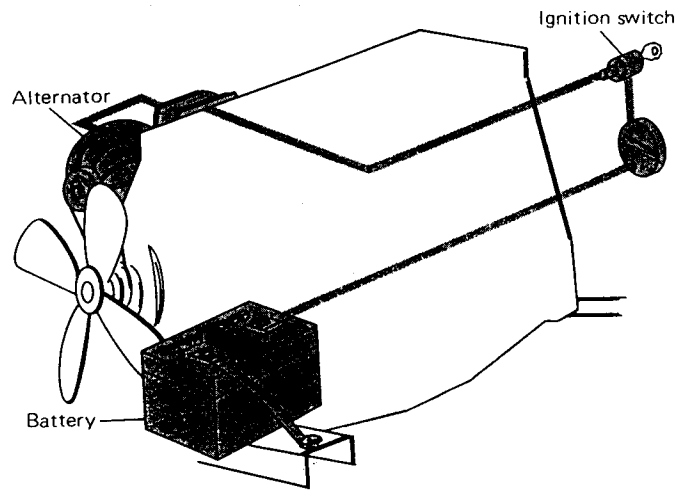
Drum Brake
Automotive Information Council (AIC)



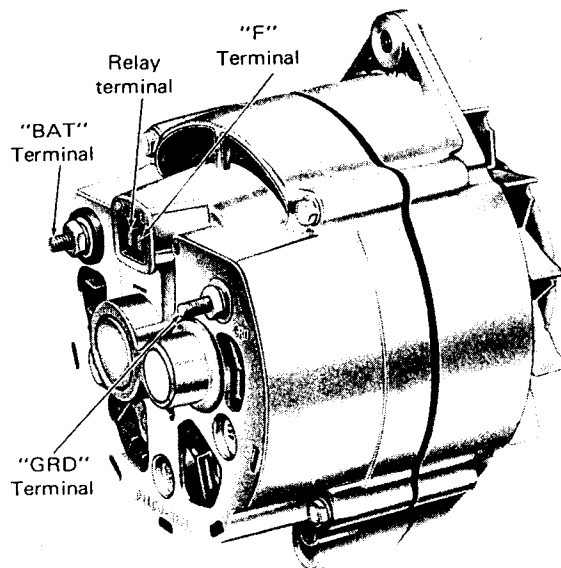
Where Most of the Movement Takes Place
When You Drive
Moog Automotive, Inc., St. Louis, Missouri



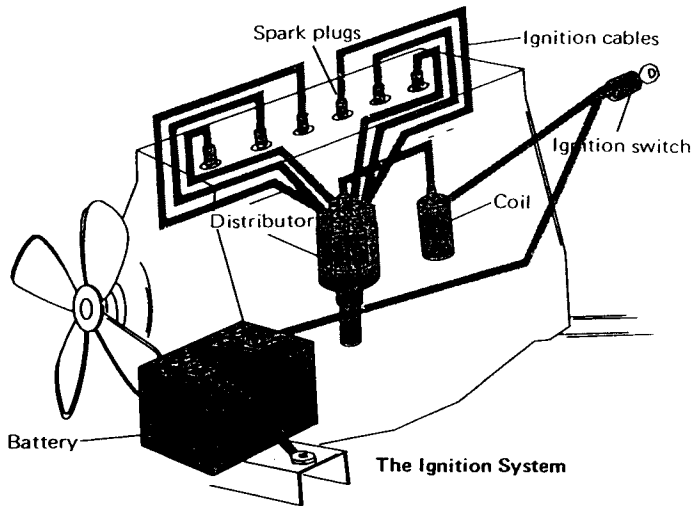
The Starting System
Automotive Information Council (AIC)



The Charging System
Automotive Information Council (AIC)



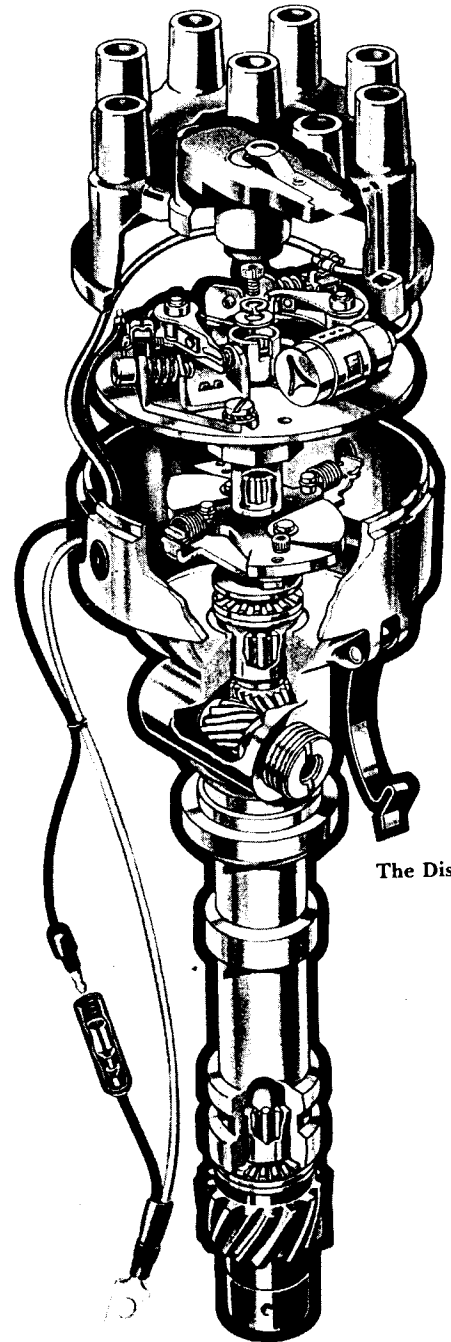
Alternator
Delco-Remy Division, General Motors Corp.



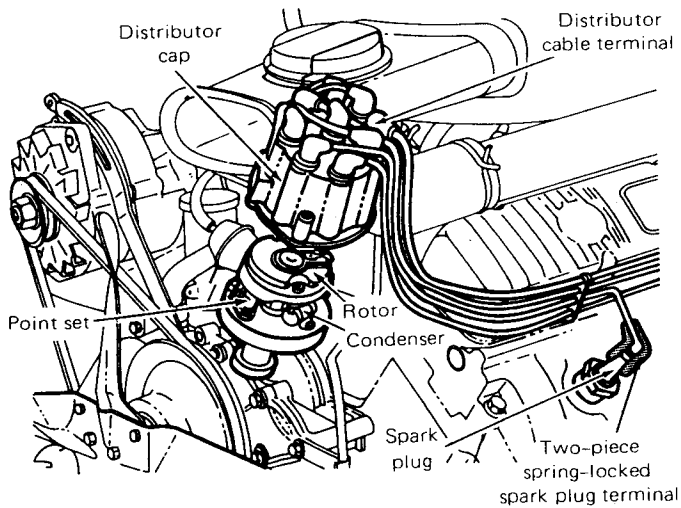
The Ignition System

The Ignition System
Automotive Information Council (AIC)

Traditional Ignition System
Guaranteed Parts Company



The Distributor



Anatomy of a Distributor
ACCEL, Division of Echlin Manufacturing Co.