UNIT 1

Layout of Two wheelers

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Layout of a Moped

- Also known as moppets
- Short distance travel
- Single passenger or with a pillion
- Equipped with pedals
- Tiny Vehicles
- Tough frame
- Small Capacity engine

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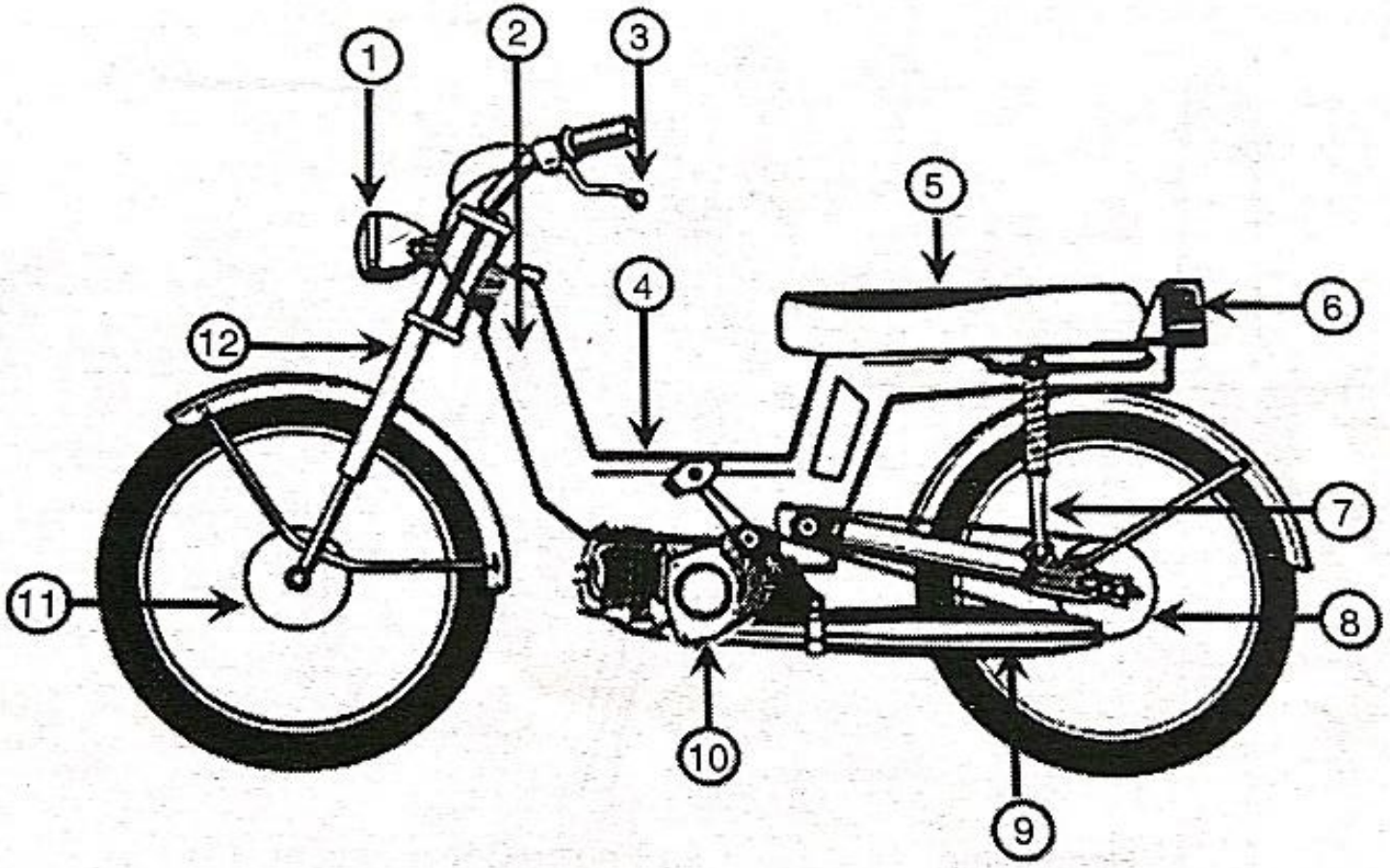
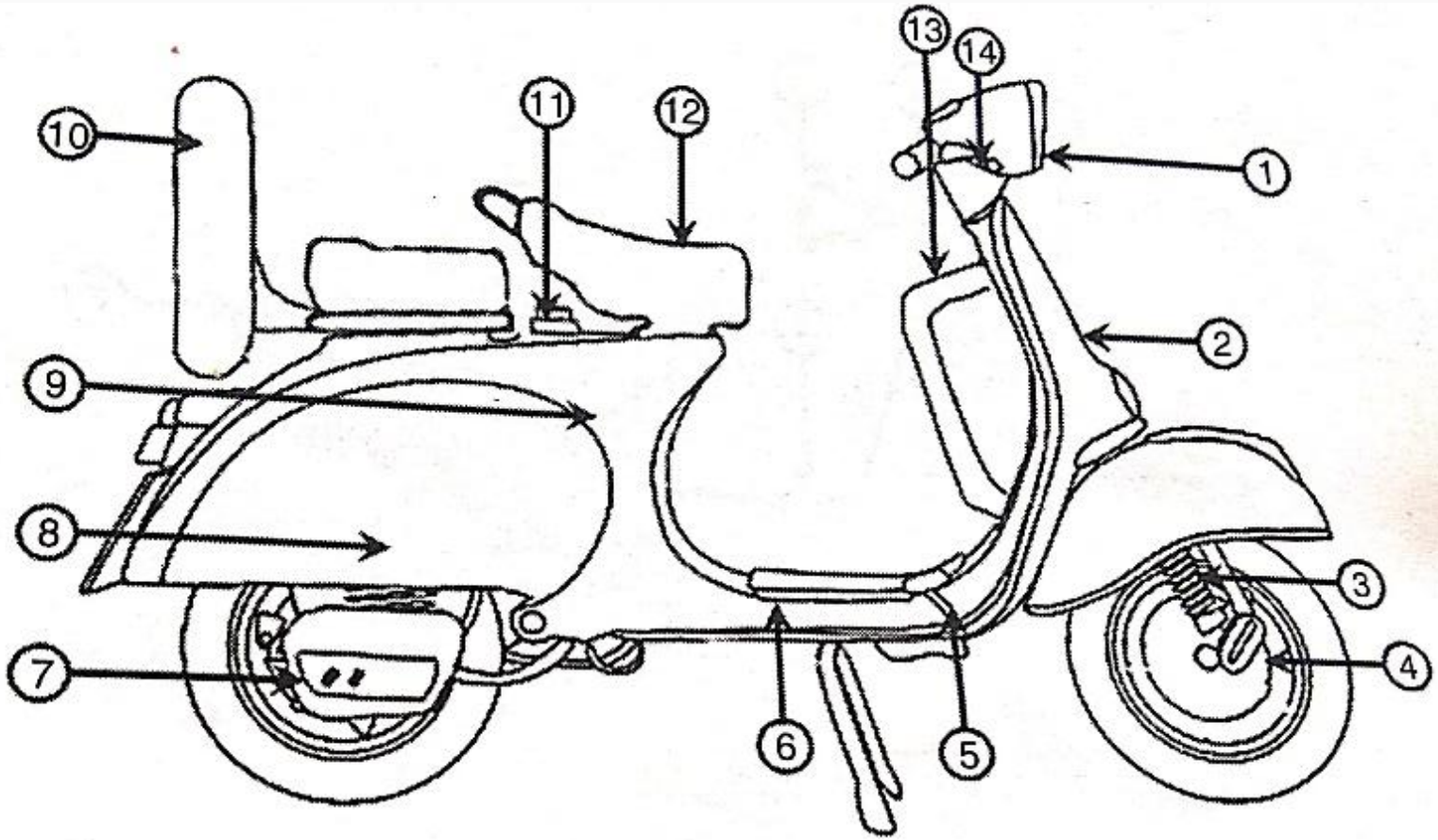


1. Head Lamp
2. Fuel Tank
3. Brake Lever
4. Frame/Body
5. Seat
6. Tail Lamp
7. Rear Suspension
8. Rear Brake
9. Exhaust
10. Engine with Pedal
11. Front Brake
12. Front Suspension

Scooters

- Faster than mopeds
- Equipped with one single unit consisting of engine and transmission
- Leg shield
- 4 stroke single cylinder engine
- Medium power
- Engine is located in rear
- Can be used for longer distance compared with mopeds
- Manual transmission and CVT types



1. Head Lamp
2. Front Dome
3. Front Suspension
4. Front Brake
5. Rear Brake Lever
6. Foot Board
7. Exhaust
8. Engine Compartment
9. Body
10. Spare Wheel
11. Fuel Tank (Below Seat)
12. Seat
13. Storage Space
14. Front Brake Lever

- Streamlined Backbone type integrated Chasis
- Chasis is fabricated with Steel tube, Pressed steels Which are electrically welded.
- Modern scooters use CVT ie. Continuously variable transmission.
- Electric start as well as kick start

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Motorcycle

- Fitted with medium to high powered engines
- Long journeys
- Engine is located in the middle of the vehicle
- Controlling and handling is easy
- Classified As
  - Street Commuter bike
  - Endure Bike (dirt bike)
  - Cruiser bike
  - Sports Bike

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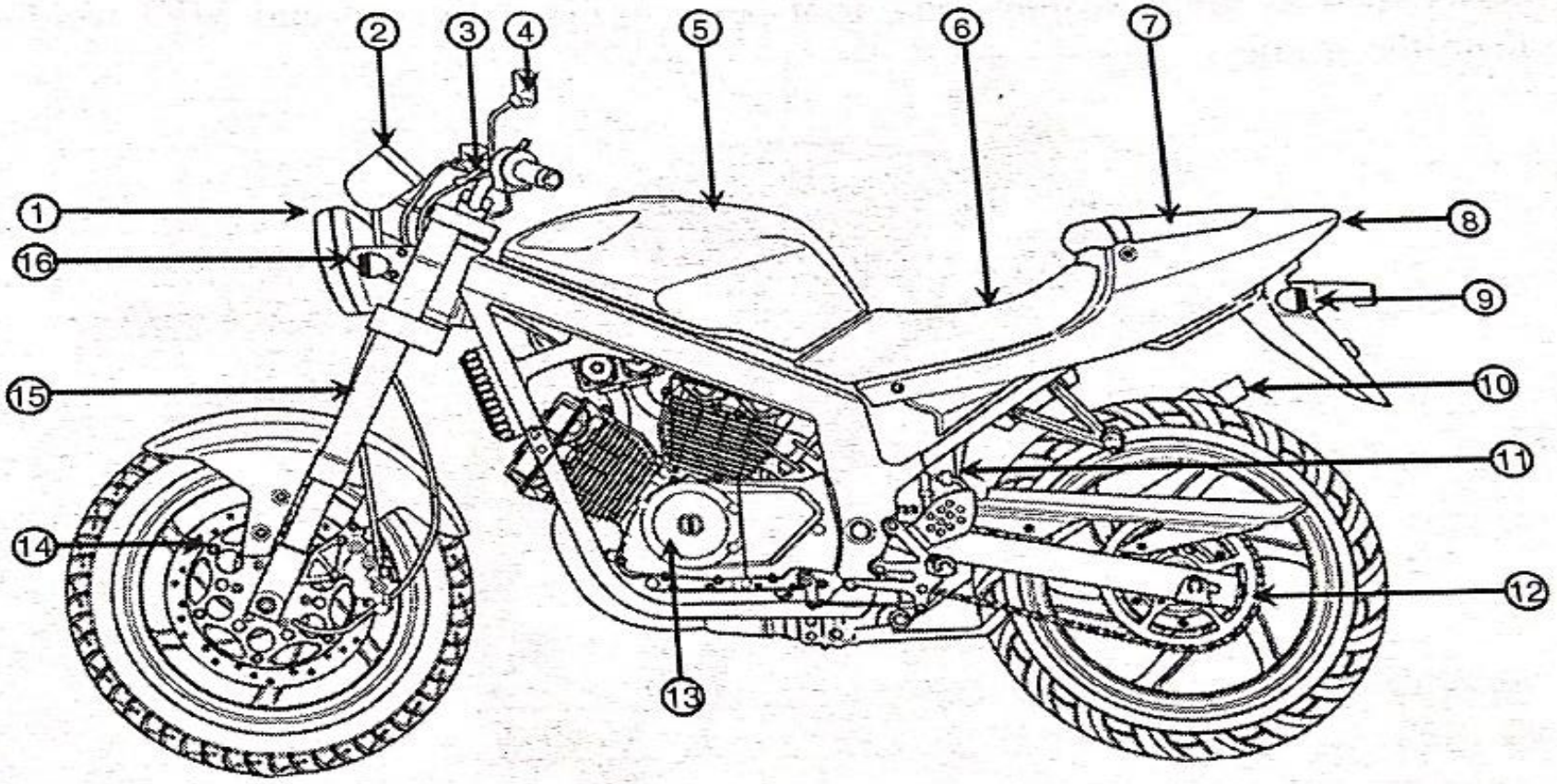

1. Head Lamp
2. Instrument Panel
3. ORVM
4. Clutch Lever
5. Fuel Tank
6. Seat
7. Pillion Seat
8. Tail Lamp
9. Rear Turn Indicator
10. Exhaust
11. Rear Suspension
12. Chain Drive
13. Engine
14. Front Brake
15. Front Suspension
16. Front Turn Indicator

- Tubular, pressed steel or engine based chassis.
- Motorcycle frame provides a strong rigid structure which is to attach component necessary to make up the machine.
- Powerful engine.
- Kick start and electric start.
- Higher fuel storage.

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Basic systems

- The Frame
- Wheels and brake
- Suspensions
- Engine
- Drive Line
- Fuel System
- Ignition system
- Electrical System

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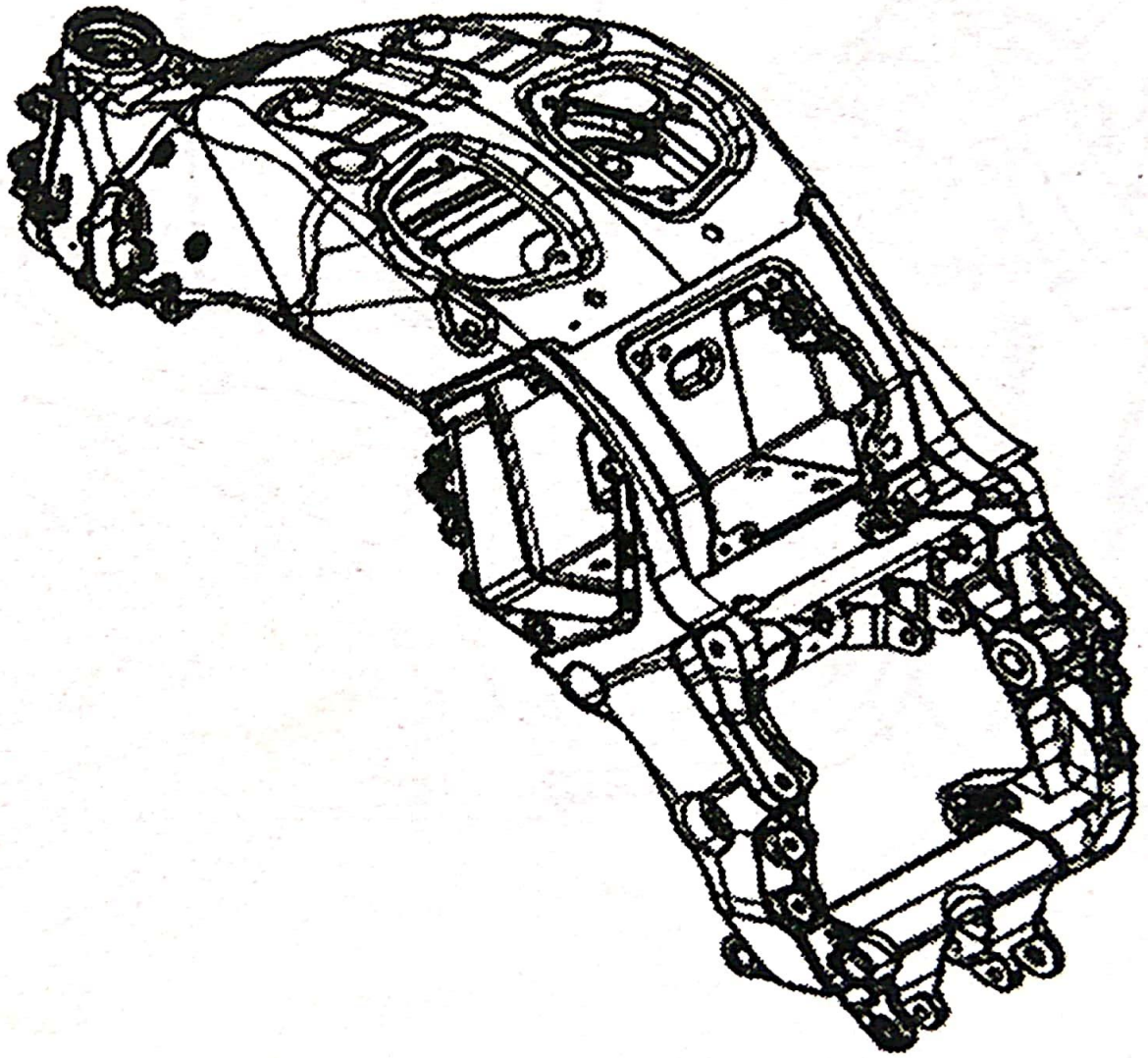
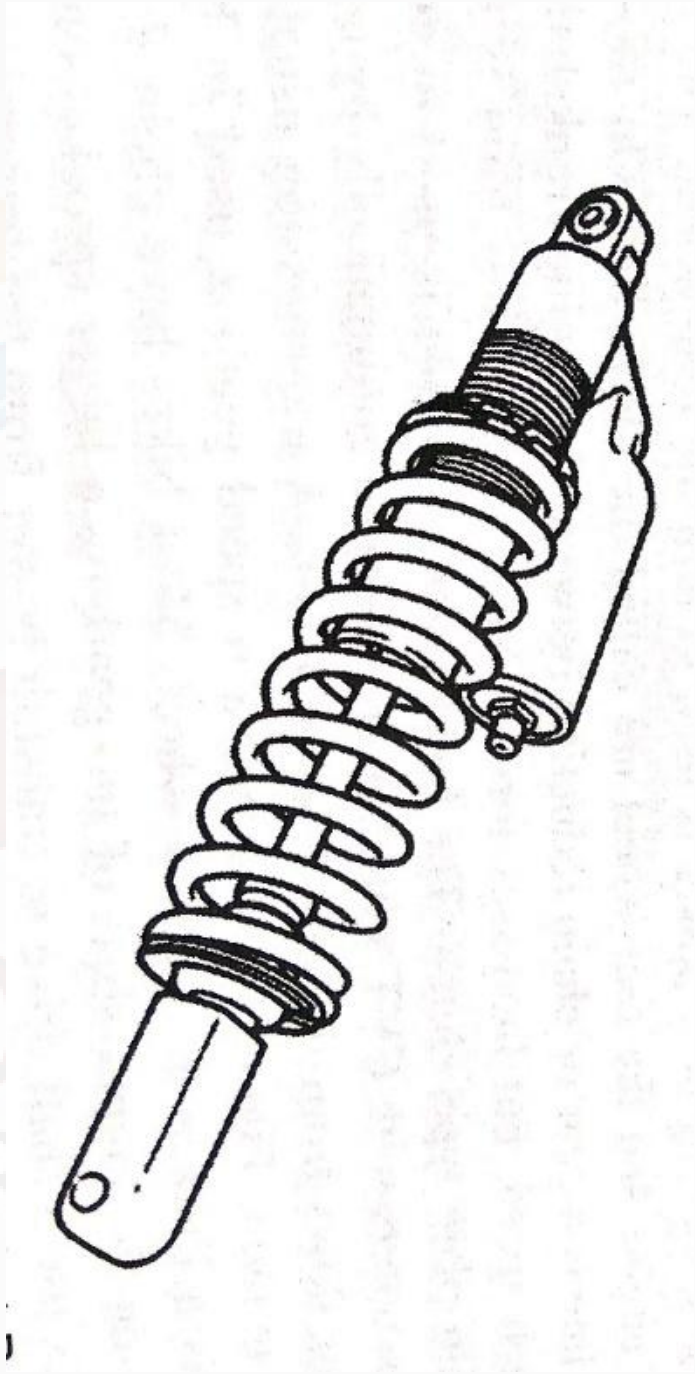
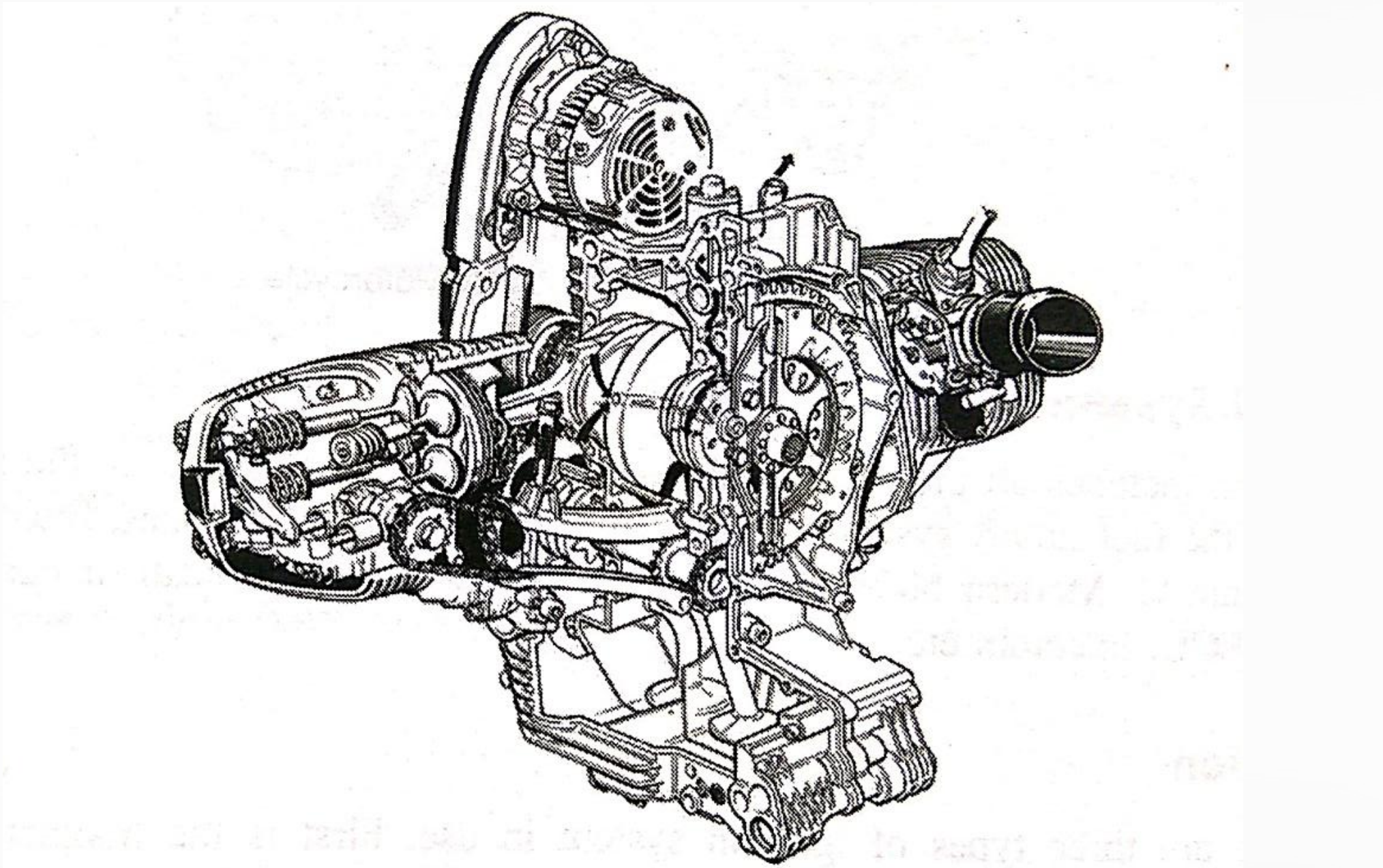
Frame



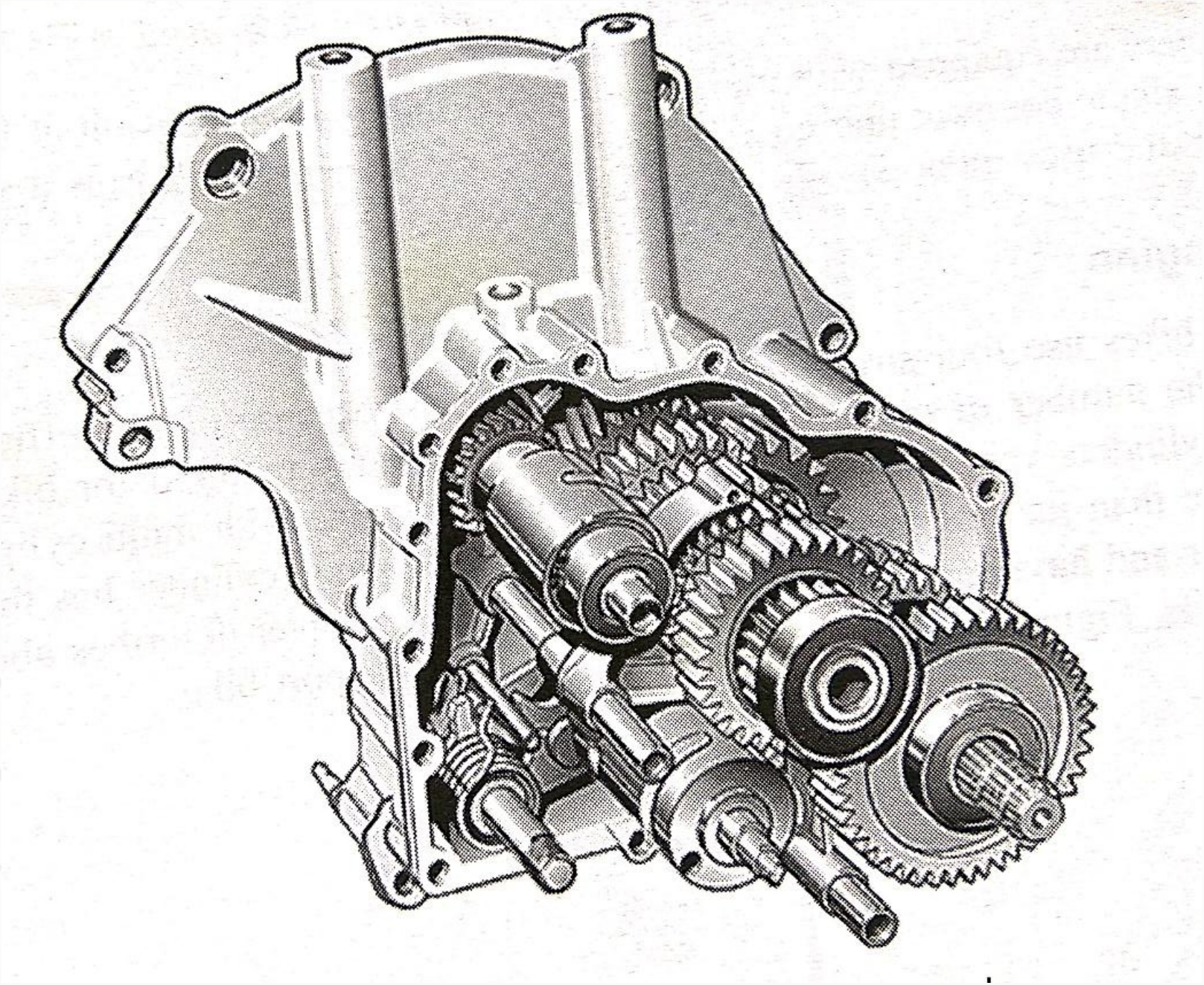
Mono Shock suspension



Engine



Drive train



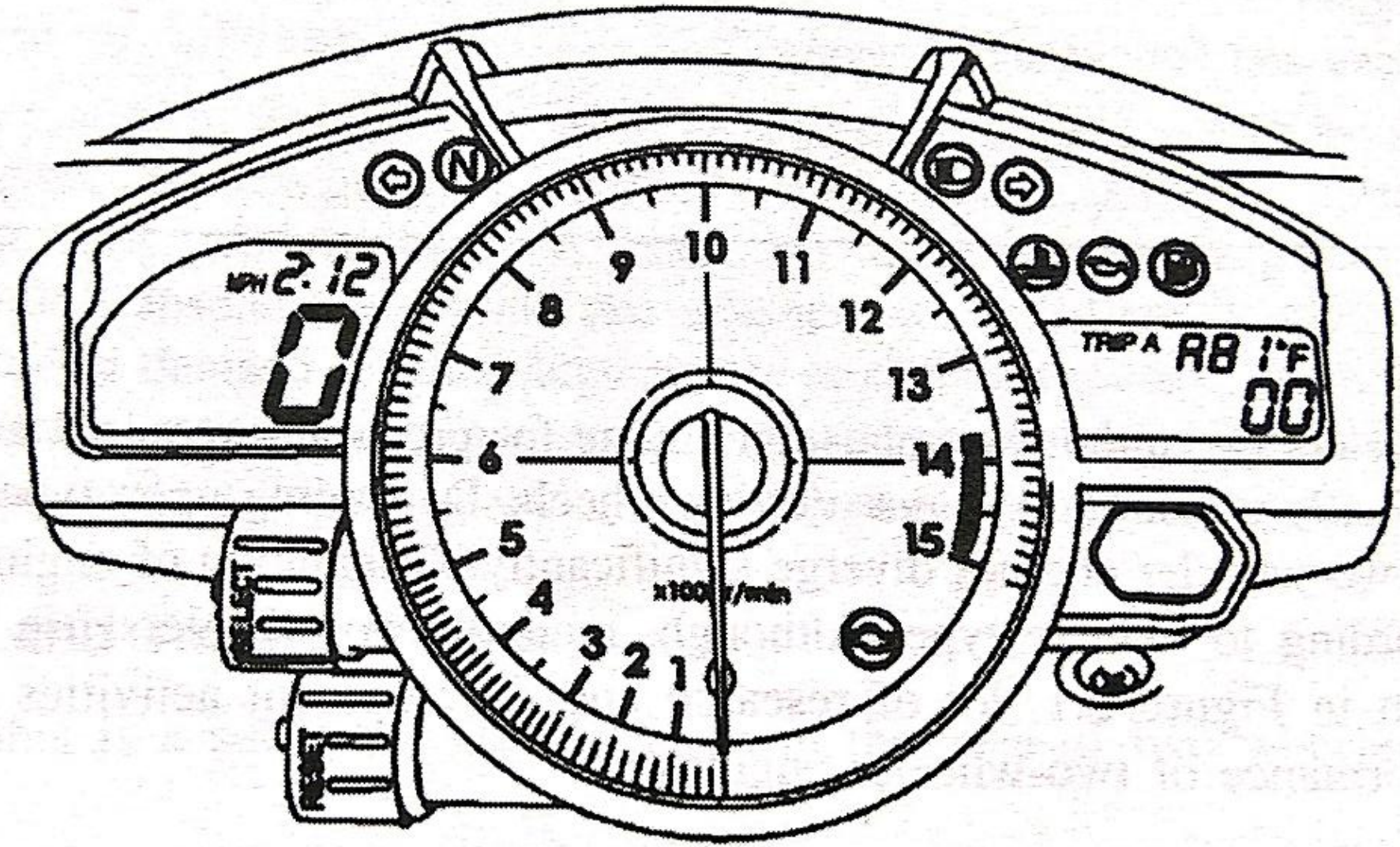


Figure 1.34 Indicators of High Performance Sport Bike.