

BACKACTORS

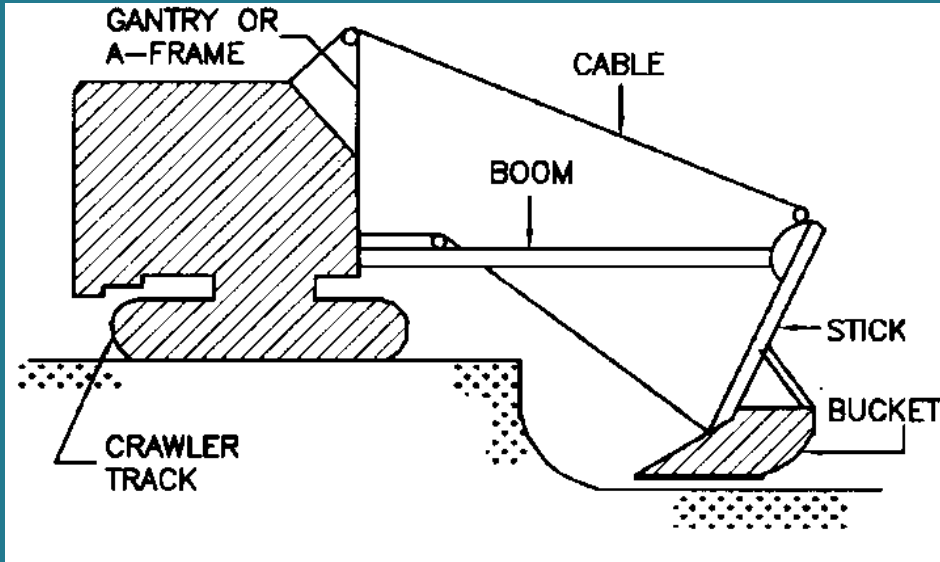


- Subject: Advanced Building Construction & Services
- Topic: Backactors
- Presented by: Balraj Marjara

- ▶ These are used to excavate below the natural surface of the ground on which the machine rests. They are useful for excavating trenches, pits for basements and swimming pools, and the machine can handle general grading work.

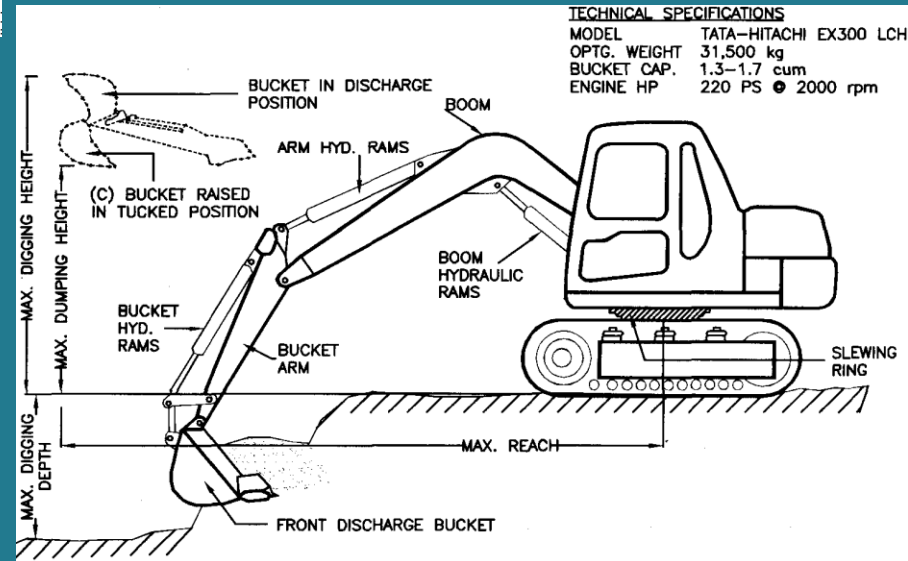


They are available as –

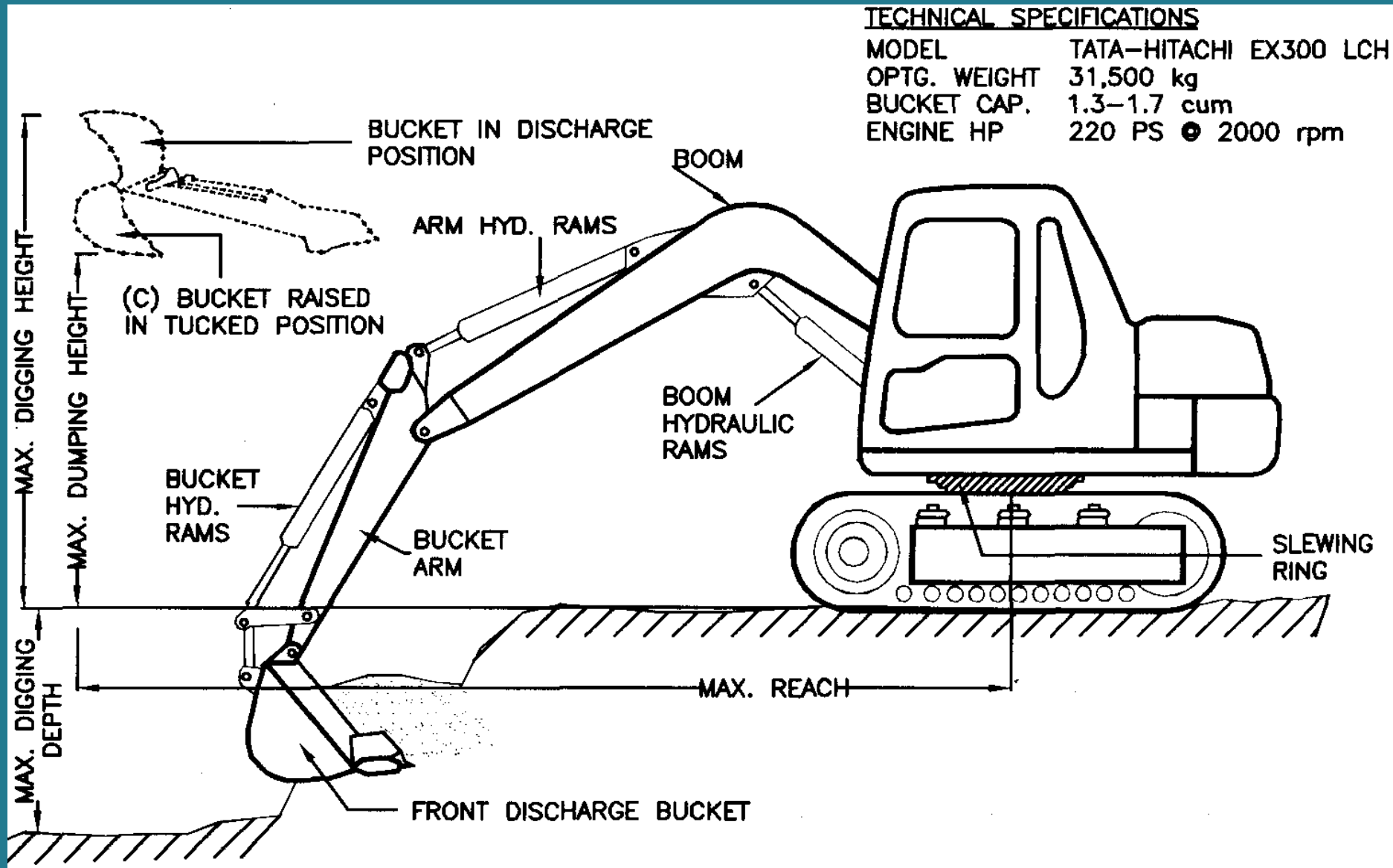


Universal power unit (wire rope controlled)

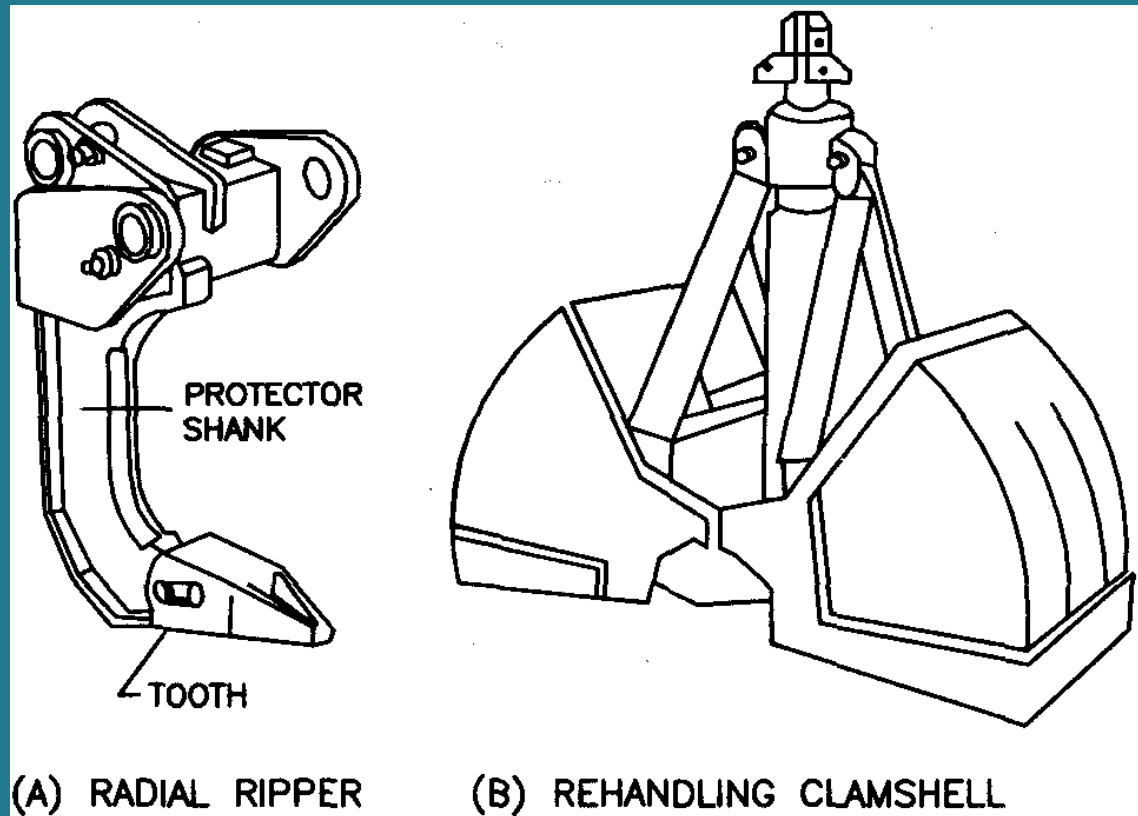
Hydraulic unit



The basic parts of a hydraulic backhoe are :-



- ▶ **Multipurpose Tool Option :**
- ▶ Ditch cleaning bucket
- ▶ Rehandling clamshell
- ▶ Backfill blade
- ▶ Impact hammer
- ▶ Rock ripper
- ▶ Auger
- ▶ Grapple
- ▶ Rock drill



▶ **Production Cycle Time:**

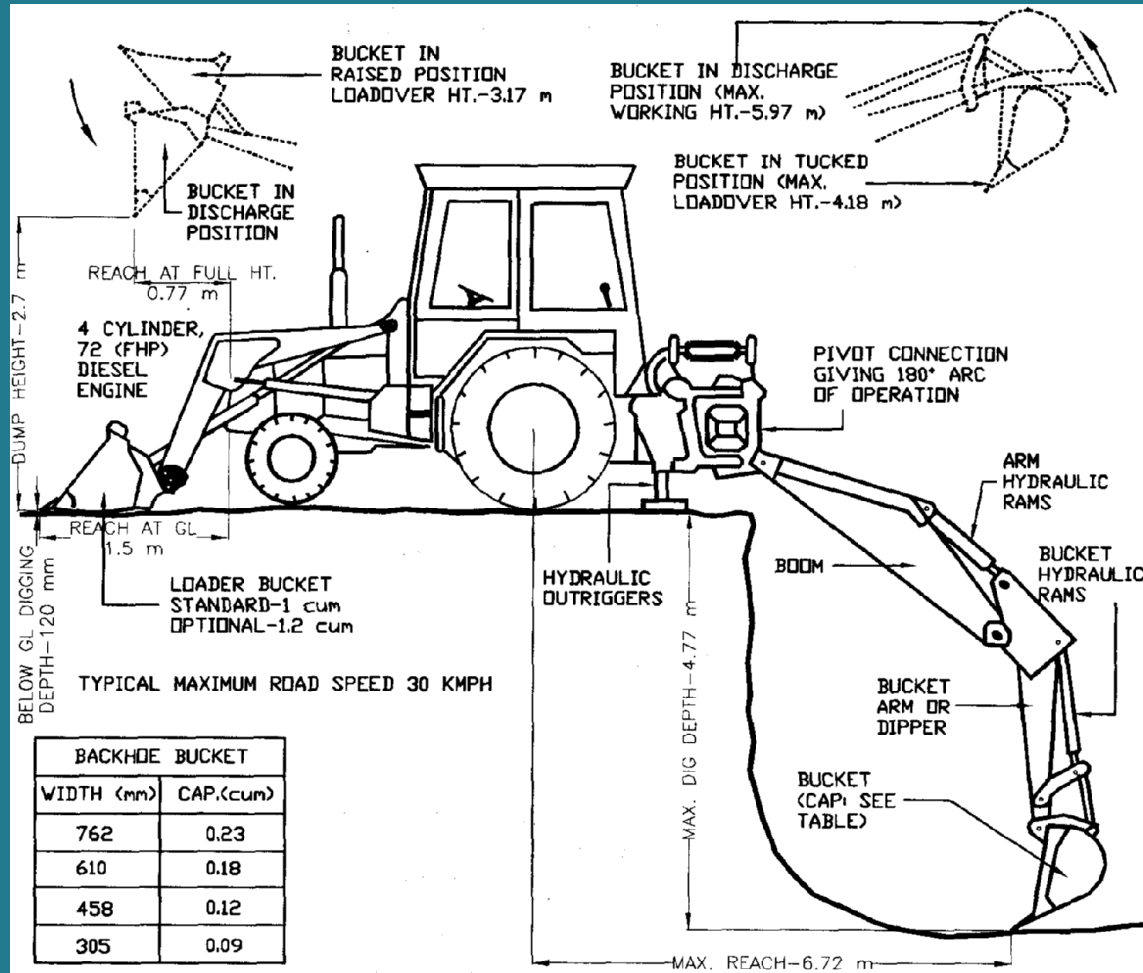
The elements that constitute the production cycle include the time taken to

- ▶ (a) load bucket,
- ▶ (b) swing loaded,
- ▶ (c) dump bucket,
- ▶ (d) swing empty.

Optimum depth of cut for a backhoe will depend on the type of material being excavated and bucket size and type. As a rule, the optimum depth of cut for a hoe is usually in the range of 30 to 60 % of the maximum digging depth of the machine.

Manufacturers:

- ▶ Telcon has the major share of market
- ▶ L & T
- ▶ Ammann-Yanmar
- ▶ Volvo
- ▶ Ford Motor Company
- ▶ Hitachi Construction
- ▶ BEML
- ▶ Caterpillar
- ▶ JCB



Each manufacturer has a wide range of models to choose from.

Characteristics of Backhoes

Parameter	Bucket capacity m ³	Maximum Cutting Height m	Maximum Digging Depth m	Maximum Digging Reach m	Maximum Dumping Height m	Output m ³ /hr (bucket 1..5 m ³ ; easy digging)
Range	0.3 - 9	6 - 12	4 - 14	5 - 17	3 - 8	100 - 150