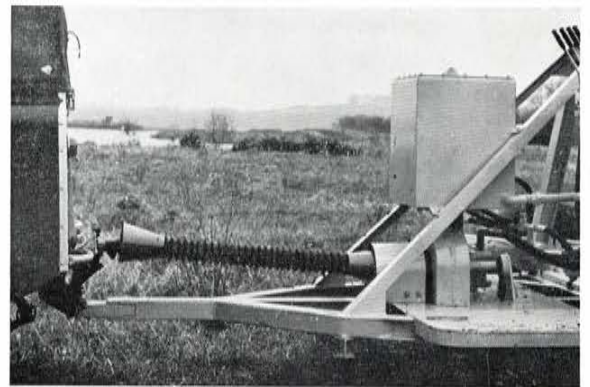


ATOS★

Approved by the Rover
Co. Ltd., for use
with the . . .

**LAND-
-ROVER**

★ ALLEN TRACTOR-OPERATED SHOVEL



Fitted with trench hoe and tilting ram for digging a farm drainage trench.
(Right) The coupling between the Land-Rover and A.T.O.S., showing the Atkinson flexible guard for the propeller shaft.

- ★ Hydraulic action throughout—no brakes, clutches or gears to give trouble.
- ★ Large oil reservoir, 15 galls. capacity, with suction filter to ensure clean oil.
- ★ Control valves grouped in front of operator, who has unobstructed view of bucket.
- ★ 10-in. ejector bucket available for narrow trenches.

This highly mobile attachment, which has been designed to fill the gap between hand labour and the heavy crawler-mounted excavator, is ideal for use on building sites, gas, water and electricity mains, drainage work and similar small excavation schemes.

Operated from the Land-Rover power take-off, through a Hardy-Spicer propeller shaft, its powerful hydraulic action will dig trenches up to 24 in. wide, down to 8 ft. 6 in. deep. By changing the bucket the machine can be converted to a face shovel for excavating a bank of earth, with a maximum loading height of 12 ft. 9 in.

Four vertical levers, which self-centre when released, control all digging actions, which are hydraulic throughout. The Land-Rover can be detached for other work in five minutes.

JOHN ALLEN & SONS (OXFORD) LTD.

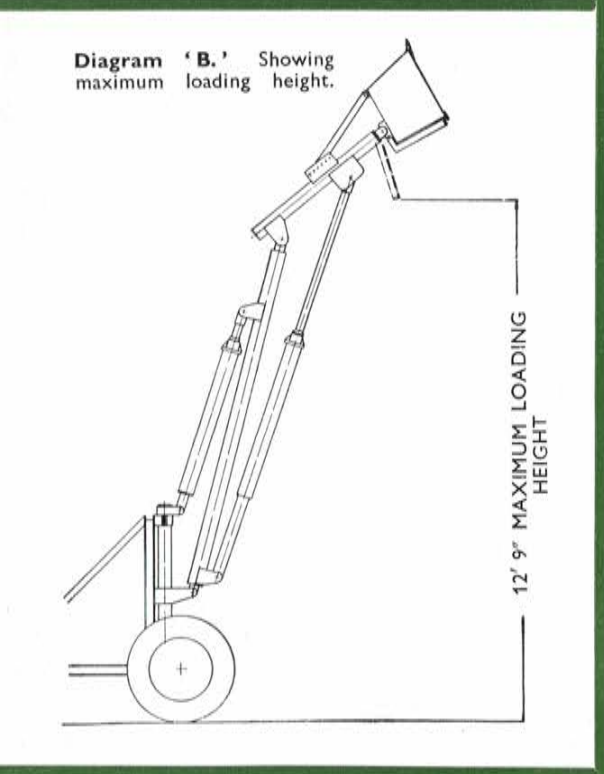
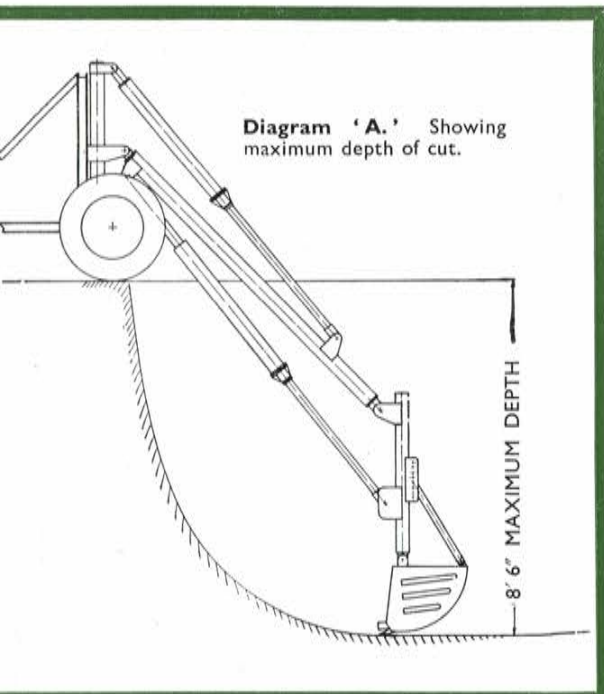
COWLEY, OXFORD

Tel.: OXFORD 77155/7

Grams: ALLENSON, OXFORD

SPECIFICATION

ALLEN TRACTOR-OPERATED SHOVEL



Overall length	18 ft. 0 in.
Overall width	7 ft. 11 in.
Ground clearance	11½ in.
Overall height with boom lowered	5 ft. 9 in.
Weight	2,709 lb.
Size of tyres	7.50 × 16 tractor trailer type
Tyres can be water-ballasted to increase stability	
Wheel bearings	Taper roller
Capacity of oil reservoir	15 gallons
Suction filter fitted in supply tank	
Bore of hydraulic cylinders for boom and bucket control	4 in.
Bore of hydraulic cylinder for swing mechanism	4 in.
Pressure of hydraulic system for boom, bucket, and swing cylinders	1,000 lb. per sq. in.
Steel pins and phosphor-bronze bushes fitted to all boom joints	
Hydraulic hose—high pressure, wire reinforced	¾ in. bore
Diameter of tubular boom	4½ in. outside diameter
Bucket teeth	Chrome alloy steel
The teeth are interchangeable on both types of bucket	
Main frame	3 in. × 3 in. joist
Max. width of trench	2 ft. 0 in.
18-in. shovel bucket capacity	3.3 cu. ft.
Single pump driven by double chain at 880 r.p.m., 17 gallons per minute at 1,000 lb. per sq. in., requiring 15 b.h.p.	
By-pass valves cut off hydraulic power as pressure rises when bucket meets an underground obstruction, thus saving the machine from damage.	
Double-acting ram gives a swing of 107°. A three position pin can be moved to allow machine to work on right- or left-hand side, or midway, 53½° either side of centre line of trench.	
Tilting ram alters angle of trench hoe bucket, enabling machine to load excavated material into lorries to a loading height of 6 ft. 6 in.	

SHIPPING SPECIFICATION:

Machine on baseboard:
 approx. 9 ft. 1 in. × 7 ft. 11 in. × 4 ft. 11 in.
 Gross weight: tons. 1.10.0.0

LAND ROVER EXTRAS REQUIRED:—

1. Rear p.t.o.
2. Engine speed governor (petrol engines only).
3. Engine oil cooler for tropical climates.

The manufacturers reserve the right to alter design or specification without notice