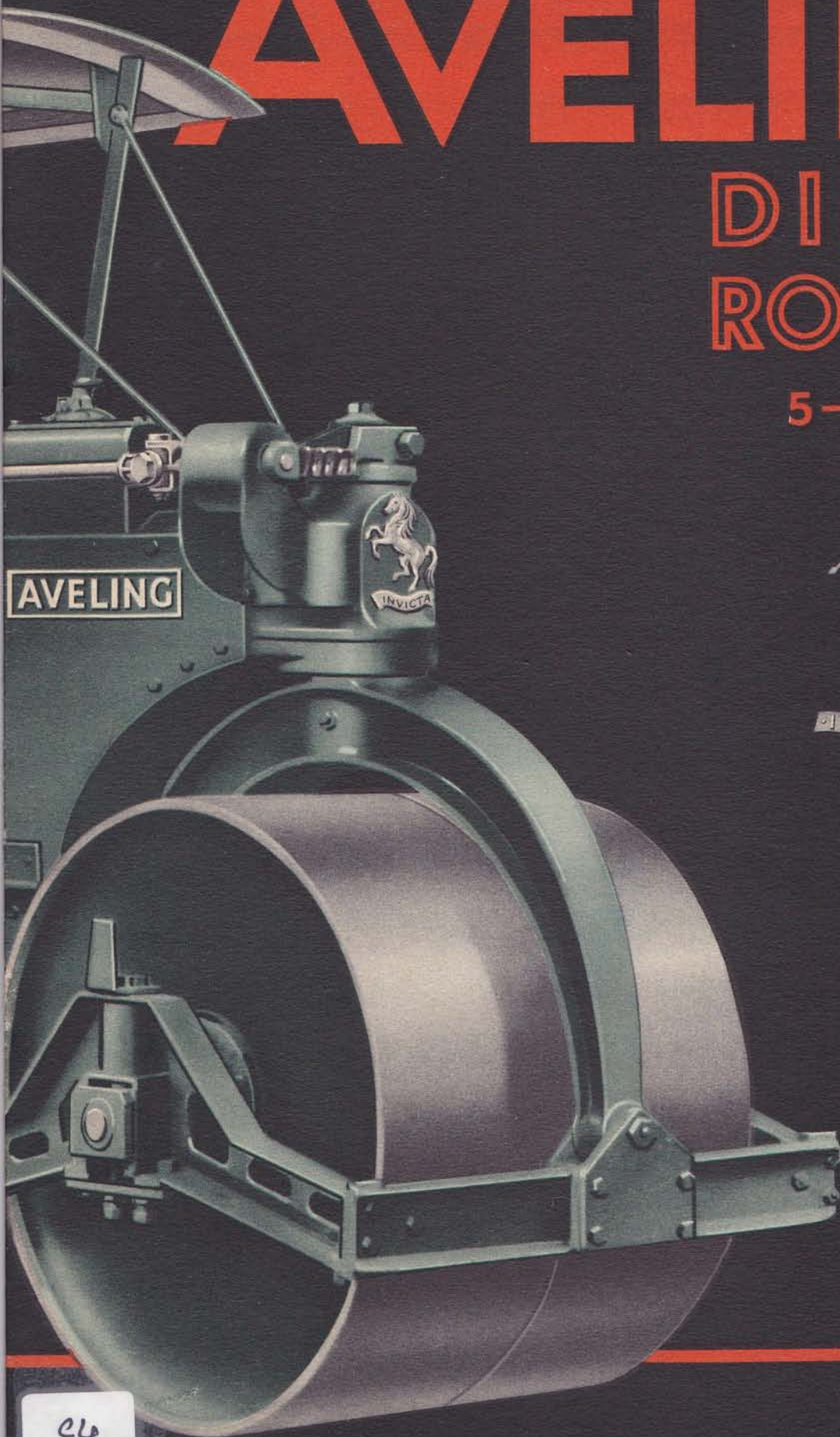


# AVELING

## DIESEL ROLLERS

5-15 Tons



No. 1330

# AVELING DIESEL ROLLERS

FROM 5 TO 15 TONS



## AVELING-BARFORD, LTD

ENGINEERS    **GRANTHAM**    ENGLAND

TELEGRAMS—"ALROLLERS GRANTHAM"

TELEPHONE—GRANTHAM 441 (3 lines)

*Codes—A.B.C. 4th and 5th Editions.    Bentley's complete phrase and 2nd phrase*





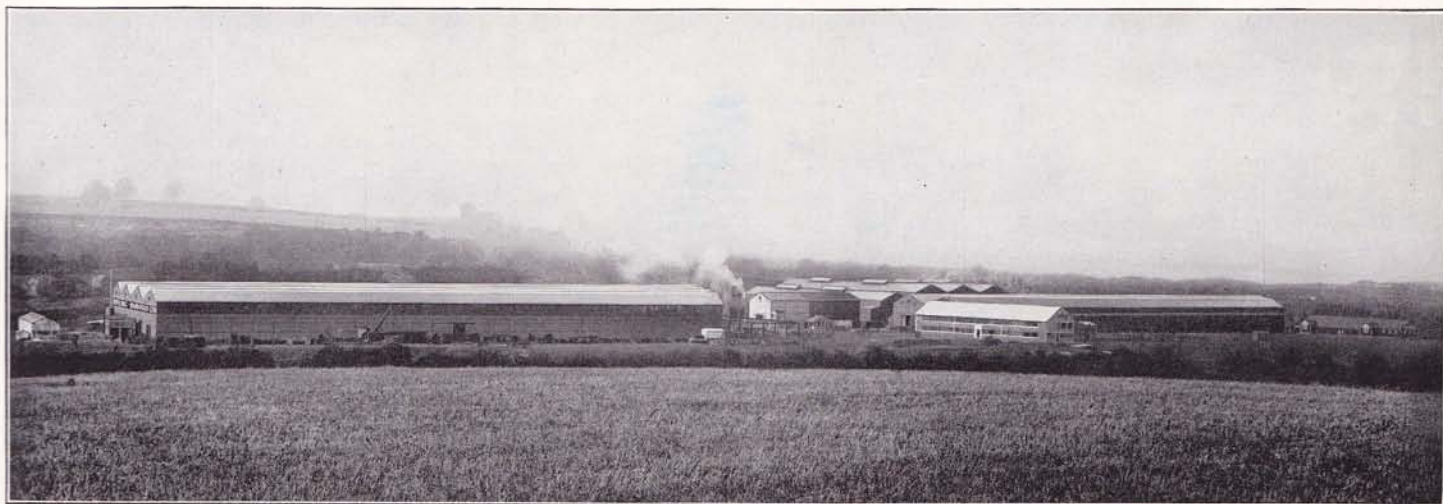
# FOREWORD

OUR history as manufacturers of Road Rollers commences with the invention of the Steam Roller by Thomas Aveling in the year 1867. Since that epoch making event our career, as the leading makers of Rollers, has been punctuated with a series of outstanding contributions to the improvement of the Road Roller, and our designs have set the World's standards.

In 1923 we built the first Roller to be driven by a single cylinder horizontal Diesel engine. The Rollers described herein embody in their construction unique features which are the result of over fifteen years' experience in the building and operating of Rollers of this type.

Rollers are our principal manufacture, and our output is greater than that of all other British manufacturers combined ; **80 per cent. of the Rollers in use in this country to-day were made by us.**

Our new Roller Works at Grantham are the largest of their kind in the World, and are equipped with special machinery of the latest type for our particular production purposes.



**View of Aveling-Barford Works, Grantham**





## **ROBUST SIMPLICITY OF THE AVELING DIESEL ROLLERS**

Robust simplicity is embodied in every component built into the "Aveling" Diesel Roller, and the result is a machine of outstanding strength and durability that will give years of uninterrupted service under the most severe conditions with the minimum of operating costs and skilled attention. "Aveling" Diesel Rollers are eminently suitable for service in outlying districts where skilled operators are not always available.

The power unit is **specially designed for Road Roller propulsion**, and is the outcome of our unique experience and knowledge of Road Roller requirements. It is a heavy duty, single cylinder, medium speed, 4-stroke cycle horizontal Diesel engine of simple design with all essential working parts enclosed but easily accessible for inspection.

At normal R.P.M. the engine develops **ample power for the Roller to perform the heaviest duties encountered in road construction, including road making on any gradient where it is practicable to build roads**. The limit to climbing capacity is usually wheel skid, and excessive engine power is undesirable as it merely raises running costs unnecessarily.

Ease of starting, smooth running at all speeds, low fuel and lubricating oil consumption, are features of the "Aveling" Diesel engine.

A sturdy, precision built, multi-speed, oil bath type gearbox is fitted, which, in conjunction with the variable speed engine, forms a flexible driving combination capable of providing all necessary speeds for rolling and travelling.

All wearing parts of the Roller, particularly the gears, are designed on generous lines, enabling them to stand up to the heavy loads imposed on them for many years without risk of fracture or undue wear.

Materials used in the construction of the "Aveling" Diesel Roller are specially selected for the particular duty they have to perform, and those parts of the machine subject to severe stresses are constructed of high quality steel.







Large diameter rolls of massive construction are fitted, and as these are of hard wearing steel plate, the maximum surface adhesion and long life are assured. A generous overlap of front over rear rolls is arranged.

A further outstanding feature of the "Aveling" Diesel Roller is the smooth, powerful action of the two spring-operated clutches. These clutches are controlled by a single lever, and reverse on all speeds is effected without disengagement of gears.

Every "Aveling" Diesel Roller is put through exhaustive road tests under working conditions, including trials on our own test hill which has a gradient of one in four-and-a-half.

From beginning to end, the manufacture of "Aveling" Rollers is in the hands of skilled workers with long experience in Road Roller engineering, and every part is inspected before assembly in the Roller.

"Aveling" Rollers are built to last and to give regular and economical service with high-class performance without recourse to skilled labour, and with a minimum of maintenance costs.

### **AVELING ROLLERS ARE BRITISH THROUGHOUT.**

#### **OUTSTANDING FEATURES OF CONSTRUCTION THAT ENSURE YEARS OF DEPENDABLE SERVICE**

**Simplicity of design ; robustness of construction.**

**Simple and reliable, 4-stroke cycle single cylinder Diesel engine of ample power.**

**Sturdy, precision built totally enclosed oil-bath gearbox, with heat treated machine cut gears of special steel.**

**Large diameter quick reverse clutches operated by single hand lever.**

**Massive frame of steel girder construction.**

**Taper roller bearing in steering head.**

**Underslung forecarriage.**

**Mild steel rolls of large diameter.**

**Positive irreversible steerage.**

**Differential totally enclosed and running in oil.**

**Convenient grouping of all controls.**

**British material and British workmanship throughout.**



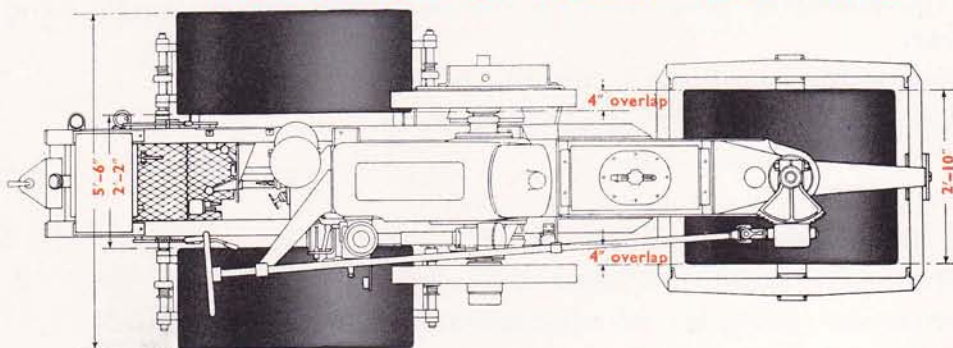




## General Dimensions, Weights, etc.

TYPE : CORD WORD :	DX5 UATUG	DX6 UARWI	DX7 UAPYK	DX8 UAHGS	DY10 UAGHT	DY12 UAFIU	DR14 UAMBN	DR15 UALCO
Approx. Weight ... kg.	5½ Tons 5842	6 Tons 6096	7 Tons 7112	8 Tons 8128	10 Tons 10160	12 Tons 12193	14 Tons 14225	15 Tons 15241
Diameter of Rear Rolls ... m	3' 11" 1,193	3' 11" 1,193	3' 11" 1,193	3' 11" 1,193	4' 6½" 1,384	4' 6½" 1,384	5' 0" 1,524	5' 0" 1,524
Width of Rear Rolls... mm.	20" 508	20" 508	20" 508	20" 508	20" 508	20" 508	22" 559	22" 559
Diameter of Front Rolls ... m	3' 6" 1,066	3' 6" 1,066	3' 6" 1,066	3' 6" 1,066	3' 10" 1,168	3' 10" 1,168	4' 1½" 1,257	4' 1½" 1,257
Width of Front Rolls ... mm.	2' 10" 864	2' 10" 864	2' 10" 864	2' 10" 864	3' 2" 965	3' 2" 965	4' 2" 1,269	4' 2" 1,269
Total Rolling Width ... m	5' 6" 1,676	5' 6" 1,676	5' 6" 1,676	5' 6" 1,676	5' 10" 1,778	5' 10" 1,778	7' 1" 2,158	7' 1" 2,158
Overlap of Rolls, each side... mm.	4" 102	4" 102	4" 102	4" 102	4" 102	4" 102	4½" 114	4½" 114
Wheel Base ... m	8' 2½" 2,502	8' 2½" 2,502	8' 2½" 2,502	8' 2½" 2,502	9' 6" 2,895	9' 6" 2,895	10' 6½" 3,213	10' 6½" 3,213
Turning Circle ... m	32' 0" 9,754	32' 0" 9,754	32' 0" 9,754	32' 0" 9,754	35' 0" 10,668	35' 0" 10,668	38' 0" 11,582	38' 0" 11,582
Overall Length ... m	15' 3" 4,648	15' 3" 4,648	15' 3" 4,648	15' 3" 4,648	17' 6½" 5,347	17' 9½" 5,424	20' 0" 6,096	20' 0" 6,096
Fuel Tank Capacity (Galls.)... (Litres) ...	15 68	15 68	15 68	15 68	24 109	20 91	28 127	28 127
Engine B.H.P. ...	17/19	17/19	17/19	17/19	23/26	26/28	29/32	29/32
R.P.M. (Normal) ...	500	500	500	500	470	470	375	375
Speeds, M.P.H. (Approx.) ... (at Normal R.P.M.)	3.75 2.87 1.19	3.75 2.87 1.19	3.75 2.87 1.19	3.75 2.87 1.19	3.75 2.12 1.50 0.87	3.75 2.12 1.50 0.87	3.25 2.00 1.37 0.75	3.25 2.00 1.37 0.75
Speeds, Kilometres per Hour (Approx.) (at Normal R.P.M.)	6.03 4.62 1.91	6.03 4.62 1.91	6.03 4.62 1.91	6.03 4.62 1.91	6.03 3.42 2.41 1.41	6.03 4.22 2.41 1.41	5.23 3.22 2.21 1.20	5.23 3.22 2.21 1.20

### DISPOSITION OF ROLLS, "DX" TYPE



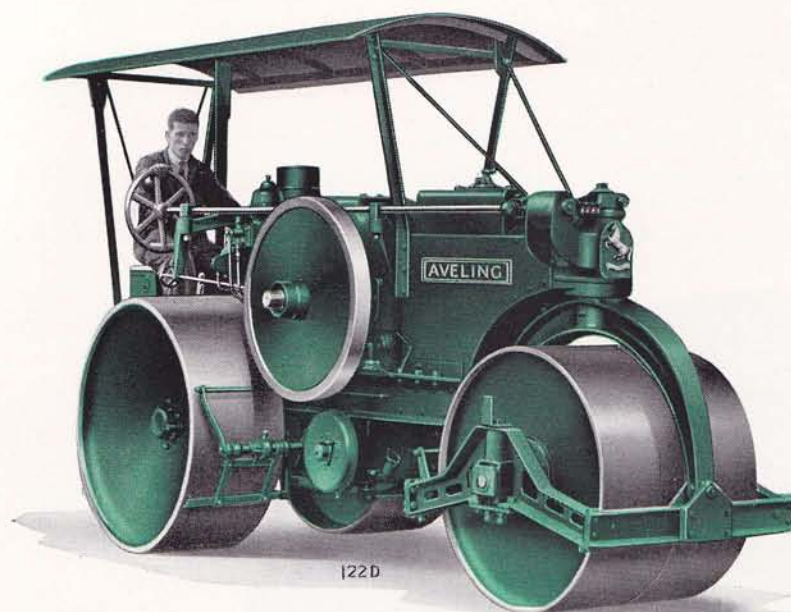
Note the small gap between back rolls and the ample overlap of front rolls.



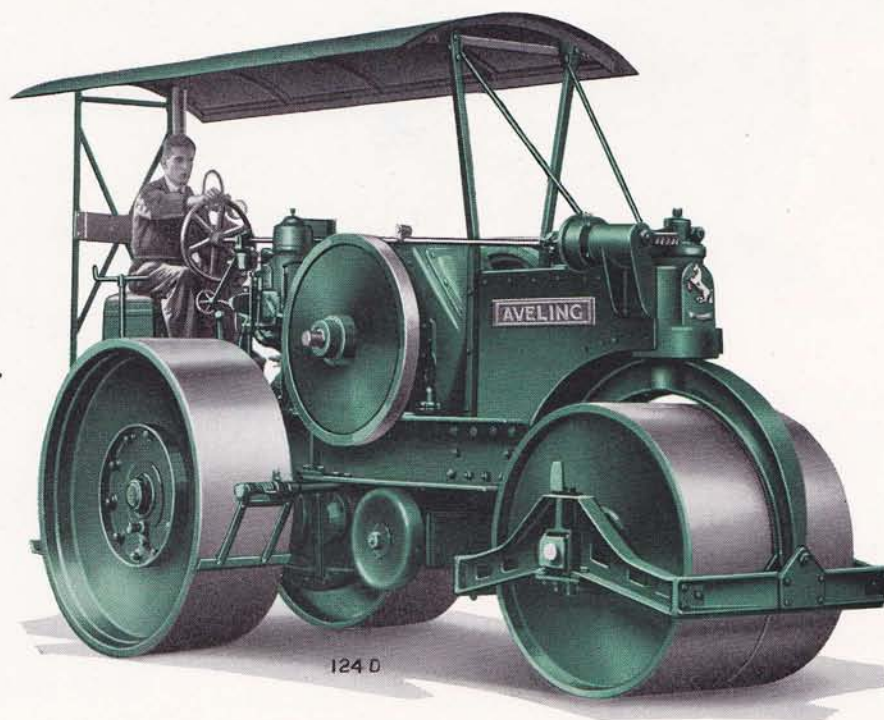
**AVELING DIESEL**



**ROAD ROLLERS**



Type "DX"  
AVELING Diesel Roller



Type "DY"  
AVELING Diesel Roller

**AVELING-BARFORD, LTD.**



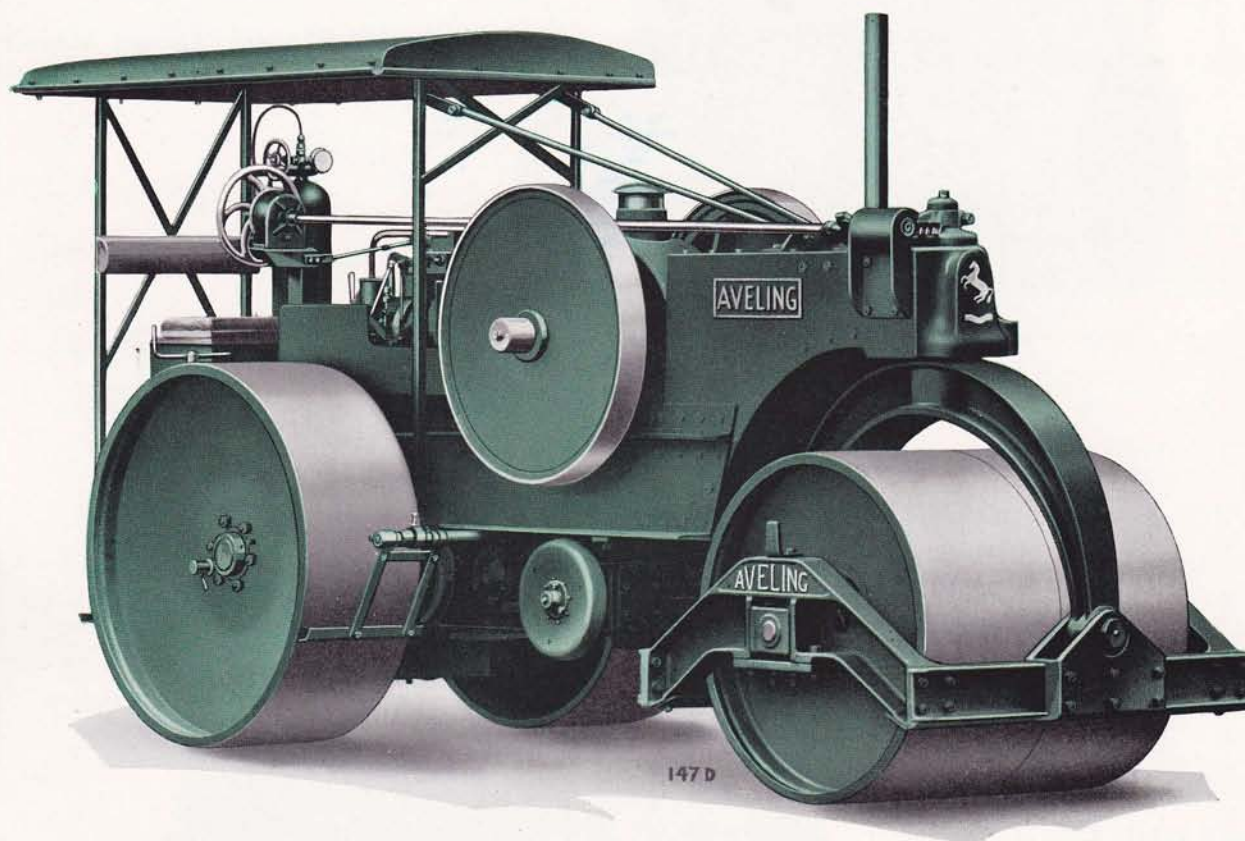
**GRANTHAM, ENGLAND**



**AVELING DIESEL**



**ROAD ROLLERS**



Type "DR" AVELING Diesel Roller

**AVELING-BARFORD, LTD.**



**GRANTHAM, ENGLAND**





## **GENERAL SPECIFICATION**

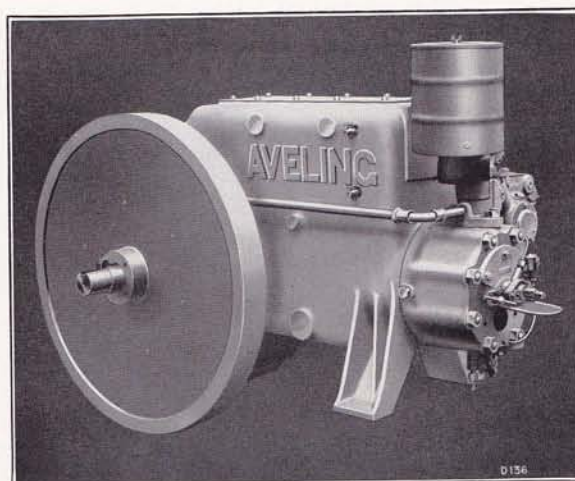
### **ENGINE**

The power unit fitted to "Aveling" Rollers is a four-stroke, horizontal, single cylinder Diesel Oil Engine, **designed specially for Road Roller propulsion**. It is of extremely simple design, very robust in construction, and develops the correct power in ratio to the weight and duty of Roller.

Introduction of fuel to the cylinder is by a patented "Solid Injection" system.

On Rollers up to 9 tons weight, starting of the engine is accomplished by hand cranking, but on the larger sizes air starting gear is provided. A decompressing device is fitted to facilitate starting.

The engine speed is varied by a hand control, working through an efficient governor of the enclosed type, and the engine is governed at all speeds from idling to maximum R.P.M.



**"AVELING" DIESEL ENGINE.**

Lubricating oil is supplied to all important parts by a pressure pump.

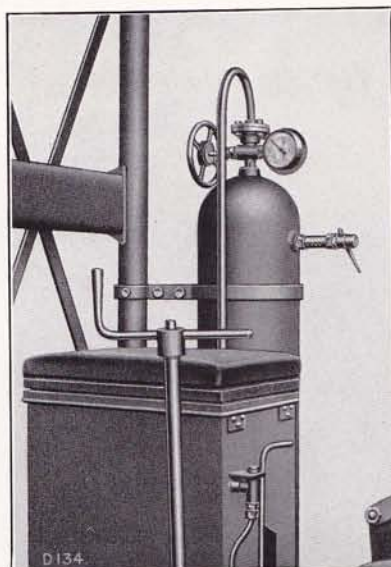
An effective system of water cooling is provided.

Smooth running at all speeds is attained by careful balance of reciprocating parts and the fitting of two flywheels—one on each side of the crankshaft.

The mechanism of the engine is efficiently protected against dirt and dust, but all parts are easily accessible for inspection.

An efficient air filter of the felt element pattern is fitted, which effectively excludes dust from the cylinder and also acts as an intake silencer.

The engine will run economically and cleanly on either refined gas, solar or other fuels of 40 sec. viscosity, and not exceeding .90 Specific Gravity, the only alteration necessary being the timing of the fuel injection.



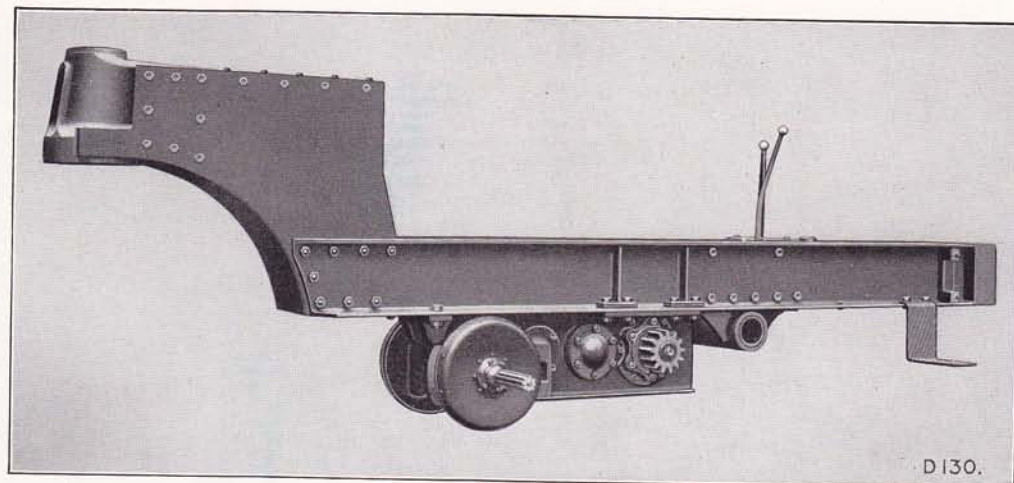
**Air Starting Gear as fitted to "DY" and "DR" Series Rollers.**





## **FRAME**

The design and materials employed in the construction of the frame ensure great strength and rigidity. The main part of the frame consists of two deep channel-section steel girders cross braced at the rear and carrying a steel plate box-section member with extended side plates at the fore. The latter carries the cast



**VIEW OF FRAME**, complete with front member and saddle, showing method of fixing gear box and axle bearing.

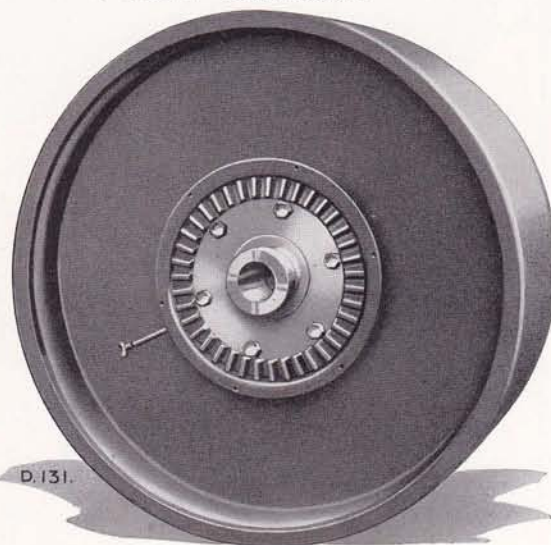
steel saddle or steering head, which is machined to accommodate a large diameter roller bearing at its lower end, and a renewable bush at the top.

The forward member of the frame is of welded construction.

## **ROLLS**

Hard wearing mild steel wrapper plates, ensuring the maximum road adhesion and long life, are used in the construction of all rolls. The plates are welded to pressed steel discs; these latter are dished to give additional strength and to facilitate welding.

The roll discs are bolted to cast iron hubs.



**Rear Roll showing differential plate.**







## **TRANSMISSION**

### **GEAR BOX Three, and Four Speeds**

A massive, multi-speed gear-box of our own design and manufacture is fitted to all "Aveling" Diesel Rollers. Types "DY" and "DR" Rollers are equipped with four-speed gear boxes, and Type "DX" Roller is equipped with a three-speed gear box.

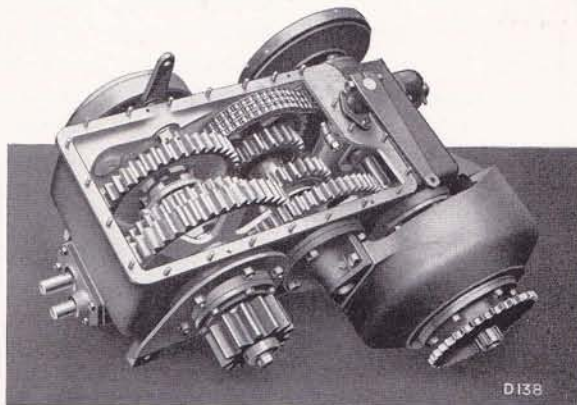
The drive from the engine to the clutch shaft is transmitted by a roller chain which is provided with a jockey sprocket for adjustment. The chain is enclosed.

Through the medium of two independent clutches, equal speeds are obtained in both forward and backward directions of travel at all gear settings.

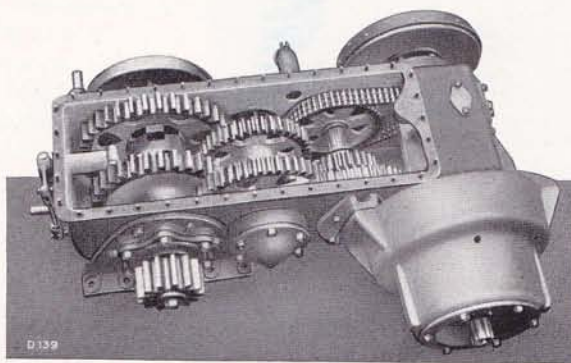
When one clutch is engaged the drive is transmitted to the first intershaft by a triplex roller chain, whilst operation of the other clutch brings a gear drive into action.

By this arrangement, reversal of the Roller's direction of travel is secured with the simplest form of gearing.

All internal gears have machine cut teeth, and are machined from heat treated steel blanks.



Three-speed Gear Box, fitted to "DX" Series Rollers.



Four-speed Gear Box, fitted to "DY" and "DR" Series Rollers.

The shafts are mounted in ball or roller bearings, and are splined to take the gear wheels.

The gear box is entirely enclosed and forms an oil bath for the gears.

A large and easily accessible oil filler elbow with hinged lid and strainer is fitted.

Access to the gears is made easy by the provision of a cover plate, the removal of which exposes the whole internal mechanism.







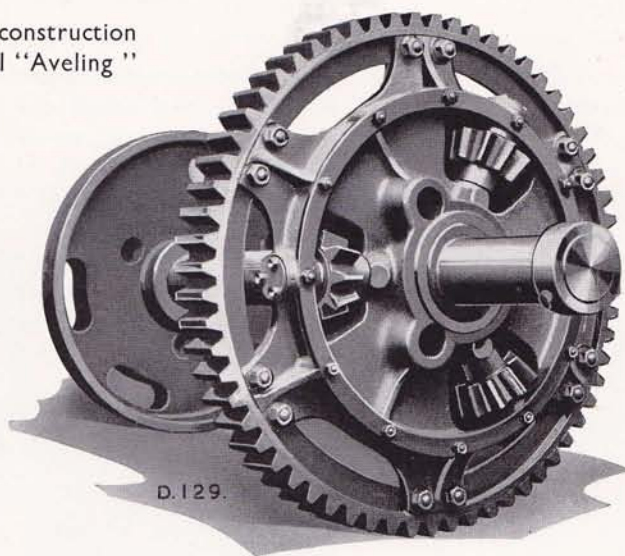
## **TRANSMISSION—contd.**

### **DIFFERENTIAL GEAR**

Differential Gear of sturdy construction is standard equipment on all "Aveling" Diesel Rollers. The provision of this gear enables the Roller to negotiate sharp corners without imposing severe stresses on the axle; facilitates steering, prevents damage to the road surface when manoeuvring, and reduces wear on the rolls by eliminating wheel spin when cornering.

The gear is of the three-pinion type and is combined with the final drive spur wheel. Pinions and spur wheel are cast in special steel.

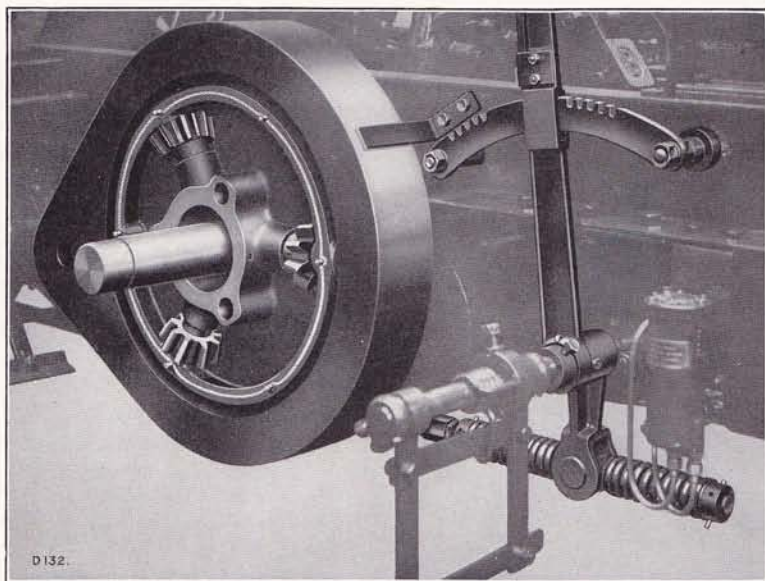
The whole of the Differential Gear is entirely enclosed and runs in oil.



### **CLUTCHES**

Two independent clutches are provided placed on the outside of the gear box where they are entirely accessible for inspection and renewal of linings and where the heat generated in their operation is freely dissipated. They are of the simple inverted cone type with fabric and metal linings, and are remarkably quick and smooth in action. Both clutches are operated by a single control lever—a forward or backward movement of which results in a corresponding direction of travel of the Roller. The clutches are both disengaged when the lever is in a vertical position.

A simple device enables a spring-load to be maintained on the clutches when in engagement, and also permits the control lever to be locked



View showing Spring Loaded Clutch Control Lever, and Differential Gear with Roll removed.







**CLUTCHES (Contd.)** in a notched quadrant without exerting undue pressure on the clutch. By this means a position for locking the lever and maintaining the correct pressure on the clutch without risk of slipping can be secured irrespective of wear that may have occurred on the clutch lining; **adjustment to the clutch itself is unnecessary.**

## **FINAL DRIVE**

The final drive from the gearbox to the main axle is by a steel pinion engaging with a steel spur wheel bolted to the driving centre of the differential gear.

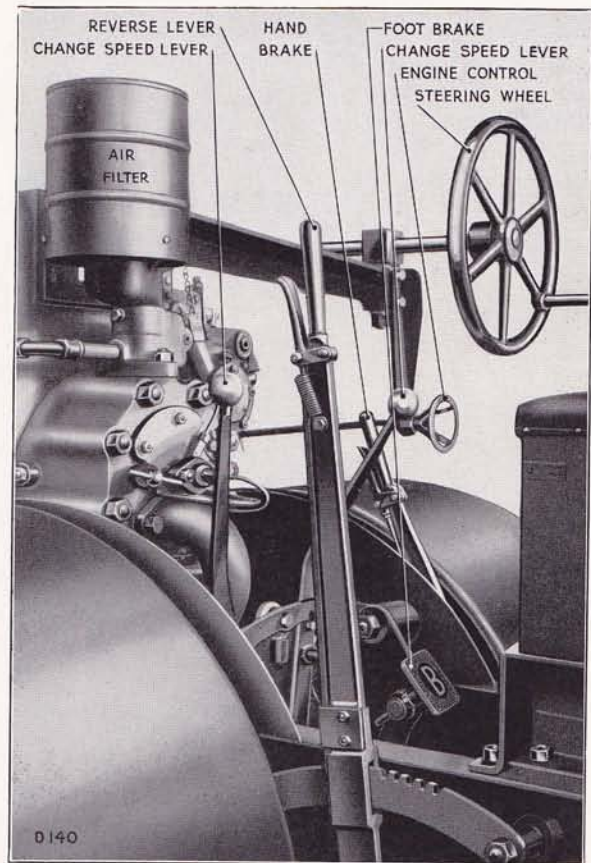
## **CONTROLS**

The controls are conveniently grouped and all are within easy reach of the driver.

## **STEERING**

Steering is by means of a handwheel mounted on a horizontal spindle operating through a universal coupling to a worm wheel and segment; the latter being splined to the vertical pivot pin.

On types "DY" and "DR" Rollers, enclosed reduction gear is interposed between the end of the spindle and the worm wheel.



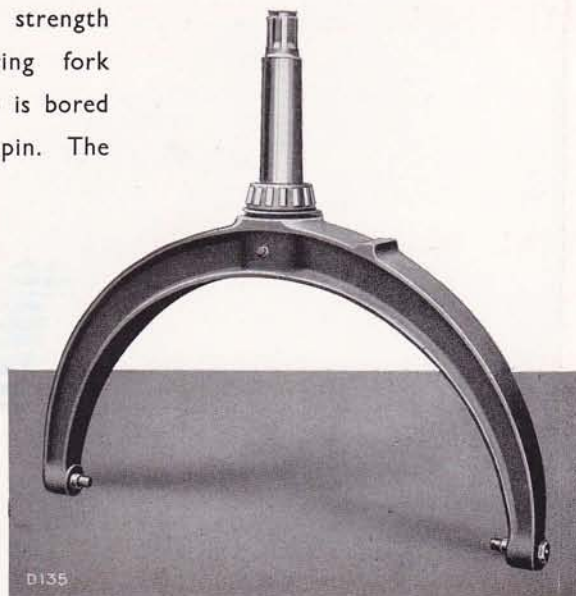
Note the convenient grouping of controls both for Roller and Engine.





## STEERING FORK

Simplicity of design and great strength are combined in the steering fork which is of cast steel. The top is bored to receive the vertical pivot pin. The latter is machined to take a large diameter self-adjusting taper roller bearing, which is responsible, to a large extent, for the exceptionally easy steering of "Aveling" Diesel Rollers.



**FORECARRIAGE** An underslung forecarriage of improved design is fitted.

The steering fork, with taper roller bearing on the upright shaft, is pivoted about the centres of the front and rear members of the undercarriage. This arrangement not only ensures that the front roll pressure is constant over the full width under all normal working conditions, but allows for full steering lock when travelling over uneven ground without undue exertion on the part of the driver.

## BRAKES

Two powerful brakes are fitted to all Aveling Diesel Rollers. The main brake is foot operated and acts on the final drive shaft, whilst the auxiliary brake is hand controlled and operates on a drum keyed to the main axle. In the case of the "DX" type Rollers, the foot brake is of the internal expanding type, and the hand brake is of the contracting type operated by a lever. A notched quadrant is provided to lock the lever in position.

On the larger types of rollers, both brakes are of the contracting band type, and the hand brake is operated by a screw-down handle.

Provision is made for adjustment to compensate for wear of the brake linings. The brake linings are renewable.







## **SCRAPERS**

Adjustable scrapers extending over the full width are fitted to the front and back of the front roll. Adjustable, spring loaded scrapers are fitted to front and back of rear rolls. Scraper plates are renewable.

## **AXLES**

The driving axle is of special quality, oil toughened steel; it runs in renewable bearing bushes of large bearing surface, which are housed in a massive axle box carried between the two girders forming the main frame.

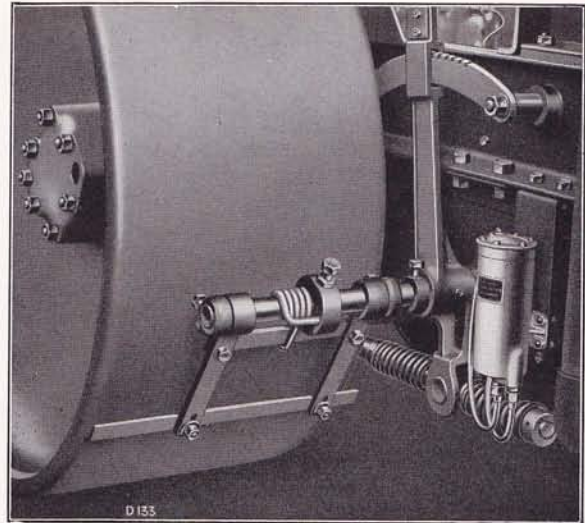


Illustration showing Rear Scraper, and Fuel Filter.

Similar material is used for the front axle, which is mounted in the side members of the forecarriage.

## **FUEL TANK**

A strongly constructed fuel tank holding sufficient fuel for a week's normal working, is fitted.

## **FUEL FILTER**

An efficient fuel filter, of the felt element type, is fitted in the fuel supply pipe line.

## **FINISH**

The Roller is well rubbed down, primed, given two coats of paint and then varnished.

## **OUTFIT**

A complete set of tools is provided with each Roller, including all necessary spanners, oil can, grease gun, spare nipples, and small wearing parts. These are housed in a tool box which forms the driver's seat. A waterproof cover is included in the outfit, except when an awning is ordered. In this case side and end curtains are supplied.

## **TEST**

The engine undergoes a thorough bench test before assembly in the Roller. The completed Roller is tested on the road for at least two days.





## EXTRA FITTINGS

### AWNING

Of sheet metal, extending practically the whole length of the Roller, affording complete protection for the driver. Side and end curtains are provided.

### WATER SPRAYERS

Water spraying tank with the necessary pipe connections and controls for all rolls.

### PUMP AND HOSE

For filling the water tank a semi-rotary hand pump with wire armoured hose, carried on a bracket, can be supplied.

### WINDING GEAR

The winding drum is combined with the rear brake boss, and is supplied complete with rope and guide rollers.

### POWER PULLEY

The engine power can be utilized for driving other machinery by means of a power-take-off pulley ; this is bolted to the engine fly-wheel.

### SCARIFIER

For use on "Aveling" Rollers we recommend the "Price" Patent Resilient Scarifier.

By arrangement with the Patentees we manufacture these Scarifiers for fitting to our Rollers.

The outstanding advantages of the "Price" Scarifier are :—

1. **Vibration reduced to a minimum.**
2. **Increased cutting speed produced by spring-loaded tines.**
3. **Increased life of tines.**
4. **No overloading of Roller.**
5. **Patent Cotter Box ensuring easy removal of bent tines.**
6. **Adjustable Draw-bar with fabric-lined trunnion.**
7. **Totally enclosed rack preventing entry of dirt.**
8. **Improved patent frame.**
9. **Patent shock absorbing device.**

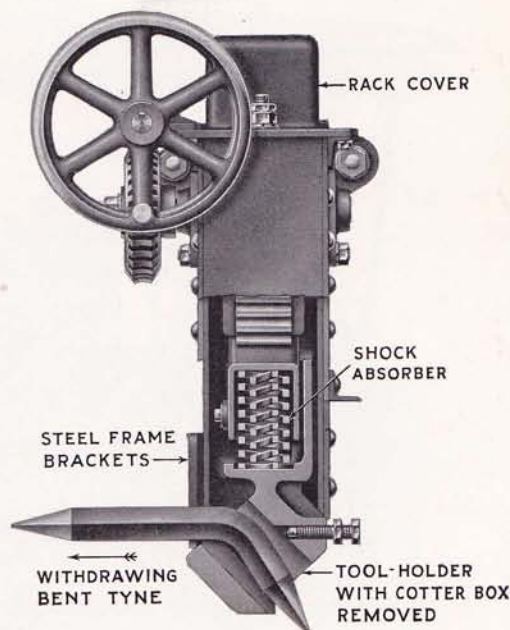






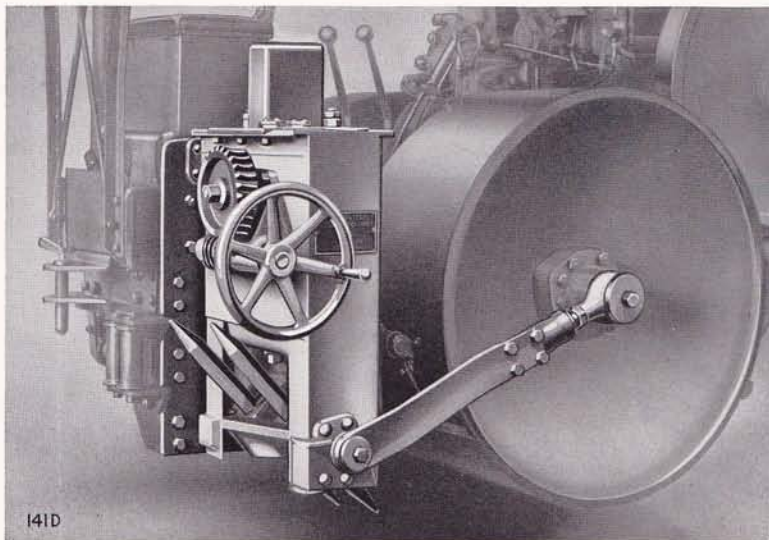
## **SCARIFIER (contd.)**

The frame of the "Price" Scarifier is built up of mild steel channels, with two cast steel brackets forming the top cover and carrying the worm operating gear and handwheel. The tool holder, rack and pinion gear are all of cast steel ; the rack being entirely enclosed. Cast solid with the rack is a box in which is housed the shock absorbing device.



**Cross Section of One-Tine Scarifier, showing method of removing bent Tine.**

**Aveling Diesel Roller fitted with Two-Tine 'Price' Scarifier.**



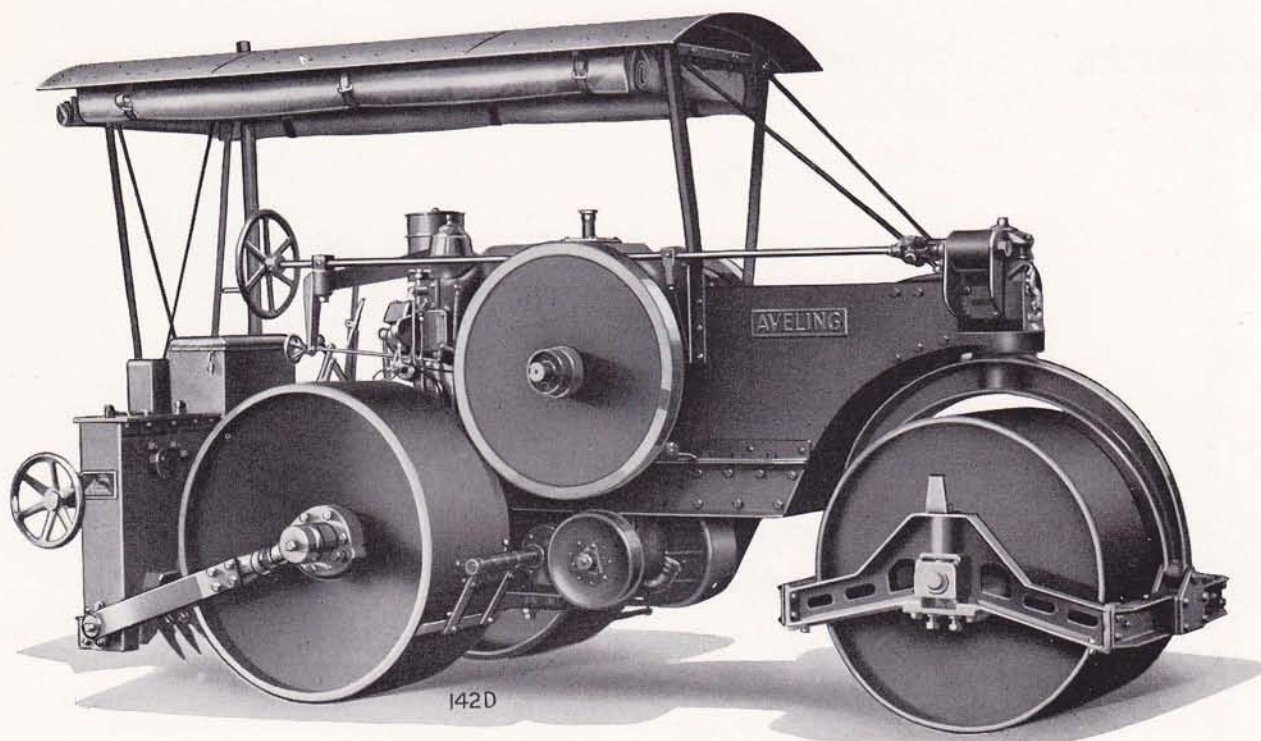
The patented Cotter Box eliminates the difficulty usually experienced in removing bent tines. "Price" Patent Scarifiers are made in one, two and three tine sizes.



**AVING DIESEL**



**ROAD ROLLERS**



**Type "DX" AVELING Diesel Roller with Awning, Curtains,  
and Two-Tine Scarifier**



**A recent order for eighteen "Aveling" Diesel Rollers, consisting of twelve "DX9"  
and six "DY10" machines, photographed before despatch to the Near East.**



**AVING - BARFORD, LTD.**

**GRANTHAM, ENGLAND**





## Some Users of Aveling Diesel Rollers

### AT HOME—PUBLIC AUTHORITIES

Aberdeen County Council (3).  
Argyll County Council (4).  
Berwick County Council (2).  
Bute County Council.  
Cardigan County Council.  
Carmarthen County Council.  
Cork County Council.  
Cumberland County Council (3).  
Devon County Council (3).  
Donegal County Council.  
Dumbarton County Council.  
Dumfries County Council (2).  
East Riding County Council.  
Essex County Council.  
Glamorgan County Council.  
Gloucester County Council (7).  
Hereford County Council.  
Hertfordshire County Council.  
Hunts. County Council.  
Inverness County Council (5).  
Kent County Council (9).  
Kilkenny County Council.  
Kinross County Council.  
Kirkcudbright County Council.  
Midlothian County Council (2).  
Nairn County Council.  
Offaly County Council.  
Orkney County Council (3).  
Roxburgh County Council (2).  
Salop County Council.  
Stirling County Council (2).  
Sutherland County Council (3).  
Tipperary County Council.  
Westmorland County Council.  
West Lothian County Council (2).  
West Riding County Council (2).  
Zetland County Highways (2).  
Aberdeen Burgh.  
Acton Borough.  
Aldridge Urban District Council.  
Andover Borough.  
Ayr Corporation.  
Barnes Borough.  
Battersea Borough Council (2).  
Beckenham Borough (2).  
Bedford Corporation.  
Bedworth Urban District Council.  
Birkenhead County Borough.  
Bishop Auckland Urban District Council.  
Blyth Borough.  
Brentford & Chiswick Borough.  
Bridlington Corporation.  
Brighton County Borough (2).  
Broadstairs and St. Peter's Urban District Council (2).  
Chichester City.  
Chislehurst & Sidcup Urban District Council.  
Colne Corporation.  
Coulsden and Purley Urban District Council.  
Crewe Borough.  
Dagenham Urban District Council.  
Darlaston Urban District Council.  
Dartford Council.  
Dartmouth Borough.

Dover Corporation.  
Ealing Borough.  
East Ham County Borough.  
Eastbourne County Borough.  
Gellygaer Urban District Council.  
Gillingham Borough.  
Gravesend Borough.  
Greenwich Metropolitan Borough.  
Hackney Metropolitan Borough.  
Hereford City (2).  
Hertford City.  
Houghton-le-Spring Urban District Council.  
Ipswich Borough.  
Kidderminster Borough.  
Kirkcaldy Burgh.  
Lambeth Metropolitan Borough.  
Littlehampton Urban District Council.  
Llanelli Borough.  
Lymington Borough.  
Maidstone Borough (2).  
Maldens and Coombe Urban District Council.  
Margate Corporation.  
Middleton Corporation.  
Newport Borough—I.O.W.  
Norwich Corporation.  
Paddington Borough.  
Paisley Corporation.  
Penge Urban District Council.  
Poplar Metropolitan Borough.  
Prestwich Urban District Council.  
Prestwick Burgh.  
Reading Borough.  
Reigate Borough.  
Richmond Borough.  
Rochester City.  
Romford Urban District Council.  
Ruislip-Northwood Urban District Council.  
Ryde Borough, I.O.W. (2).  
Selby Urban District Council.  
Sevenoaks Urban District Council.  
Southend-on-Sea County Borough.  
Spennymoor Urban District Council.  
St. Marylebone Metropolitan Borough.  
Stourbridge Borough.  
Stockton-on-Tees Corporation.  
Stroud Urban District Council.  
Sunderland Borough.  
Surbiton Urban District Council.  
Swanscombe Urban District Council.  
Swindon Corporation.  
Teddington Urban District Council.  
Tiverton Borough.  
Tottenham Urban District Council.  
Twickenham Borough.  
Uxbridge Urban District Council.  
Watford Borough.  
Whitchurch Urban District Council.  
Whitley and Monkseaton Urban District Council.  
Woking Urban District Council.  
Woolwich Metropolitan Borough.  
Worcester City.  
York City (2).







## **Some Users of Aveling Diesel Rollers—contd.**

### **AT HOME—CONTRACTORS, ETC.**

Arnold, G. & Son, Ltd., Doncaster.  
 Associated Asphalt Co., Ltd., Thames House, Westminster, S.W. (2).  
 Ball, A. H. & Co., Ltd., Farnham (2).  
 Banes & Co., Pottton, Beds. (5).  
 Boswell Dudley, Wolverhampton (2).  
 Boswell, M. A., Wolverhampton.  
 Brett, R. & Sons, Ltd., Canterbury (2).  
 Briercliffe, A., Northgate Goods Yard, Chester.  
 James Dalziel, Tackley House, King Edward Street, Oxford.  
 Davies Bros., Barmouth.  
 Economic Construction Co., Ltd., Croydon.  
 Eddison Steam Rolling Co., Ltd., Dorchester (5).  
 Essex Steam Rolling Association, Ltd., Kelvedon, Essex (2).  
 Faulkner, G. S. & Sons, Reigate.  
 Fitzpatrick & Son, Bow, London, E.3 (2).  
 French, W. & C., Ltd., Buckhurst Hill.  
 Gallagher, P., Ltd., Romford.  
 Gilbertson, Peter & Sons, 5/7, Manor Road, Great Crosby, Liverpool.  
 Godden, F. R., Cheam, Surrey.  
 Grainger, W. & Son, Pembury.  
 Grounds & Newton, Bournemouth.  
 Hadsphaltic Construction Co., Ltd., London, E.C.3.  
 Hardy, Stephen, Foulden, Berwick-on-Tweed.  
 Hawkins, Henry, Walton-on-Thames.  
 Jones, T. C., & Co., London, W.12 (3).  
 Lavender, McMillan, Ltd., Surrey.  
 Limmer & Trinidad Lake Asphalt Co., Ltd., Steel House, Tothill Street, Westminster, S.W. (15).  
 London & North Eastern Railway, Stratford.  
 McAdam, John & Sons, Ltd., Mugiemoss Road, Woodside, Aberdeen.

The Midland Rolling & Haulage Co., Ltd., Charles Edward Road, Sth. Yardley, Birmingham.  
 London Brick Co., Ltd., Africa House, Kingsway, W.C.2.  
 The Neuchatel Asphalte Co., Ltd., London, S.W.1 (6).  
 Non-Impact Surfaces, Ltd., London, E.C.3.  
 North, Stanley, London, S.E.25.  
 O'Sullivan (Kenley), Ltd., Kenley.  
 Pragnell & Co., Godstone.  
 Richards, H. & Co., Ltd., Newport, Mon. (9).  
 E. & E. Rogers, Montford Bridge, Shrewsbury.  
 Scales, A., Ltd., Hertford.  
 The South-Eastern Engineering Co., Ltd., Maidstone (12).  
 South of Ireland Asphalt Co., Ltd., 7 & 8, Lower Abbey Street, Dublin, C.8.  
 Strong, H. & Sons, Birmingham.  
 Tarran, Robert G., Hull (4).  
 Tarslag (1923) Ltd., Economac House, Wolverhampton.  
 Tawse, Wm., Ltd., Aberdeen.  
 Towers, Wilson & Co., Woodthorne Road, Tettenhall, Staffs. (2).  
 W. Turner (Ardwick) Ltd., West Gorton, Manchester.  
 G. Percy Trentham, Ltd., Wood Lane, Bromford, Erdington, Birmingham.  
 The Val de Travers Asphalte Paving Co., Ltd., 106, Salisbury House, Finsbury Circus, E.C.3.  
 Watson, W. & J. R., Ltd., 48 & 50, Iona Street, Edinburgh, 6.  
 Wills, C. J. & Sons, Ltd., Chadwell Heath.  
 The Wingham Engineering Co., Ltd., Wingham, Nr. Canterbury.  
 Wimpey, Geo. & Co., Hammersmith (2).  
 Wood, Thos., & Sons, Ltd., Crockenhill (3).

### **WAR OFFICE**

Royal Engineers, Aldershot.

Royal Engineers, Shrewsbury.

Royal Engineers, Corsham.

### **H.M. OFFICE OF WORKS (4)**

### **ESTATE OWNERS**

The Duke of Bedford.

The Earl of Durham.

Estate Management and Supply Association, Ltd., Kildare.

### **ABROAD**

Aden.  
 Algeria.  
 Argentina.  
 Australia.  
 Borneo.  
 Brazil.  
 Canary Islands.  
 Ceylon.  
 China.

Columbia.  
 Cuba.  
 Cyprus.  
 Cyrenaica.  
 Denmark.  
 Dutch East Indies.  
 Egypt.  
 Eritrea.  
 Esthonia.

France.  
 French Indo-China.  
 French Morocco.  
 Germany.  
 Gold Coast.  
 Holland.  
 Hungary.  
 India.  
 Iran.

Iraq.  
 Italy.  
 Jamaica.  
 Japan.  
 Kenya Colony.  
 Lithuania.  
 Malaya.  
 Malta.  
 Mexico.

New Zealand.  
 Nigeria.  
 Palestine.  
 Portugal.  
 Russia.  
 South Africa.  
 Spain.  
 Spanish Morocco.  
 Switzerland.

Syria.  
 Tonga.  
 Trans-jordan.  
 Tripolitania.  
 Tunis.  
 Uruguay.  
 Zanzibar.

Whilst every care has been taken to ensure accuracy of the weights, dimensions, and other particulars of the Rollers illustrated and specified in this Catalogue, they are not binding in detail, and we reserve the right to modify.



**AVELING-BARFORD, LTD.**

**GRANTHAM, ENGLAND**



