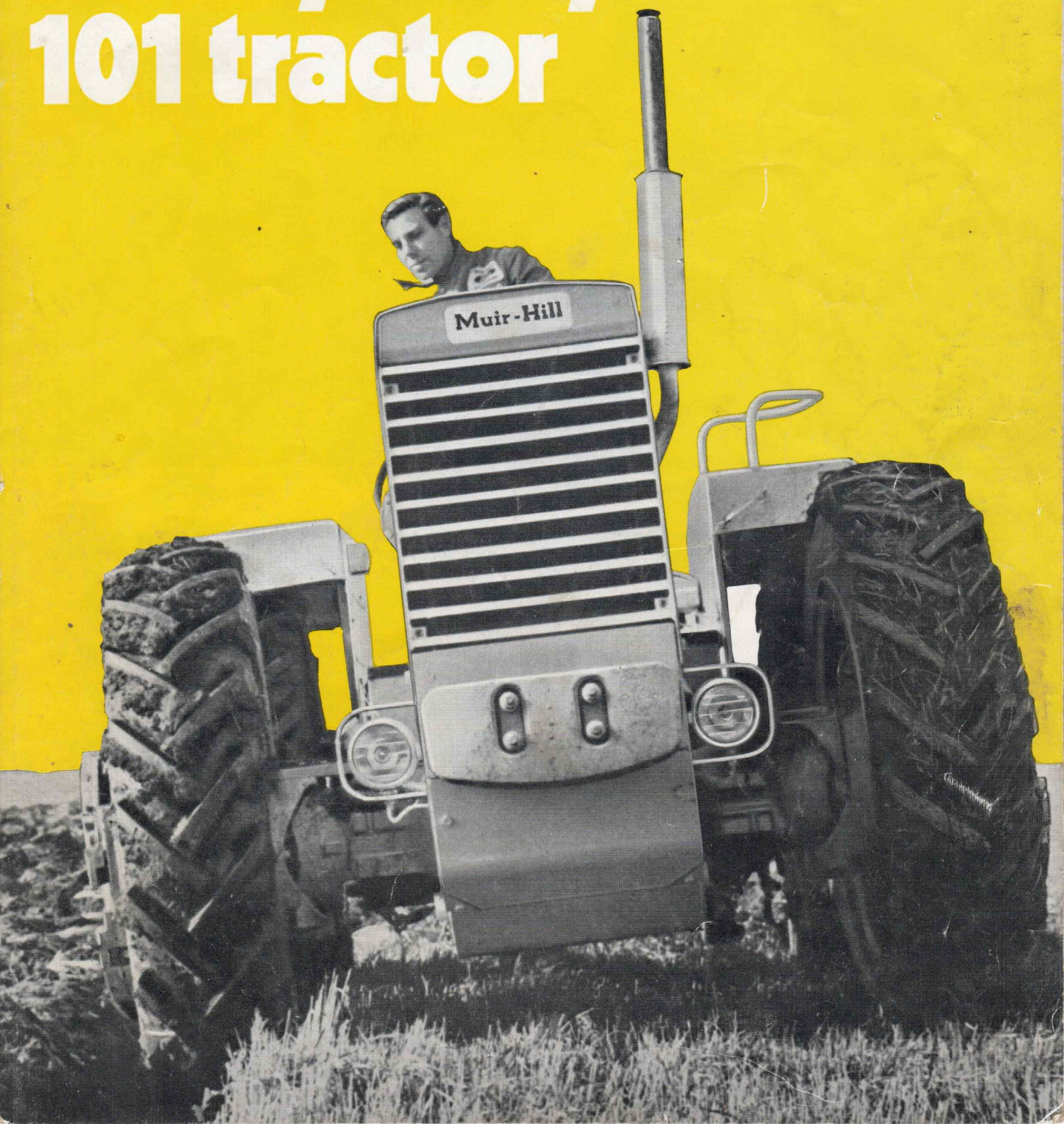
$10,700 Loaded in Ga
complete

Paul Hendricks

Muir-Hill 4 wheel drive heavy duty 101 tractor



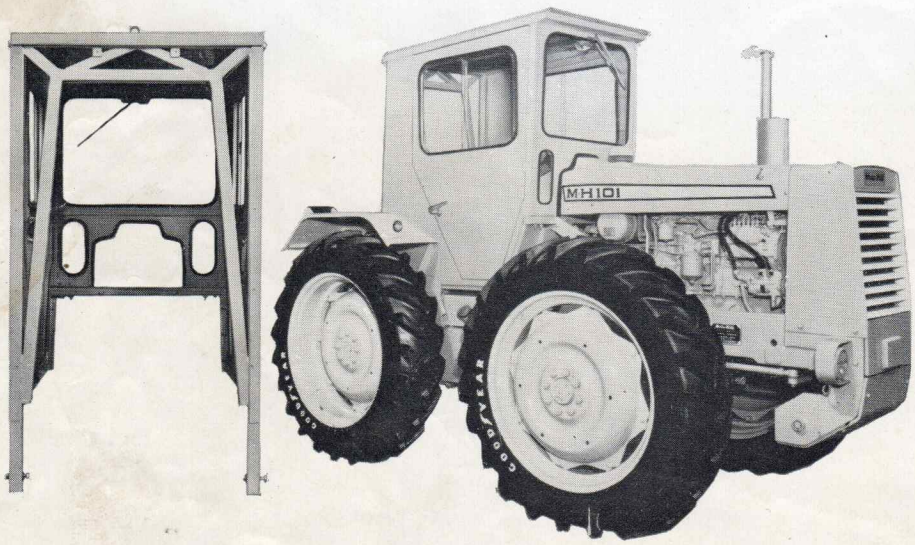
Rolling

Photo by kind permission of Messrs. P. B. Bettinson & Co. Ltd., manufacturers of Molcage wheels.

Rolling

When the 101 is fitted with cage wheels, as illustrated, there is a clear absence of ground compaction. This is due to the even distribution of weight combined with the advantages of four-wheel drive.

The 101 can be fitted with a safety cab of rigid construction. A roll down canvas back is provided to allow implement adjustments.



Special Features

1. High power/weight ratio—27 b.h.p./ton unladen.
2. Full torque capacity steering axle of patented design doubles axle load and torque capacity of conventional 60/70 h.p. two-wheel drive tractors.
3. All front axle pivots greased and sealed.
4. Front axle disconnect.
5. Long life sealed brakes, independent or coupled operation.
6. Equal track front and rear, adjustable by 4″ (102 mm.) steps.
7. Small turning radius for maximum manoeuvrability.
8. Greater power outputs from P.T.O.'s.
9. Heavy duty body work and protective cowling.
10. Large capacity fuel tank for a full day's work.
11. High drawbar pull.
12. Heavy duty 14″ diameter clutch.

profit from power on th

the big all weather power tractor, the Muir-Hill 101, has proved that it can mo

Ploughing

The 101 comfortably operates the largest available heavy duty ploughs and cultivators.

Trenching

Fitted with a Raadahl trencher unit, the 101 is ideal for agricultural and small scheme drainage work with an operating speed of up to 50 feet per minute, in normal conditions, trenching up to 5 feet deep. The unit moves from site to site under its own power, dispensing with low loader transportation.

Logging

Working in a Scandinavian forest hauling logs for the paper industry, this 101 tractor is fitted with a log crane and bogie trailer, loading and hauling 5 to 20 tons of timber on previously inaccessible sites.

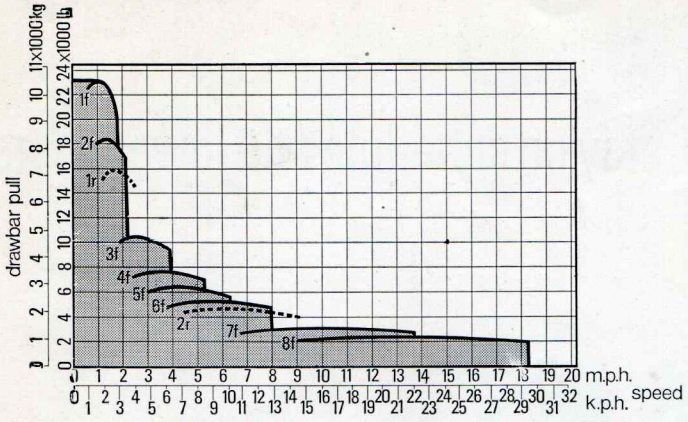
e land–wet or dry

re than double your tractor productivity, stay on schedule and lower costs

Trenching

Logging

Speed/Drawbar pull



Based on tractor fitted with 12·00×38×6 ply tyres (rolling radius 28·6" [0,72 m.]) taking into account transmission efficiency and rolling resistance on a hard surface.

Achievable pull in gears 1 and 2 is normally limited by adhesion.

With alternative wheels and tyres

Tyre size and ply rating	Multiply scaled speeds by	Multiply scaled pull by	Maximum weight of water ballast in 4 tyres lb.	Kg.	Total permissible weight on 4 tyres—exd. water ballast lb.	Kg.
14·00×30×6 ply	0·93	1·09	2,600	1179	15,700	7121
14·00×30×8 ply	0·93	1·09	2,600	1179	19,100	8664
11·00×36×6 ply	0·95	1·08	1,600	726	12,100	5488
12·00×36×6 ply	0·97	1·04	1,960	889	13,500	6123
11·00×38×6 ply	0·98	1·03	1,680	762	12,400	5625
12·00×38×6 ply	1·00	1·00	2,080	943	13,900	6305

Track 64"–80" (1,62–2,03 m.) adjustable×4" (102 mm.) steps.

Weight (minimum to maximum)

Front: 6,611 lb.–12,000 lb. (3005 Kg.–5444 Kg.)
Rear : 3,026 lb.–12,000 lb. (1375 Kg.–5444 Kg.)
Total : 9,637 lb.–24,000 lb. (4380 Kg.–10888 Kg.)

Gross laden vehicle weight must never exceed 24,000 lbs. (10888 Kg.) including water ballast.

Engine

Make Ford diesel
Model 2704E
Type 4 stroke o.h.v.
No. of cylinders 6 in line, vertical
Fuel injection equipment Simms, direct in line, Mechanical Governor
Bore 4·1255" (104,8 mm.)
Stroke 4·524" (114,9 mm.)
Displacement 363 cu. in. (5948 cc.)
Maximum torque 253·5 lb.ft. (35,05 Kg.M.) @ 1,500 r.p.m.
Governed speed 2,500 r.p.m.
Maximum gross horsepower 127 at 2,500 r.p.m.
Flywheel horsepower (nett) 101 at 2,500 r.p.m.
Cooling system High flow, pressurised

Clutch

Heavy duty, single dry plate, 14" (360 mm.) diameter.

Transmission

Constant mesh, 2 range, giving 8 forward speeds to 20·3 m.p.h. (32,4 k.p.h.) and 2 reverse speeds to 9·8 m.p.h. (15,6 k.p.h.).

Transfer Gearbox

Provides drive to front and rear axles with 1·094:1 reduction; fitted with a rotor pump for lubrication of the high strength spur gearing; additional power take-off at rear of casing; four wheel drive disconnect standard.

Axles

Front and rear: Double reduction, 23·75:1 reduction through heavy duty spiral bevel crown wheel and pinion, with high strength planetary gearing. Front drive/steer axle (patents pending) is fitted with large capacity constant velocity joints, and is centre pivoted on a steel pin with sealed bushes. Axle oscillation 28°.

Differential lock: Hydraulically operated, is fitted standard on both axles.

Brakes

Foot operated; independent or coupled operation for four wheel braking. Hydraulically balanced, self energising, oil cooled, long life sintered metal multi-plate discs on both axles; totally sealed against water and dirt, acting through 4·5:1 planetary reduction gearing. Effective braking area 620 sq. in. (4000 sq. cm.).

Parking: Hand operated, mechanical multi-plate disc brake acts on transmission.

Wheels and Tyres

Fully interchangeable wheels are fitted all round and are of pressed steel, with rims to suit tyre sizes and ply ratings. Tyres of varying sizes as shown in the performance table can be fitted as required. Wheel track is adjustable from 64"–80" (1,62–2,03 m.) by 4" (102 mm.) on wheels of 30" (0,76 m.) diameter and over. Water ballast, as shown in the performance tables, and wheel weights can be supplied as required.

Steering

Full power steering with direct driven gear pump and twin rams.
Regulated flow 3·3 g.p.m. (15·0 litres/min.).
Hydraulic cylinders—2 off-2" (50·8 mm.) dia.
Steering box—Orbitrol type—displacement 9·7 cu. in. (160 cu. cms.) per rev.
Number of turns lock to lock—4·6

Hydraulic Power

Draught and position control hydraulics with flow control. Gear type pump located in rear axle centre housing. Capacity 6 g.p.m. at 2100 engine r.p.m. at 2500 p.s.i. Brit. Std. Cat. II type implement linkage. Double acting top link control of implement draught. 12 g.p.m. system optional.

Power Take-offs

Standard: At rear of transfer gearbox casing, direct continuous drive at engine speed; 85 h.p. (continuous) on shaft; S.A.E. 'B' type 2 or 4 bolt flange, shaft with S.A.E. spline 0·875" (22·2 mm.) diameter. Adaptors for other shaft sizes can be supplied.

Standard: At rear of axle casing, fully independent, with hand operated clutch; 70 h.p. (continuous) on shaft @ 540 r.p.m. (1700 engine r.p.m.) and 85 h.p. (continuous) on shaft @ 640—770 r.p.m. —shaft 1·375" (34·9 mm.) diameter, 6 spline. Height above ground level 2' 1" (0·63 m.).

Optional: In lieu of the above, fully independent, with hand operated clutch; 70 h.p. (continuous) 90 h.p. max. (short duration) on shaft @ 1000 r.p.m. (2320 engine r.p.m.)—shaft 1·375" (34·9 mm.) diameter, 21 spline. Height above ground as above.

Drawbar

Rear drawbar, with lateral adjustment of 9 in. (229 mm.) each side of centre also fitted.

Electrics and Instrumentation

Alternator: heavy duty starter; 12 volt 128 amp/hr. battery; full road lighting; starter switch; engine stop control; electric outlet socket and plug; horn; fuel gauge; proofmeter; oil pressure warning light: charging circuit indicator light.

Capacities

Engine	Cooling System	6 galls.	(27,3 litres)
	Sump	2·75 galls.	(14,5 litres)
	Fuel tank	28 galls.	(127,3 litres)
Transmission	Sump	4 galls.	(18,2 litres)
Axles, front—differential		3 galls.	(13,6 litres)
	Hubs (each)	5 pints	(2,8 litres)
rear	(including transfer box)	8·5 galls.	(38,6 litres)

Optional Equipment

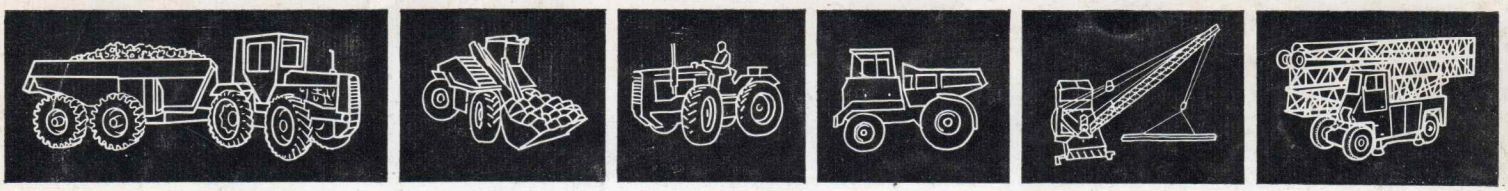
Alternative tyres—as stated
Power operated track adjustment
Front ballast weights, Wheel weights, Water ballast } as required
Power take-off hydraulic pumps:
1. Vickers 25v—34 g.p.m. @ 2,500 lb/in² (154 litres/min. @ 175,7 Kg/cm²) maximum.
2. Hamworthy 2116—36 g.p.m. @ 2,500 lb/in² (163 litres/min. @ 175,7 Kg/cm²) maximum.

Steel safety cab (BS 4063 Impact and Crushing Tests).

Dimensions

(Fitted 12.00X38X6 ply wheels and tyres)

	Ft.	in.	M.
Overall length—standard tractor	12	11	3,94
Overall width—minimum track (64")	6	9	2,06
Overall width—maximum track (80")	8	1	2,46
Overall height—highest non-removable part	6	8	2,03
Height to average driver's eye level	7	6	2,29
Wheelbase	6	3	1,90
Ground clearance	1	4	0,41
Turning radius over outside of tyre at 80" track	16	6½	5,04



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Muir-Hill

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Design, Production, Sales and Service
Muir-Hill Limited
Bristol Road, Gloucester GL1 5RX, England.
Telephone: Gloucester (0452) 21481. Telex: 43179

Spares
60 Oakfield Road, Altrincham, Cheshire, England.
Telephone: Altrincham (061 928) 2674-5. Telex: 66775

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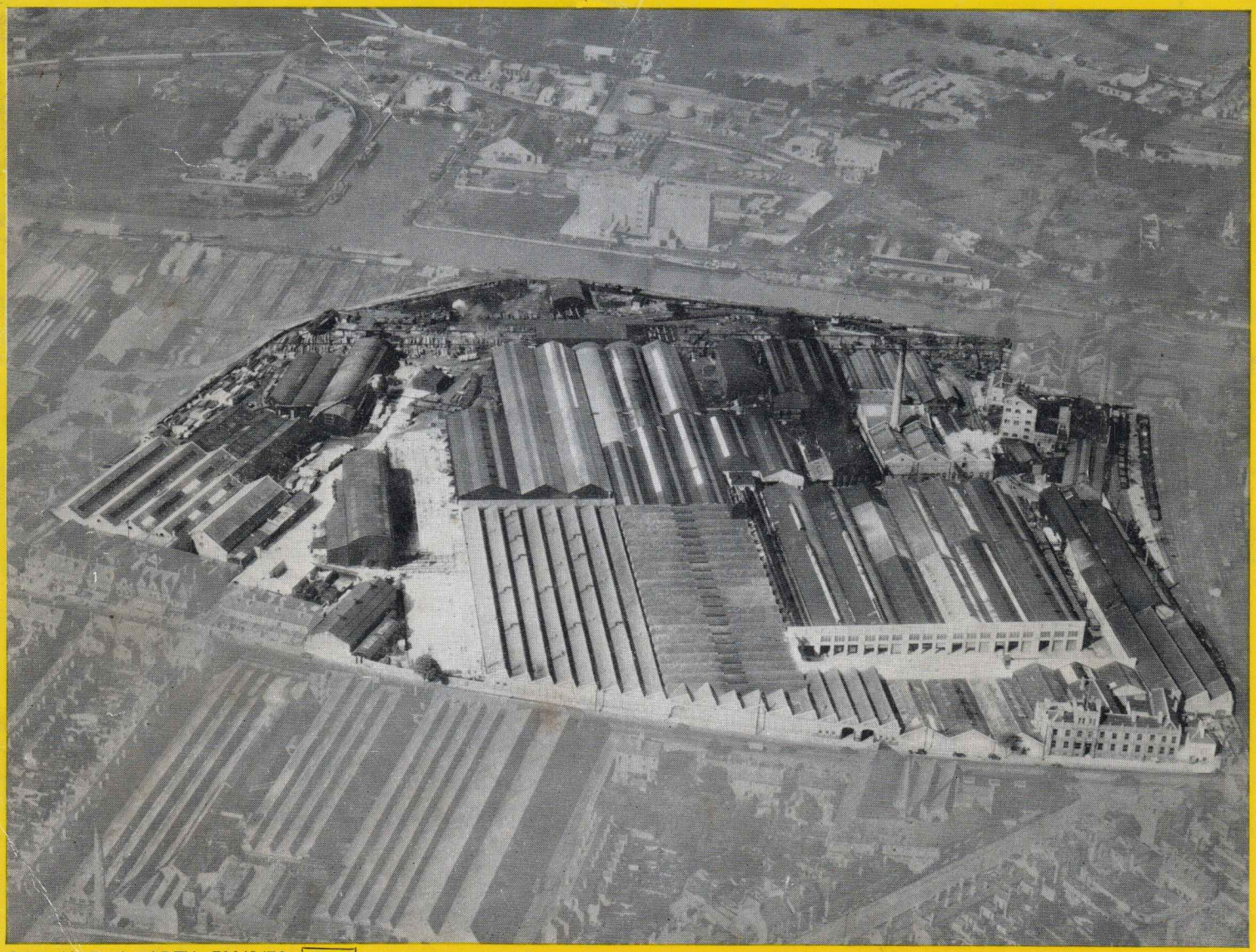

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