



International

Full Synchromesh and
Hydrostatic Tractor Range



International



The Tractors with today's most advanced Transmissions

454 Synchronesh Transmission

52 ENGINE HP - 42.5 PTO HP - 140 LB FT TORQUE

474 Synchronesh Transmission

474 Hydrostatic Drive

61.9 ENGINE HP - 49 PTO HP - 155 LB FT TORQUE

574 Synchronesh Transmission

574 Hydrostatic Drive

68 ENGINE HP - 54 PTO HP - 184 LB FT TORQUE

674 Synchronesh Transmission

78 ENGINE HP - 63 PTO HP - 188 LB FT TORQUE

International 454

synchronmesh transmission



INTERNATIONAL 454 Synchronmesh

A new concept in tractor farming the 454 has been designed from the ground up for greater comfort and convenience with increased performance. The International 454 Full Synchronmesh tractor has a spacious clearway deck with hip level controls, finger-tip power steering, a de-luxe seat and a choice of safety cab or safety frame plus many other advanced features; the 454 tractor, bonus productivity a joy to drive and outstanding in its horsepower class.

454 Specifications

*2,934 cm³ direct injection engine.
38.8 KW (52 hp) max. Engine.
31.3 KW (42.5 hp) max. Pto.
19.37 kgm (140 lb/ft) max. Torque.
Lift at link ends 1515 kg
(3340 lb) approx.
Tyres : front 5.50-16 6 ply
rear 12.4/11-32 6 ply.*

International 474 and 574

synchronmesh transmission and hydrostatic drive



474-574 Synchronmesh

Tractors that offer power, strength and performance to cater for all farming needs. With a smoothness of performance giving maximum workpower, these tractors never tire. Quick, smooth shifting of the synchronmesh transmission allows all the eight forward and four reverse speeds to be used with great efficiency. Packed with features such as Hydraulic Independent Pto, Hydraulic self equalising brakes, Hydrostatic power steering, walk-through-deck.

474-574 Hydrostatic

Hydrostatic drive – the most productive transmission in farm tractors today. Infinitely variable speeds from 32 km/h (20 mile/h) forward to 14.5 km/h (9 mile/h) in reverse without a break in power. Maximum use of horsepower at all times and under all conditions. Excellent matching of Pto loads with ground speeds. Hydrostatic power steering, Hydraulic self equalising disc brakes, and Hydraulic Independent Power-take-off. The International 474 and 574 Tractors designed to increase output with less effort.

474 Specifications

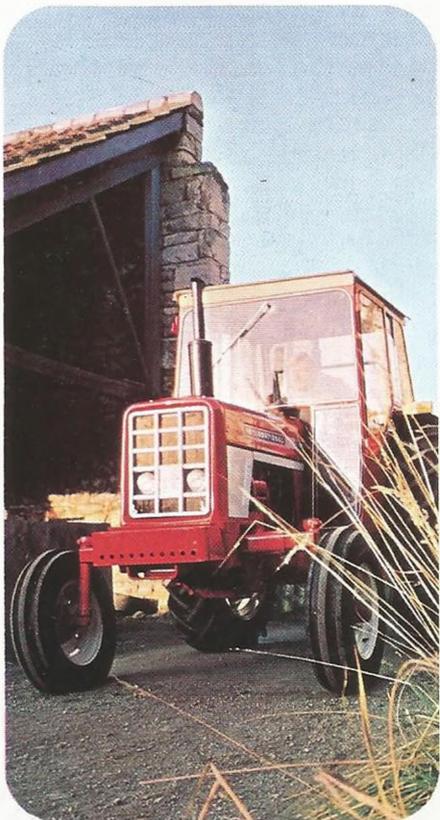
3,380 cm³ direct injection engine.
46.2 kw (61.9 hp) max. Engine.
36.5 kw (49 hp) max. Pto.
21.5 kgm (155.5 lb/ft) max. Torque.
Lift at link ends 1790 kg
(3950 lb) approx.
Tyres front 6.00-16 6 ply
rear 12.4/11-36 6 ply.

574 Specifications

3,915 cm³ direct injection engine.
50.7 kw (68 hp) max. Engine
40.6 kw (54.4 hp) max. Pto.
24.29 kgm (184 lb/ft) max. Torque.
Lift at link ends 1790 kg
(3950 lb) approx.
Tyres front 6.00-16 6 ply
rear 12.4/11-36 6 ply.

International 674

synchromesh transmission



674

Everything about the International 674 tractor is designed to give you versatile and reliable work power. Low profile with good ground clearance; hip level controls and clearway deck to give a really comfortable driving position; plus Hydrostatic Power Steering, Hydraulic Independent Pto, Self Adjusting and Equalising Brakes and many other advanced features make this tractor a pleasure to drive. The International 674 – another way of saying power.

Specifications

3,915 cm³ direct injection engine.
58.2 kw (78 hp) max. Engine.
47 kw (63 hp) max Pto.
26 kgm (188 lb/ft) max. Torque.
Lift at link ends 1790 kg
(3950 lb) approx.
Tyres front 7.50-16 ply
rear 13.6/12-38 6 ply.



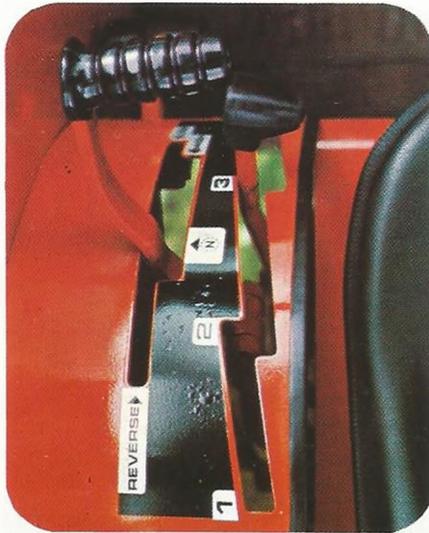
International

A tractor range - tough, reliable
and built to last



International

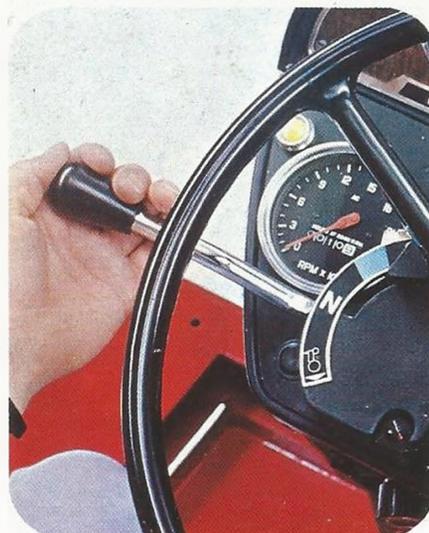
Full synchromesh and hydrostatic drive today's most advanced transmissions



IH Hydrostatic Drive

This is the simplest form of transmission available today. It has already been used in many parts of the world, so you know it has been thoroughly tried and tested.

In engineering terms there is nothing new about the principle of Hydrostatic energy transfer; it is used in many aspects of industry today. International Harvester were the first major tractor manufacturing company to successfully use Hydrostatic drive in the transmissions of production tractors of various sizes.



Full Synchromesh Transmission

The fully synchromesh International transmission gives you an automotive type of gear change. It provides 8 forward speeds and 4 reverse. Each tractor with the exception of the 674 offers you a choice of four fully synchromesh transmissions. For extra ease of speed change when under load or on the move, the optional IH Torque Amplifier is available. With a touch of the T/A lever, each basic gear speed is reduced by 17%, with full engine braking in all gears. This gives you 16 forward and 8 reverse synchromesh gears (except the 674).

How IH Hydrostatic Drive Works

The tractor engine drives a variable output hydraulic pump which supplies oil to a variable speed hydraulic motor. This in turn is connected to the final drive and rear wheels. Variable output of pump and speed of motor are both jointly controlled by the speed control lever. With IH Hydrostatic transmission you have an infinitely variable choice of speeds from 32 km/h (20 mile/h) forward to 14.5 km/h (9 mile/h) reverse with never a break in power.

A further refinement is the provision of a low range, giving increased torque for heavy tillage and work with heavy draft loads. A 'Foot-'n-'inch' pedal in the usual clutch position allows close manoeuvring when attaching equipment.

There are no gears to shift. There is no clutch pedal. You can now do every job at exactly the right ground speed from 32 km/h (20 mile/h) above to 14.5 km/h (9 mile/h) below with immediate response from the hydraulics – all the time – at the most economical engine speed. This adds up to peak performance – for example.



MAXIMUM USE OF HORSEPOWER AT ALL TIMES UNDER ANY CONDITIONS.

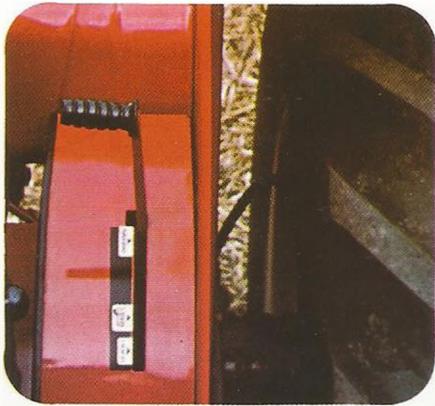
Hydrostatic drive enables you to utilize maximum horsepower at any speed. Maximum horsepower is rated at 2400 rev/min. So in ploughing, for example, if the rev/min decreases under heavy load, all you do is decrease ground speed until the tachometer indicator reaches 2400. At this point you are utilizing maximum horsepower. For lighter loads, ground speed may be increased.

VARIABLE SPEEDS, ALL TIMES UNDER ALL CONDITIONS.

In planting, or close cultivation conditions, you match engine rev/min to ground speed to get maximum efficiency. Just move the speed control forward and cut back the throttle until you can maintain the desired ground speed at the lowest rev/min to provide the necessary power to do the job – at minimum fuel consumption.

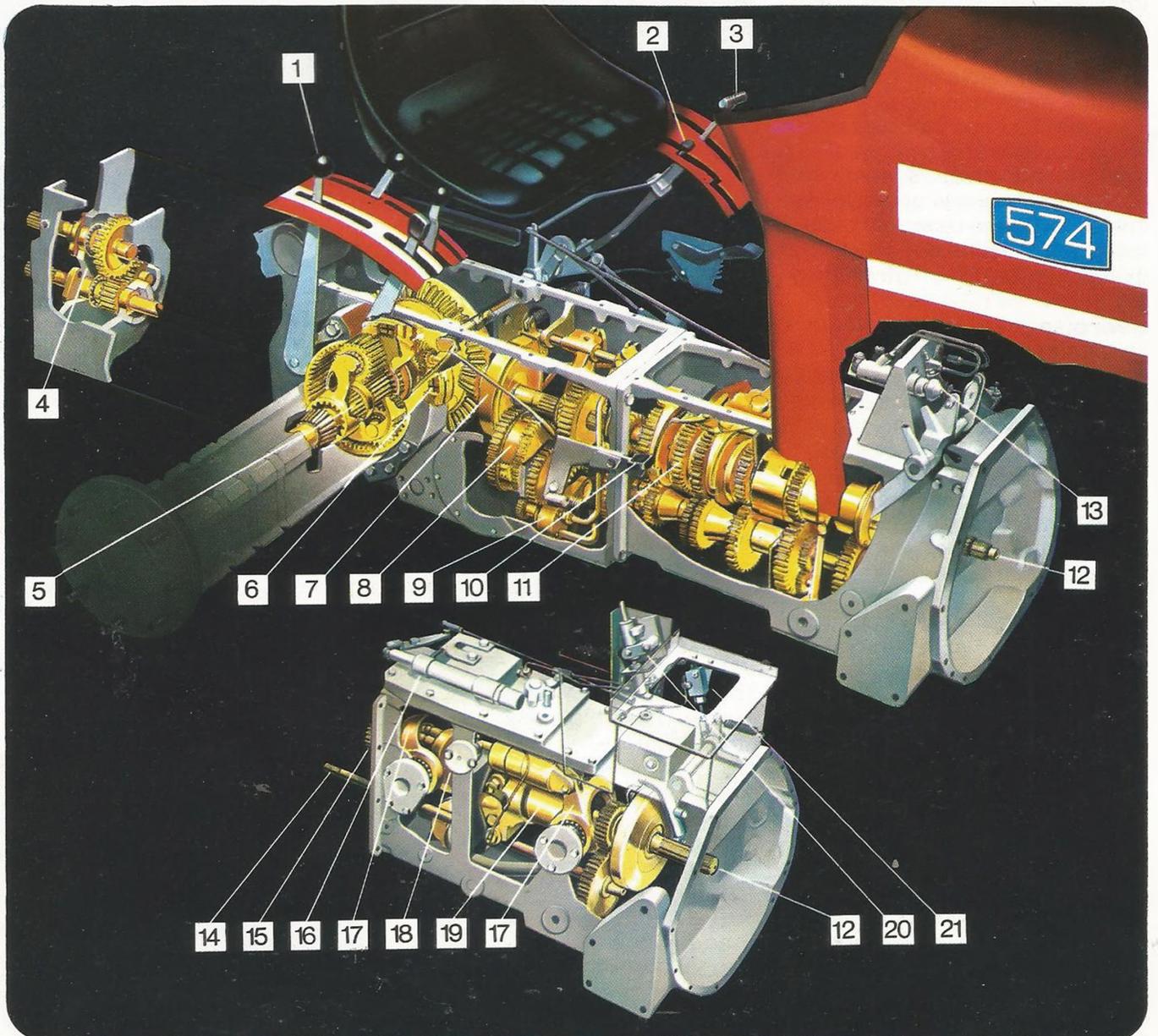
MATCHING PTO LOADS WITH GROUND SPEEDS.

Pto work for a hydrostatic tractor is a 'natural'. Set your engine rev/min to the required pto speed and move the speed control to the fastest practical ground speed. In heavy loads you reduce the ground speed; with lighter loads you increase ground speed.



Key to Synchronmesh and Hydrostatic Transmissions

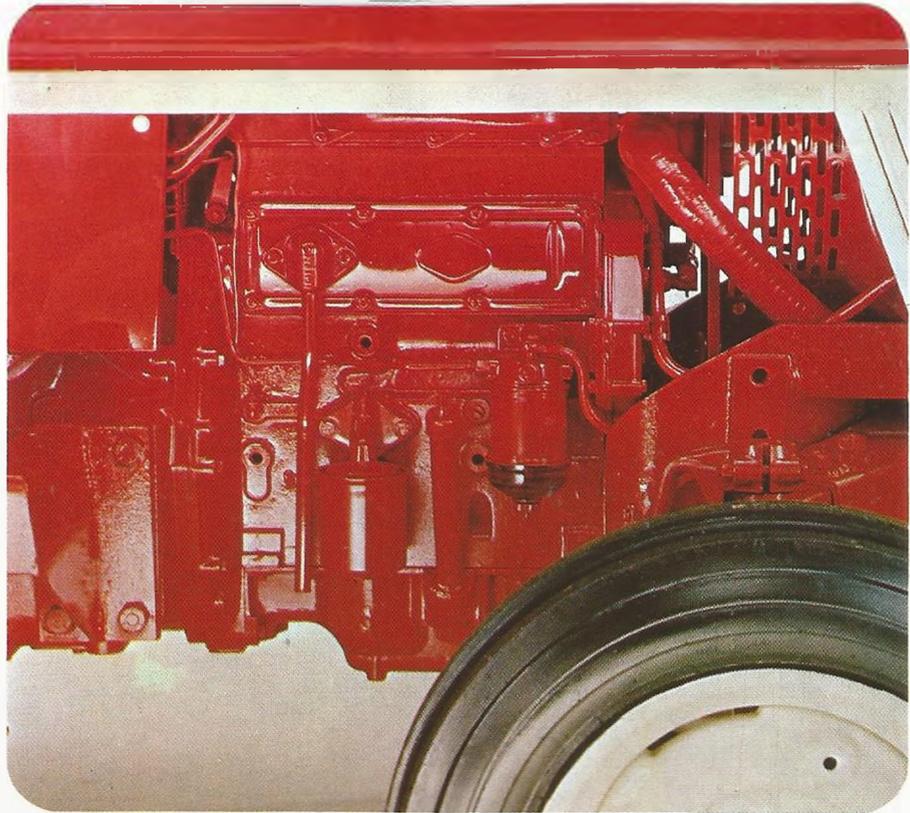
- | | |
|--|--------------------------|
| 1 Hip-level hydraulic controls | 12 Power input shaft |
| 2 Gear shift lever—four speeds | 13 Brake equaliser valve |
| 3 HI-LO-REV range lever | 14 Power take off |
| 4 Twin-shaft IPTO—555 and 1004 rev/min | 15 Power-output-shaft |
| 5 Planetary final drive | 16 Drive control valve |
| 6 Hydraulic actuated wet disc brakes | 17 Swash plate |
| 7 Parking brake band | 18 Hydraulic motor |
| 8 Hydraulic actuated IPTO clutch | 19 Hydraulic pump |
| 9 Hydraulic pump—45 ltr (10 gal) per min | 20 Speed ratio linkage |
| 10 Differential lock—stops wheel spin | 21 Foot and inch valve |
| 11 Pressure lubricated power train | |



International

More features... more output... more economy... more productivity

These are high performance modern power units, smooth running with economical fuel consumption. The high thermal efficiency of these direct injection engines gives instantaneous easy starting. Notice the clean design and ease of servicing; electrical equipment on the one side, oil and fuel services on the other. These long stroke, high torque engines are fitted with a self-lubricated rotary injection pump, a replaceable micronic fuel filter element and hydraulic governors for fast responsive control and simplified maintenance. The cylinder head includes rotary valves for long life, helicoidal intake manifold for complete air-fuel mixture giving optimum combustion and a large exhaust manifold for faster out-let of exhaust gases.



Swing-out Oil Cooler

These tractors have many hydraulically operated devices to make the driver's life easier. For this reason there is an oil cooler to keep constant oil viscosity for optimum efficiency under varying climatic conditions. The swing-out oil cooler and radiator behind are easily serviced and cleaned after removal of the grill.

Fuel tank – 77 ltr (17 gal)

The fuel tank, placed behind the driver's seat, is easy to get at and helps to make an enclosed driver's compartment. One filling of this 77 ltr (17 gal) tank is sufficient for a good day's work.

'Dyna Life' Clutch

The material on the clutch plate was originally developed for the exacting needs of the aerospace industry. It is cerametallic, and gives you reliable performance under all conditions and provides a far longer clutch life. An electrically operated safety switch ensures that the engine cannot be

started unless the clutch pedal is depressed.

Differential Lock

The final drive is a planetary design with a differential lock as standard equipment. INTERNATIONAL, you may remember, was first to introduce differential lock back in 1956.

Dry Air Cleaner – 99.98% Efficiency

The air cleaner has an exceptionally high efficiency level of 99.98% – thanks to a filter element that will filter down to a micron and its own automatic dirt unloader. A welcome change from the old oil bath air cleaners that need frequent attention.

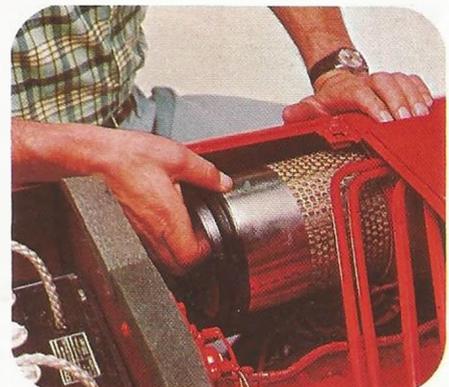
Self-Adjusting Hydraulic Disc Brakes

Don't worry about one set of brake linings wearing down through ploughing or similar work. These brakes have

independent master cylinders which adjust to the wear and thickness of the linings. When latched together for road travel or similar work, a balancer valve ensures equal braking on both rear wheels.

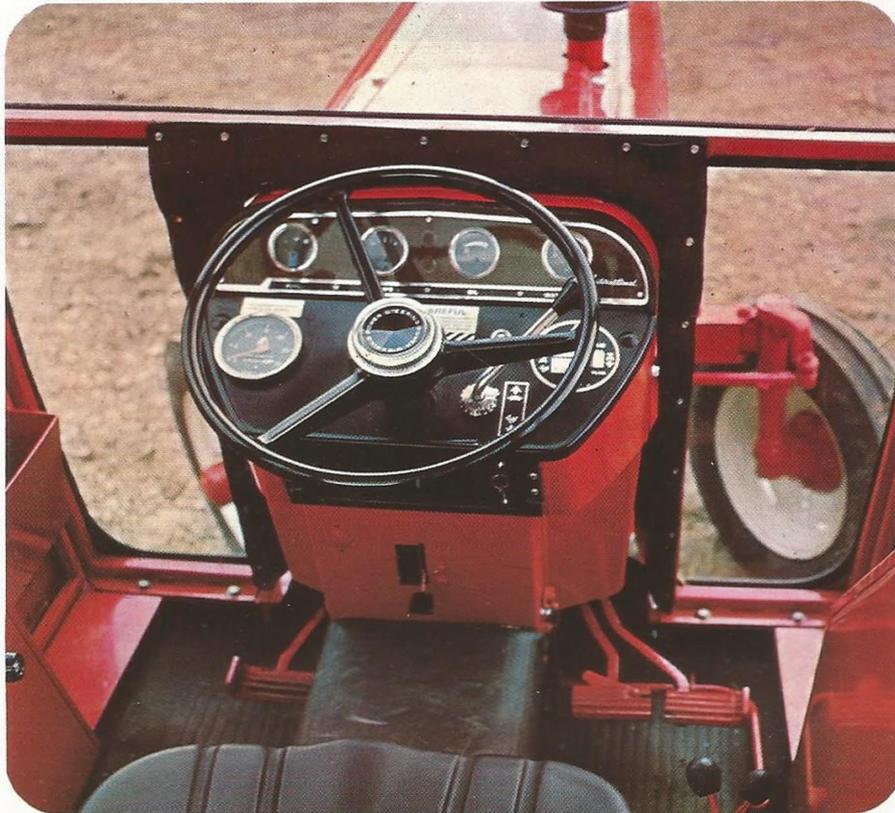
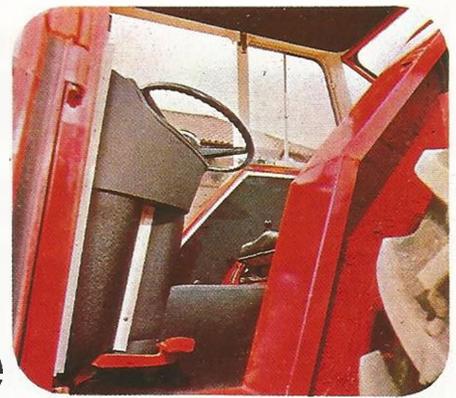
Hydraulic Independent Pto

The Independent Power take-off of each tractor is hydraulically engaged for smooth, instant



International

Tractor range designed for operator convenience



Hip level controls

See how much more logical is the layout. All the controls are now within easy reach, coming naturally to hand, making their operation more efficient and their reaction more critical.

Full Instrumentation

All the information you need is available from the tachometer, the ammeter, fuel, oil pressure and heat indicator gauges, displayed on the modern automotive instrument panel. The optional speedometer is supplied as standard on the hydrostatic drive model.

Hydrostatic Power Steering

As a standard feature the power steering takes a lot of the effort out of driving, it makes the tractor respond faster to your commands taking all the hard work out of steering on the field or road. You can even steer with the engine stopped.

take-up. Dual speed pto's are available. The control is conveniently positioned for the driver's right hand.

Fully Live Hydraulics

The extra big capacity pump, 45 ltr (10 gal) a minute, enables the implement hydraulics to work at an impressive speed. On front-end loading, for example, this is two or three times faster than most tractors. The 3 point linkage

torsion-bar top link sensing gives extremely accurate control. Category 1 and 2 linkage is standard.

Choice of Drawbars

There is a choice of two drawbars, both with adjustable height clevis and conforming to SAE and BS dimensions. These are a three positioned drawbar incorporating a pick up hook, designed for use with the automatic hitch ; or a swinging drawbar.

Clear-way deck for easy mounting

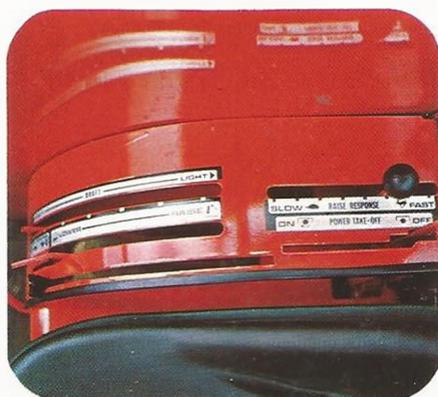
The complete operator's compartment has been designed on the new tractor, to make it the easiest to get on and off. The gear levers and fuel tank have been moved, and the extremely comfortable, fully adjustable seat is placed low down and forward of the rear axle. The diff-lock pedal folds away and pendant brake and clutch pedals simplify access.

Telescopic Front Axle

The Adjustable front axle is telescopic with a tapered, welded box-section axle assembly giving great strength. Wheel widths adjust from 1230 to 2030 mm (52 to 80 in) at 101 mm (4 in) intervals. 674 only 1372 to 2030 mm (54 to 80 in).

Choice of Safety Cab or Frame

All tractors are available with either Safety Cab or Safety Frame. A feature of the Safety Cab is the exceptional all-round vision. It has two doors, hinged rear window for access to implements, windscreen wiper, trafficators, and a sound absorbing roof. Not only is the Safety Cab a completely enclosed, draught proofed cabin for the driver but, in fine weather, the cab can be easily and quickly stripped to leave only the safety frame. Flexible cladding is available for attaching to the safety frame.



International Tractors

Designed from the ground up to work harder and make your life easier

Low Profile

Made possible because of advanced design approach and new driver's position.

Good Clearance.

Smooth under-side with no projections to snag crops.

Sharp Design.

Smarter overall shape with a tidy engine compartment.

New Driving Position.

Lower, in front of rear axle with fuel tank behind. Simpler to mount, a more comfortable ride.

Clear Deck.

No trips or traps when you get on or off.

Power Steering – Hydrostatic.

It even steers with the engine stopped. The absence of mechanical linkage gives a neater and tidier layout.

Clean Engine Design.

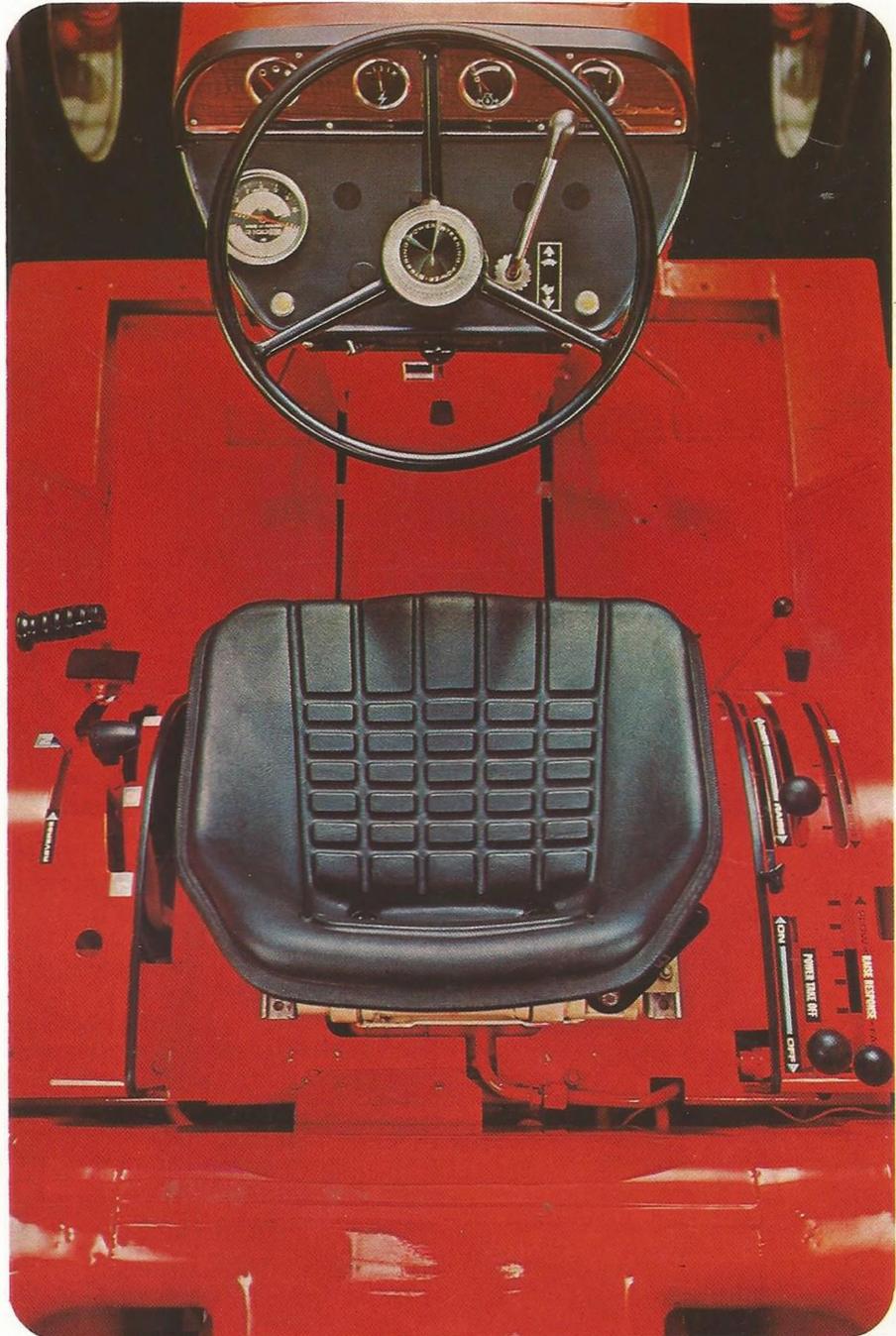
No jungle of pipes and wires.

Hip Level Controls.

Down by your sides, they come naturally to hand.

Safety Cab or Frame.

Both with exceptional all-round visibility, modern design



The Company's policy is one of continuous improvement and development, therefore specifications are subject to change without notice. Illustrations may include optional equipment and accessories and may not include all standard equipment.



INTERNATIONAL HARVESTER

International Harvester Company of Great Britain Limited
PO Box 25, 259 City Road, London EC1P 1AD