ALBION
CHIEFTAIN
SUPER 6

TRACTOR MODEL

From 1st June, 1965, the 9th wheel tractor version will be fitted with an 0.400 125 bhp, engine and 1,400 Series propeller shaft, as standard. It will then be ready to run.

For full details see Specification No. L.756.
RUGGED CHASSIS WITH BOLTED

The Chieftain Super Six range sets a new standard in 7-tonner design. It is built to tackle the toughest jobs and maintain fast operating schedules.

The Leyland "Power-Plus" O.370 engine gives top performance with a reserve of power for arduous conditions and incorporates many new features which guarantee trouble-free service with stringent fuel economy.

Power is transmitted through a 14-in. hydraulically operated clutch and robust 5-speed gearbox, with optional overdrive ratio, to a heavy-duty hub-reduction rear axle which has already proved its merit in the toughest service.

Powerful air operated hydraulic brakes with large lining areas ensure maximum safety, while the re-circulatory ball type variable ratio steering provides easy manoeuvrability and exceptionally light control at speed.

O.370 HIGH EFFICIENCY DIESEL

This 6-cylinder high-speed diesel has a net output of 106 b.h.p. at 2,200 r.p.m., and a maximum torque of 372 lb. ft. at 1,600 r.p.m. Of entirely new design, but backed by traditional Leyland engineering, the O.370 is designed and manufactured to meticulous standards of accuracy. Excellent aspiration and cylinder scavenging are obtained from the cross-flow cylinder head which positions inlet and exhaust manifolds on opposite sides of the engine, and inlet and exhaust valves alternately along the head.

The radial arrangement of six cylinder head studs around each cylinder bore ensures equal stud loading and freedom from thermal distortion.

Renewable hardened cast-iron cylinder liners, a heavy-duty nitrided seven-bearing crankshaft with torsional vibration damper and high efficiency mechanically governed fuel injection equipment, are among the features contributing to a long-life capacity for hard work.
FRAME CONSTRUCTION

All models are of the forward control type and are available with left- or right-hand driving controls. The range consists of three haulage models, three tipper models, and a tractor for fifth-wheel coupling. The solo vehicles operate at a gross vehicle weight of 292 cwt. (94,864 lb., 43.346 kg.) and the tractor with semi-trailer at 358 cwt. (100,000 lb., 48,587 kg.) gross train weight.

Robust frame construction is an outstanding feature of the Chieftain Super Six. Extra strength has been added to the load carrying portion of the frame on all models by full depth reversed “L” flitch plates, which extend from the rear cab mounting to the frame ends. The frame is well braced by stay tubes and pressed steel crossmembers bored in position, while fitted bolts linking road spring brackets to stay tubes reduce frame stresses to a minimum.

TABLE OF WEIGHTS AND LOADINGS

<table>
<thead>
<tr>
<th>Model</th>
<th>Wheelbase</th>
<th>Type</th>
<th>Equipment</th>
<th>Chassis and Cab Weight (cwt.)</th>
<th>*</th>
<th>Payload Plus Body</th>
<th>Gross Vehicle Weight</th>
<th>Turning Circle</th>
</tr>
</thead>
<tbody>
<tr>
<td>C60</td>
<td>10 ft. 11 in.</td>
<td>Haulage</td>
<td>674 cwt.</td>
<td>7,603 lb.</td>
<td>4 cwt.</td>
<td>159 cwt.</td>
<td>16,520 lb.</td>
<td>42 ft. j 509 in.</td>
</tr>
<tr>
<td>C61</td>
<td>11 ft. 11 in.</td>
<td>Haulage</td>
<td>761 cwt.</td>
<td>8,007 lb.</td>
<td>4 cwt.</td>
<td>149 cwt.</td>
<td>17,016 lb.</td>
<td>38 ft. 6 in.</td>
</tr>
<tr>
<td>C62</td>
<td>12 ft. 0 in.</td>
<td>Haulage</td>
<td>821 cwt.</td>
<td>8,656 lb.</td>
<td>4 cwt.</td>
<td>130 cwt.</td>
<td>17,740 lb.</td>
<td>35 ft. 6 in.</td>
</tr>
<tr>
<td>C63</td>
<td>13 ft. 0 in.</td>
<td>Haulage</td>
<td>892 cwt.</td>
<td>9,408 lb.</td>
<td>4 cwt.</td>
<td>116 cwt.</td>
<td>18,616 lb.</td>
<td>32 ft. 6 in.</td>
</tr>
<tr>
<td>CE33</td>
<td>8 ft. 4 in.</td>
<td>Tipper</td>
<td>656 cwt.</td>
<td>7,204 lb.</td>
<td>4 cwt.</td>
<td>114 cwt.</td>
<td>15,880 lb.</td>
<td>28 ft. 6 in.</td>
</tr>
<tr>
<td>CE34</td>
<td>9 ft. 0 in.</td>
<td>Tipper</td>
<td>722 cwt.</td>
<td>7,900 lb.</td>
<td>4 cwt.</td>
<td>114 cwt.</td>
<td>16,936 lb.</td>
<td>26 ft. 6 in.</td>
</tr>
<tr>
<td>CE35</td>
<td>9 ft. 10 in.</td>
<td>Tipper</td>
<td>792 cwt.</td>
<td>8,600 lb.</td>
<td>4 cwt.</td>
<td>114 cwt.</td>
<td>18,736 lb.</td>
<td>26 ft. 6 in.</td>
</tr>
<tr>
<td>CE36</td>
<td>10 ft. 10 in.</td>
<td>Tractor</td>
<td>862 cwt.</td>
<td>9,308 lb.</td>
<td>4 cwt.</td>
<td>116 cwt.</td>
<td>20,636 lb.</td>
<td>26 ft. 6 in.</td>
</tr>
</tbody>
</table>

*Equipment includes water, full tank of fuel, spare wheel and tools.

SPHEROIDAL COMBUSTION CHAMBER

Power-Plus engines incorporate Leyland's latest technical development—the spheroidal combustion chamber. Far in advance of the normal toroidal cavity, this form of combustion chamber works in conjunction with Leyland multi-hole injection atomisers and mixes the fuel to a degree hitherto unknown, and extracts the maximum power from it.
SPIRAL BEVEL AXLE WITH HUB REDUCTION

Designed to withstand the most rigorous treatment, this axle gives increased strength with reduced weight. The drive from the axle input flange uses two reduction ratios, one at the bevel and the other in the hubs, thus permitting the use of a very substantial bevel pinion driving a rigidly supported crown wheel bevel rear and differential unit. Oil filled into the centre casing lubricates the whole axle including the hub gear and the taper-roller bearings supporting the hubs.

STRESS-RELIEVED CROWN WHEEL AND PINION

The hub reduction rear axle, as well as reducing torque transmitted by the axle shafts, reduces the stress in the crown wheel and pinion to an extremely low level.

The usual disparity in size between the pinion and crown wheel that exists on conventional axles is cured and the pinion is generously dimensioned — another example of forward-thinking design.

AIR OPERATED HYDRAULIC BRAKES

In the air-over-hydraulic system installed on the Chieftain Super Six the compressed air generated is converted into hydraulic pressure. The footbrake pedal is directly coupled to the air control valve, which is fed from a high capacity air pressure reservoir. Air pressure is provided by a twin-cylinder compressor mounted on the engine. The "two-leading-shoe" type hydraulic brake assemblies are equipped with large area mounted linings which show a high degree of resistance to wear and fade.

The handbrake is directly coupled to the rear wheel shoes by mechanical linkage.

Total effective braking area 615 sq. in. (3,580 sq. cm.).
5-SPEED GEARBOX

The 5-speed gearbox is a really heavy-duty unit with large diameter shafts carrying wide-faced gears. All gears are of case-hardened nickel-chrome steel, forward gears running in constant mesh, and engaged by sliding dog clutches. The 3rd, 4th and 5th speeds have helical gears to ensure silent running. To improve fuel economy, or obtain a higher road speed, a helical toothed overdrive 6th speed, with a 0.75 to 1 ratio, can be incorporated at an extra charge. Provision has been made for the fitting of a low or high-speed power take-off on the side of the box.

EPICYCLIC HUB REDUCTION

The hub reduction is provided by epicyclic gearing, comprising a case-hardened sun wheel machined on the axle shaft, and three planet wheels which rotate in a fixed annulus, transmitting the drive to the hubs. The sun wheel floats in mesh with the planets, so that the driving forces are evenly distributed on the three gears and their bearings.

Axle shafts are lightly stressed, the torque applied to them being a quarter of that in a conventional axle.

RE-CIRCULATORY BALL TYPE STEERING

The high efficiency worm type steering unit fitted has a variable ratio which increases as the steering lock is applied, and thus greatly reduces the effort expended in manoeuvring a laden vehicle. The rolling action of the balls reduces friction to a minimum and ensures easy, positive control at all road speeds.

WELL DESIGNED FRONT HUBS

The well-proportioned stub axles, machined from steel forgings, are carried in phosphor-bronze bushes. A hardened steel thrust button, specially treated to prolong life, takes the king pin thrust centrally on a single point at the base of the pin. Wheel hubs are mounted on large taper roller bearings which are packed with grease. Efficient oil seals and throwers are incorporated in the design to prevent oil and grease coming into contact with the braking surfaces.
COMPREHENSIVE RANGE OF CHASSIS

THE CHIEFTAIN SUPER SIX RANGE CONSISTS OF SEVEN HIGH PERFORMANCE CHASSIS SUITABLE FOR A WIDE VARIETY OF BODIES
PRESSED STEEL EASY-ACCESS LUXURY CAB

SCIENTIFICALLY-STRESSED CAB
SUB-STRUCTURE
The steel cab sub-structure consisting of deep box section pressings welded together, promotes strength and long life for the whole cab structure. One-piece door frames reduce any possibility of distortion. All under-surfaces are fully treated with weather sealing and great attention has been given to draught-sealing and thermal insulation.

ALL-ROUND VISION
Full curved windscreen with twin wipers, swivelling quarter lights and full-drop winding windows, supplemented by a central rear window with curved quarter lights on each side, ensure perfect all-round visibility. The total glazing area is approximately 3,000 sq. in. (19,355 sq. cm).

LUXURY CAB WITH CAR COMFORT
This modern cab offers every driving comfort. Its double skin with glass-fibre insulation - foam rubber seats - all-round visibility - flexible cab mountings, and well placed controls, all contribute to banish driving tension by eliminating strain and effort. Luxuries available include a built-in radio, and a de-luxe heating and ventilating system incorporating a powerful demister for the wrap-around windscreen.

EASY ACCESS
Easy access to the cab is a great feature; one step from the kerb and you're in. The comfortable driver's seat is adjustable vertically and longitudinally. The underside surfaces of cab and front wings are treated with weather sealing.