

THE UNIVERSAL

'Jeep' *IN INDUSTRY*

TRUCK-TRACTOR-WELDER-COMPRESSOR-TOW TRUCK

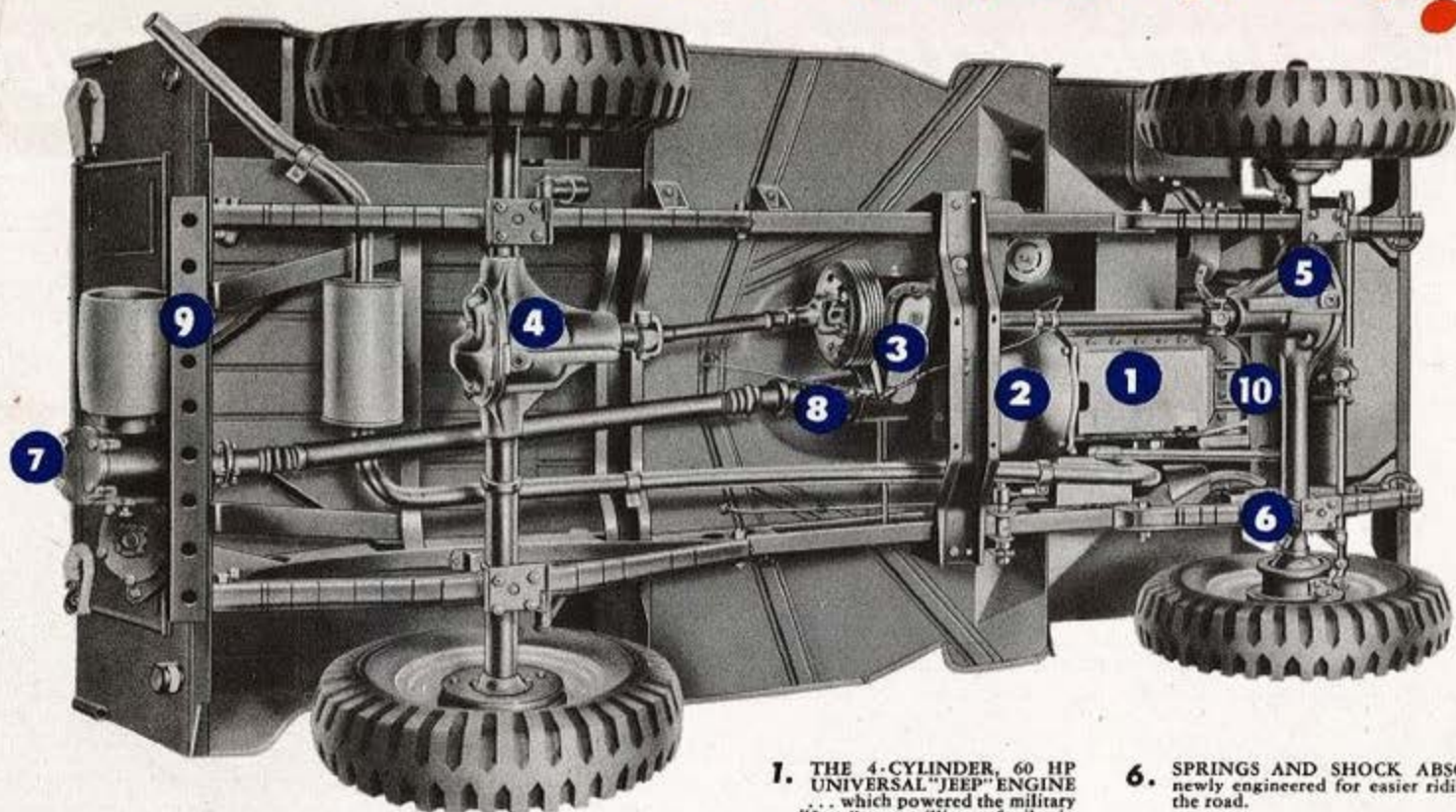


WILLYS-OVERLAND MOTORS, INC.

TOLEDO, OHIO

Here is what makes the 'Jeep'

SO POWERFUL!



1. THE 4-CYLINDER, 60 HP UNIVERSAL "JEEP" ENGINE . . . which powered the military "Jeep" over millions of miles in all parts of the world has been improved for even greater economy and more versatile performance.

2. TRANSMISSION . . . 3 speeds forward, 1 reverse in 2-wheel drive for economical highway travel.

3. TRANSFER CASE . . . attached to the transmission, engages front-drive axle for 4-wheel drive. Transfer gear ratios give the "Jeep" 6 speeds forward and 2 reverse.

4. REAR-DRIVE AXLE . . . drives the "Jeep" at 60 m.p.h. in 2-wheel drive.

5. FRONT-DRIVE AXLE . . . teams with rear axle in 4-wheel drive for hard pulling in mud, sand or snow.

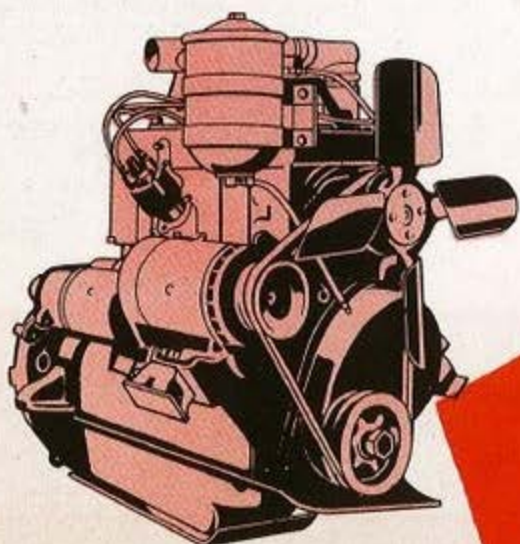
6. SPRINGS AND SHOCK ABSORBERS . . . newly engineered for easier riding on or off the road.

7. REAR POWER TAKE-OFF . . . furnishes power from spline-shaft drive or pulley drive to operate paint sprayer, cement mixer, other pulley-driven tools.

8. CENTER POWER TAKE-OFF . . . powers welders, blowers, compressors, and other V-belt-drive equipment.

9. DRAW BAR . . . provides 9 horizontal positions and 2 heights for proper tracking of towed implements.

10. FRONT POWER TAKE-OFF . . . provides full engine power for capstan or drum winch, pump, and other front-mounted equipment.



THE
Mighty **Jeep**
Engine

HERE ARE SOME OF THE MANY APPLICATIONS OF THE UNIVERSAL 'JEEP' IN INDUSTRY . . .



LINESMEN find the "Jeep" dependable and surefooted no matter what the terrain or weather. And the Universal "Jeep" provides plenty of space for necessary repair tools and supplies. Utilities and pipe line companies get to the trouble fast with the Universal "Jeep."



ON THE JOB at a minute's notice! Universal "Jeep" equipped with power-driven wrecker lift handles any disabled passenger car to provide efficient, moneymaking service for gas stations, garages. Ample room, too, for tools for on-the-spot repairs.

In industry and on the nation's farms, "Jeep working" is coming to mean "better working" and "more efficient" working. Contractors and plant executives are finding this especially so right from the minute the "Jeep" goes to work for them. For no other vehicle today is so versatile, as readily changed from job to job, with no loss of time, as the Universal "Jeep."

There are many advantages to "Jeep working." Its 60 hp engine, 4-wheel drive, selective high and low speed gear ratios, small size, permit it access to all areas, with equal and often more power than plant tractors. Its three power take-offs at front, middle, and rear invite power-driven equipment to be mounted for greatest convenience and greatest necessity. The ease of attaching working units to the "Jeep" means little time lost when performing an almost endless variety of tasks. Yet when transferring from one job to another, even with mounted power-driven equipment, road speed compares to that of a conventional pick-up. But the "Jeep" is more than tractor or pickup alone, for *whenever necessary*, on a moment's notice, it can be used as a personnel carrier, or even an emergency ambulance.



TRANSPORT PERSONNEL to the job. Valuable time is saved when working crews such as these loggers, together with their equipment (in this case a chain saw, tools, axes, etc.) can be taken right up to the work location. Mud, snow, primitive logging roads, are overcome by the "Jeep."



WHEN THERE'S WORK to be done, count on the "Jeep" being able to get there and do the job well! Here the mighty "workhorse of the world" is equipped with a 200 amp. welder mounted in the bed and operated from the center power take-off by V-belt drive.



OPENING ROADS is another of the many jobs all in the stride of the mighty "Jeep." It is used successfully to plow sidewalks, driveways, city and town roads, and clean areas for service stations, manufacturing concerns. Four-wheel drive gives traction on icy roads.



PORTABLE AIR COMPRESSOR supplies up to 60 cubic feet of free air per minute at 100 lbs. per square inch pressure, to power pavement breakers, rock drills, diggers, vibrators, riveting hammers, 6-gun paint sprayers, sand blasters, chain saws.



'JEEP' FIRE TRUCK

Filling a long-felt need of industries and rural communities incared beyond the reach of adequate fire protection, the "Jeep" fire fighter embodies a practical, low-cost way to safeguard life and property. Here it is shown operating a 120 lb. pressure pump from the front power take-off. Carrying all necessary equipment, a four-man crew, it will supply 375 gals. per minute from hydrants, ponds, wells and cisterns. A 200 gal., two-wheel trailer is available as optional equipment.



INDUSTRIES USE the "Jeep" as a plant tractor for moving all types of trailed loads within the plant and of course it's available at any time as an emergency personnel or tool carrier. With weather-proof cab, heater, and lights, the mighty worker is "rarin' to go" around the clock.



LIFTING a 600 lb. barrel of tar onto the bed of another "Jeep" is no trouble for this mighty workhorse of industry—the versatile Universal "Jeep." Equipped with a winch and crane, it also has a heavy-duty bulldozer mounted on the front end for added usefulness.

3 POWER TAKE-OFFS

TO PROVIDE **EXTRA POWER**
FOR EVERY JOB!

1.



1. THE FRONT POWER TAKE-OFF drives from the front end of the crankshaft directly off the engine and provides plenty of war-proven "Jeep" power for such useful implements as the capstan or drum winch, suction pumps, booster pumps.

2.



2. THE CENTER POWER TAKE-OFF on the rear of the transfer case can be equipped with a pulley for a V-belt drive of from one to four belts. Air compressors, electric welders, other similar equipment can be powered at this location.

3.



3. THE REAR POWER TAKE-OFF mounted on the frame rear cross member, provides the S.A.E. standard $1\frac{3}{8}$ " 6-splined shaft for driving a power-operated implement towed behind the vehicle. Two ratios are available. For belt-driven equipment, a pulley-drive unit is bolted to it, fitted with an 8" diameter pulley with speeds ranging from 255 to 2674 r.p.m., governor controlled.

SPECIFICATIONS

AXLES—Rear: Semi-floating. Six adjustable roller-bearings. Hypoid type drive gears and axle shaft of molybdenum steel. Gear ratio: 5.38. Front: live axle, tubular type. Steering king pins equipped with roller bearings. Lubricant $2\frac{1}{2}$ pints. Minimum road clearance $8\frac{1}{4}$ ".

BODIES—All steel, welded into one piece. Tailgate. Folding windshield. Fuel tank under driver's seat. Tool compartment in floor at passenger's seat. Tubular frame driver's seat. Exclusive spring construction in seats. Safety glass in windshield. Driver windshield wiper vacuum type. Passenger windshield wiper manual. Rear view mirror external type. Spare wheel and carrier.

BRAKES—(Service) Hydraulic, internal expanding, 9" chromium alloy drums. (Hand) Located on rear propeller shaft, 8" internal expanding type, cable controlled.

CLUTCH—Single plate, dry type, $8\frac{1}{2}$ " diameter. Torque dampener in clutch driven plate. Pre-lubricated clutch release bearing.

COOLING SYSTEM—Positive circulating water type. Efficient radiator. Directional cooling—full length water jacket. Double-row ball bearing packless centrifugal water pump. Adjustable V-type fan belt. Thermostatic water control. Temperature gauge on instrument panel. Capacity 11 quarts.

ELECTRICAL SYSTEM—35 ampere, two pole, two brush type generator, air cooled. Voltage and current regulator. Starter, 3 bearing type, Bendix drive. Battery 15 plates, 6 volt, 100 ampere-hour capacity. Distributor full automatic type. Firing order 1-3-4-2.

FRAME—Strong and rigid, double drop design with box channel side rails, K-member at rear, tubular cross member at front, four other cross members.

FUEL SYSTEM—Fuel tank $10\frac{1}{2}$ gallons capacity. Air cleaner, oil bath type; automatic manifold heat control. Fuel pump with screen and sediment trap, operated from camshaft.

SHOCK ABSORBERS—Hydraulic, two-way type, direct acting and re-fillable; rubber mounted.

SPRINGS—Semi-elliptic, parabolic leaf type. Length: front $36\frac{1}{4}$ "; rear 42". Spring shackles threaded U-bolt type. Front spring shackled at front to reduce road shock.

STEERING GEAR—Cam and lever type, 14-12-14 ratio; $17\frac{1}{4}$ " steering wheel, three spoke safety type. Turning radius 18 feet.

TIRES—6.00 x 16, 4-ply, "All-Service" type tread. Disc-type drop-center wheels, five mounting studs.

TRANSMISSION—Synchro-mesh, 3 speed type, silent helical gears. All anti-friction bearings, except reverse gear. Universal joints, needle roller bearing type. Two joints in each propeller shaft.

TRANSFER CASE—Gear ratios 1-1 and 2.43-1, giving vehicle six speeds forward and two reverse.

WHEELBASE—80"; vehicle overall length $122\frac{3}{4}$ "; overall width 59".

STANDARD EQUIPMENT—Front bumper; 4-wheel drive; four tires 6.00 x 16—4-ply; high frequency horn; driver windshield vacuum wiper; passenger windshield manual wiper; external rear view mirror; combination stop and tail light; beam control headlamps; parking lights in radiator grille; spare wheel and mounting; oil bath type air cleaner; oil filter; tools and jack; safety glass in windshield.

Engineered

TO MAKE YOU MONEY!

Designed

FOR THE TOUGHEST JOB—WAR!

CRANKSHAFT—Drop forged, counter-weighted, balanced statically and dynamically. Three replaceable, steel-backed babbit lined main bearings.

ENGINE—Mounted on four rubber supports. Four cylinders, L-Head type. Bore $3\frac{1}{8}$ ". Stroke $4\frac{1}{2}$ ". Horsepower 60 at 4000 R.P.M. Taxable horsepower 15.63. Piston displacement 134.2 cu. in. Compression ratio 6.48. Cylinder block hard grey iron; four bearing camshaft driven by silent timing gears. Lubrication system full pressure type—direct oil pressure to main and connecting rod bearings, camshaft and timing gears. All other parts

positively lubricated from oil spray holes in connecting rods. Floating type oil intake uses only clean oil. Planetary gear type oil pump externally mounted on left side and driven from spiral gear on camshaft. Oil capacity—4 quarts for refill. With oil filter empty—5 quarts.

PISTONS—Aluminum alloy, tin plated to prevent scuffing. Cam ground. Other piston features—heat-dam, T-slot and ribbed head. Two special compression rings, one oil control ring. Piston pins $\frac{1}{4}$ " dia. I-beam type connecting rods.