

TOVARNA ILI

XI-1, lub.

STUDIJSKA KNJIZNICA
MARIBOR

de 2270

TOVARNA AVTOMOBILOV IN MOTORJEV MARIBOR • YUGOSLAVIA

TAM 4000



The TAM 4000 is a truck for interurban and city freight transport and for operation on difficult country and mountainous terrains. Powered by an 84 BHP air-cooled diesel engine unit, the vehicle has a payload of 4000 kiloponds and, on level ground develops a maximum speed of 50 mph (81 kmph). When full-loaded the truck overcomes, in the first gear ratio, steep grades up to 33 per cent.

Front axle with shock absorbers and rear axle are bolted to semielliptic symmetrical leaf springs. Rear axle shafts are running in roller bearings and are fullfloating.

Power from the engine is transmitted to the 5-speed transmission by a single plate dry disc clutch. From the transmission, power is transmitted to the differential drive by propeller shafts.

The cargo body is made of wood. The body side panels fold down. It can be fitted with bows and tarpaulin.

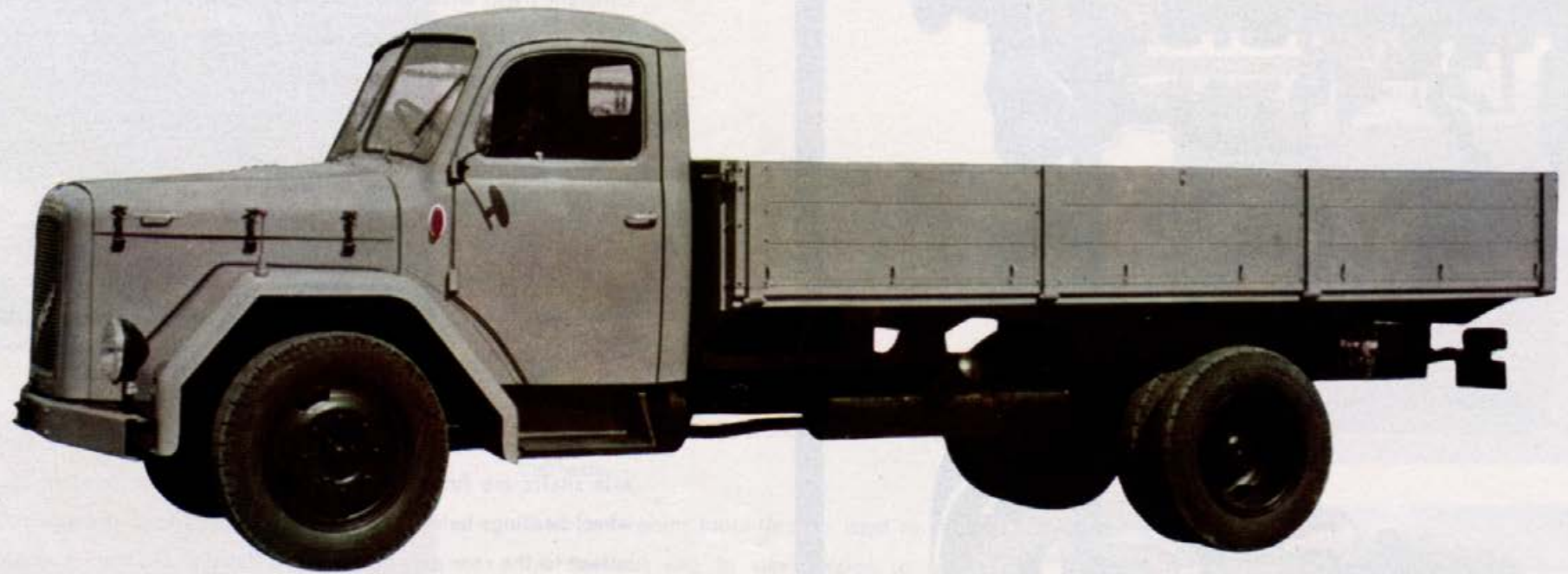
The vehicle is fitted with tool kit and spare wheel.

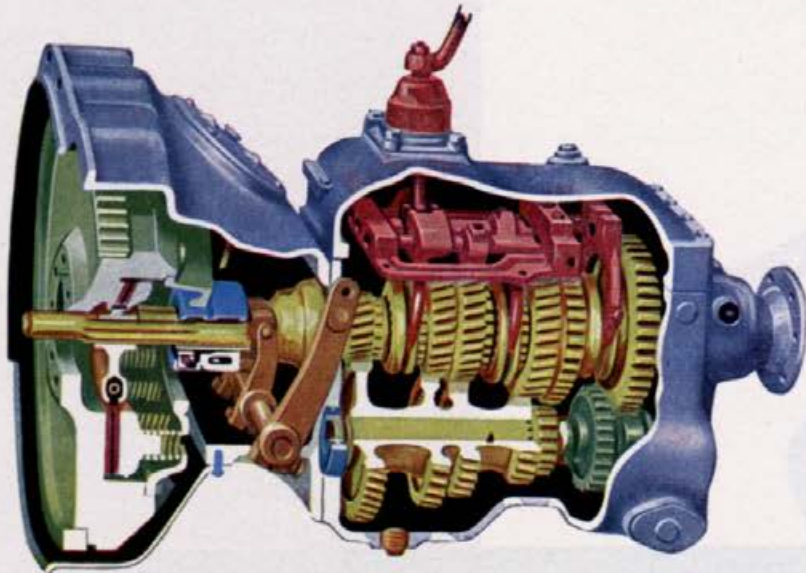


CHASSIS

Two sidemembers and seven crossmembers, made of pressed steel sheet, are joint by rivets to the chassis frame. The chassis frame is a rigid structure, but flexible enough to withstand the most difficult operation conditions. A riveted chassis frame has an advantage over a welded one for, in the case that a joint gets loose, the driver, himself, can easily remove the failure by replacing the riveted joint with a bolted one, which is not possible if welded joints were affected. On the outer side of the chassis frame, spring brackets are mounted, thus ensuring, with its position, an excellent stability of the truck on road and in bends. The engine is supported on the chassis frame by rubber pads which prevent the transfer of vibrations to the chassis frame. With its extreme position in the front part of the chassis frame it clears the rest of the chassis frame for the construction and the useful load.

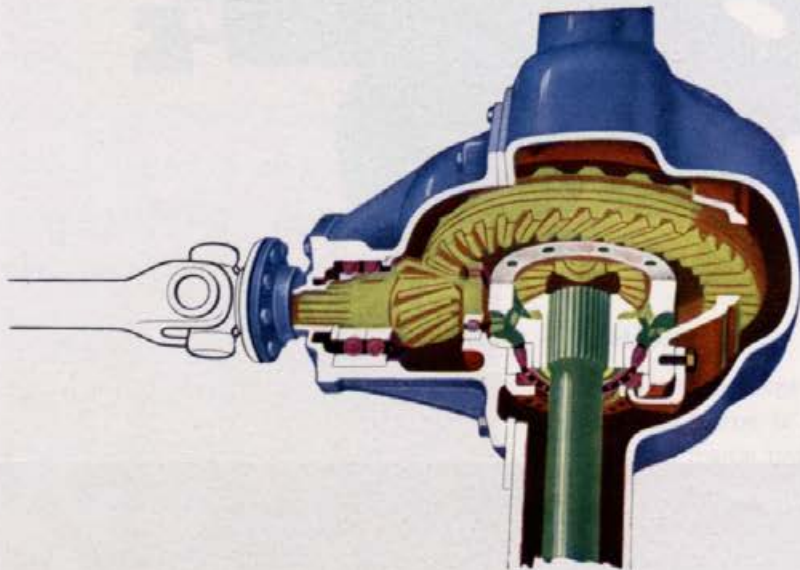
TAM 4000





TRANSMISSION

The transmission is built as a 5-speed unit. Intermediate gear ratios are so chosen as to overlap widely, thus reducing the necessity of gear changing to the minimum. The transmission gear ratios cover a gradability of 2 up to 33 percent and ground speeds of 4.5 up to 75 kmph. All gears are constant mesh with 2nd to 5th speed gears with helical and ground teeth and first and reverse speed gears with spur teeth, thus ensuring a smooth and noiseless operation. Gears are running on rollers which minimize the gear wear and are engaged or disengaged by means of sliding pawl clutch rings which facilitate the speed control.



REAR AXLE

The axle housing is of Banjo type and made of pressed steel sheet. Rear axle shafts are fullfloating and are subjected to torsional loads only, the wheel bearings being mounted on the outside of the axle tubes which are bolted to the rear axle housing end flanges, and the inner ends of the axle shafts fit into the splined differential gear within the differential carrier, the axle shafts being connected to the driving wheel hubs by floating driving dogs. The drive from propeller shaft to the rear axle shaft is effected by means of a pair spiral bevel, Gleason system, gears, giving a reduction ratio of 5.375 to 1.



CAB

The cab is built in accordance with modern methods.

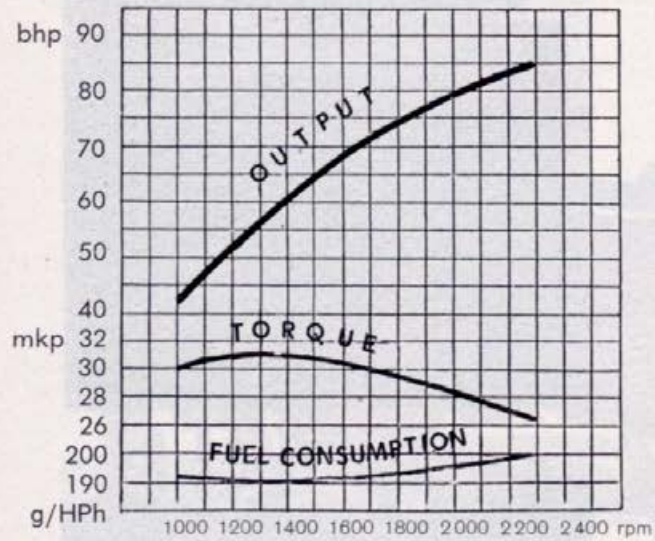
The »three point mounting« is used to attach the spacious cab in steel design to frame. Mounting is flexible for, the cab is on insulating spacers which reduce shocks and vibrations. It will seat three peoples on comfortable seats.

The inner surface of the cab is coated with an antinoise compound, which reduces the noise inside the cab to a minimum.



ENGINE

PERFORMANCES OF VEHICLE ENGINE

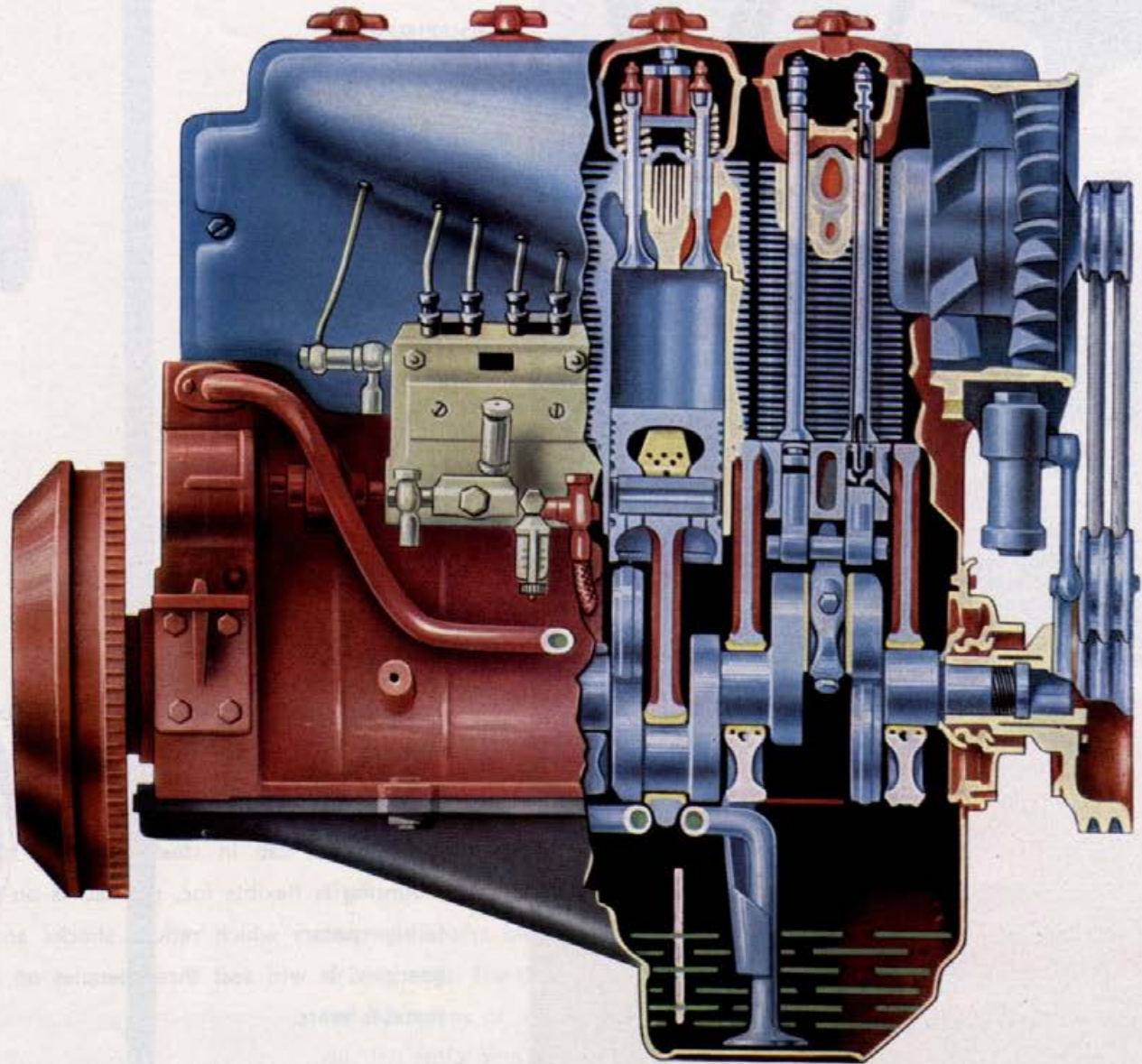
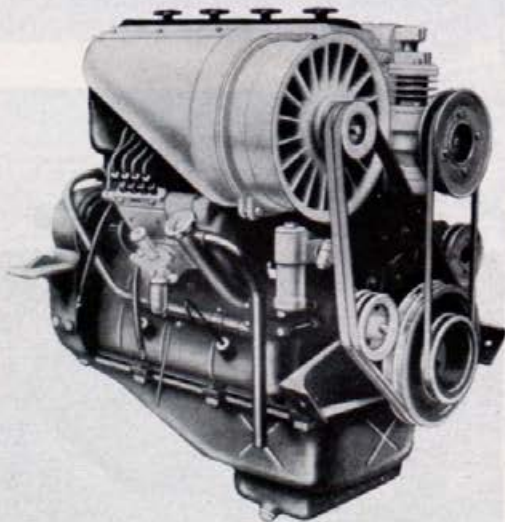


The above given values for the constant output »A« and »B« upon DIN 6270 apply to normal operating conditions such as:

1. Fuel must meet the condition $H_i = 10,000$ kcal per kg
2. The air pressure 760 mm Hg
3. The air temperature 20 degrees Centigrade
4. Relative humidity of the air $r = 60$ percent

The engine, operating beyond this conditions, loses in power approximately:

1. About 1 percent for each 2 degrees Centigrade of temperature rise
2. About 1.25 percent for each 100 meter of altitude





4 kmph

33 percent



8 kmph

16 percent



15 kmph

8 percent



25 kmph

4 percent



39 kmph

2 percent

ENGINE F 4 L 514, 4 CYLINDERS

Engine F 4 L 514 is an air-cooled diesel engine with turbulence chamber. Its output is 84 bhp at 2300 rpm and develops a max torque of 224 ft-lb (31 mkp) at 1200 rpm. The engine is cooled by air, which a special blower, through air duct, blows onto the cylinder and cylinder head cooling fins. The heat is transferred to the airflow which gets out on the L. H. side of the engine. Engine lubrication is done by means of a gear type oil pump. The overheating of lubricant oil is prevented by an oil cooler which in winter automatically switches off due to the higher viscosity of oil. The engine possesses a broad flexibility in operation and ability to run at extreme temperature ranges or 40° F (40° C) below zero up to 140° F (60° C) above zero.

TECHNICAL DATA OF THE TRUCK TAM 4000, RIGHT HAND DRIVE

Engine type: 4-stroke, air-cooled diesel with turbulence chamber

Engine model	F 4 L 514	Track, rear	63.6 in. (1615 mm)
Number of cylinders	4	Tires	7.50-20 eHD reinf.
Bore	4.33 in. (110 mm)	Top speed	50 mph (81 kmph)
Stroke	5.511 in. (140 mm)	Lowest speed	3 mph (4.8 kmph)
Piston displacement	324.7 cu in. (5322 ccm)	Gradability in 1st gear	33 percent
Output	84 bhp at 2300 rpm	Overall length	276.2 in. (7015 mm)
Max. torque	224.15 ft-lb (31 mkp) at 1200 rpm	Overall width	88.6 in. (2250 mm)
Lubrication oil cooling	through oil cooler	Overall height of unloaded vehicle	88.5 in. (2263 mm)
Transmission	5-speed forward 1 reverse	Body floor height of unloaded vehicle over soil	46.6 in. (1183 mm)
Rear axle	Banjo type reduction ratio 4.780 to 1	Cargo body size	167 × 83 × 20 in. (4250 × 2100 × 500 mm)
Leaf springs	semielliptic	Weight of vehicle ready for drive	7907 lb (3590 kp)
Steering gear	cone drive, Gemmer type	Payload	8802 lb (4000 kp)
Turning diameter	669.2 in. (17 m)	Perm. total weight	17841 lb (8100 kp)
Service brake	4-wheel hydraulic with airpressure booster mechanically operating rear wheel brakes	Fuel consumption (upon DIN kr 30)	20.1 mi per gall (14 lit. per 100 km)
Hand brake		Oil consumption	940 mi per gall (0.3 lit. per 100 km)
Wheel base	165.3 in. (4200 mm)		
Track, front	70.9 in. (1800 mm)		

BRAKES

The service brakes are airpressure hydraulically operated and act on all wheels. In case of an air-booster failure, brakes are operated only by hydraulics. The hand brake acts on rear wheels only.

STEERING GEAR

The steering gear is of Gemmer type and the applied gearing system is cone drive. The proper choice of the gear ratio and the design of the steering gear ensures a very easy steering control.



Propagandni odsek
TAM TK 5000/64
Printed by
»Pomurski tisk«
Murska Sobota

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