

flat truck, chassis with winch, three-way
tipper, rear dumper, gully emptier, mobile
motor-vehicle repair shop

PRAGA V3S



PRAGA V3S

A truck for the heaviest duty.

A truck not deterred by mud, sand, rocky terrain, steep gradients, water, snow, or ice.

A truck for any weather and climate.

A truck unyielding to fatigue.

A truck that never gets stuck — and that rescues itself should this ever happen.

These exceptional properties are due to its exceptional construction — strong, sturdy, and amply dimensioned. Moreover, PRAGA V3S is easy to handle under any circumstances.

Another positive quality of PRAGA V3S trucks is their reliability. A reliability put to the test over millions and millions of kilometres, often under unimaginable conditions. A reliability which is the result of long manufacturing and operating experience.

It is a vehicle virtually without any weak points

The available PRAGA V3S variants include the flat truck, the flat truck with a winch, the flat truck chassis with a winch, the three-way tipper, the rear dumper, and several single-purpose vehicles with various superstructures. The most popular of the latter variants are the mobile motor-vehicle repair shop and the gully emptier.







Rugged and Serviceable Body

The all-metal welded driver's cab rests on rubber silent blocks.

It comprises two seats and it is heated by a hot-air heater. Headlamps are protected by grids.

The vehicle is provided with a massive front bumper to protect it in the case of a head-on crash.

Strong sheet steel used for the body guarantees long service life and safety.

The main and the auxiliary gearbox: 8 + 2 speed gears

The main gearbox has four forward speed gears and one reverse. It is coupled with an auxiliary two-speed gearbox with one road and one off-the-road ratio. The total of 8 + 2 speed gears enables the most suitable gear to be chosen for every situation.

The individual propeller shafts connect the auxiliary gearbox with the driving axles. Universal joints and needle bearings transmit the power faillessly and with the minimum loss.

The clutch

is a dry, single-plate unit.

Three axles — all driving, one disengageable

All axles are of the rigid and driving type provided with differentials. The drive of the front axle can be disengaged. All axles have hub-mounted constant reductions. The rear axles are provided with differential gear locks.

The sliding force of the axles is transmitted to the vehicle frame by arms with special linings of their ball pins which do not require lubrication or maintenance.

The axles are designed so as to give the vehicle an exceptionally large ground clearance.

Two independent brake systems

The pedal operated pneumatic brake acts on all wheels. The mechanical hand brake acts on the brake drum on the reduction housing.

Suspension designed for extreme terrain conditions

On either side, the rear axles are suspended on semi-elliptic leaf-springs mounted on swivel pins. Together with other design elements, this original arrangement ensures a permanent grip of the wheels even on broken ground.

Electrical equipment

PRAGA V3S vehicles have two batteries of 12 volts (115 amp. hours) each, a d. c. generator, and a voltage regulator. Moreover, a receptacle for a 24-volt outer source is provided, for example for cold starting in winter.

A useful accessory — the winch for self-rescue and loading

To special order, the PRAGA V3S flat truck can be equipped with a winch, the design of which enables the rope to be wound and unwound during travelling. A system of pulleys permits the rope to be routed on to the platform and used for pulling the load along slides on the platform.

A band brake with lining, controlled by means of a hand lever on the side of the vehicle, retains the load on the incline in any desired position.

Vehicle maintenance tools

are standard equipment. They are stowed in two boxes attached under the vehicle frame platform.

Sturdy frame of special construction

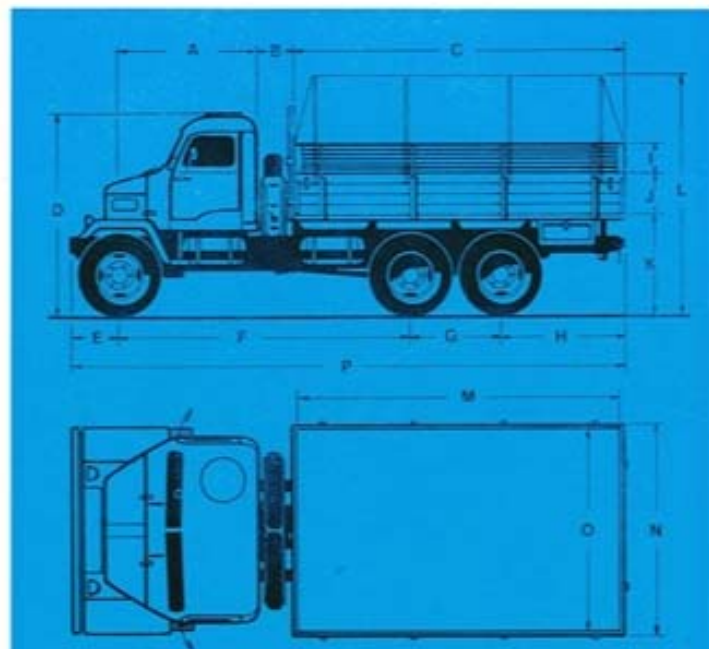
The vehicle frame consists of two longitudinal runners riveted together with seven cross members.

The resiliency of the frame is remarkable. It enables a short-time overloading without impairing the strength of the frame. This resiliency contributes also to the excellent road-holding of the vehicle on the road and off the road.

PRAGA V3S Flat Truck

The platform has a wooden floor protected by steel bands. Its sides and tail-gate are hinged. The tarpaulin can be stretched over four bows adjustable for a headroom of 1,530 mm or 1,720 mm above the loading area. When transporting bulky but light loads, the sides can be heightened by means of detachable wooden extensions.

Kerb weight	5,470 kg
Payload including crew —	
on the road	5,330 kg
off the road	3,330 kg
Gross-vehicle weight —	
off the road	8,800 kg
on the road	10,800 kg
Front axle load ratings —	
off the road	2,350 kg
on the road	2,300 kg
Rear axle load rating —	
off the road	6,450 kg
on the road	8,500 kg



PRAGA V3S Flat Truck

A	1,705 mm
B	440 mm
C	4,060 mm
D	2,498 mm
E	600 mm
F	3,580 mm
G	1,120 mm
H	1,485 mm
I	370 mm
J	500 mm
K	1,200 mm
L	2,920 mm
M	4,010 mm
N	2,320 mm
O	2,180 mm
P	~ 6,910 mm

Manufacturer: AVIA National Corporation
Praha 9 — Letňany, Czechoslovakia



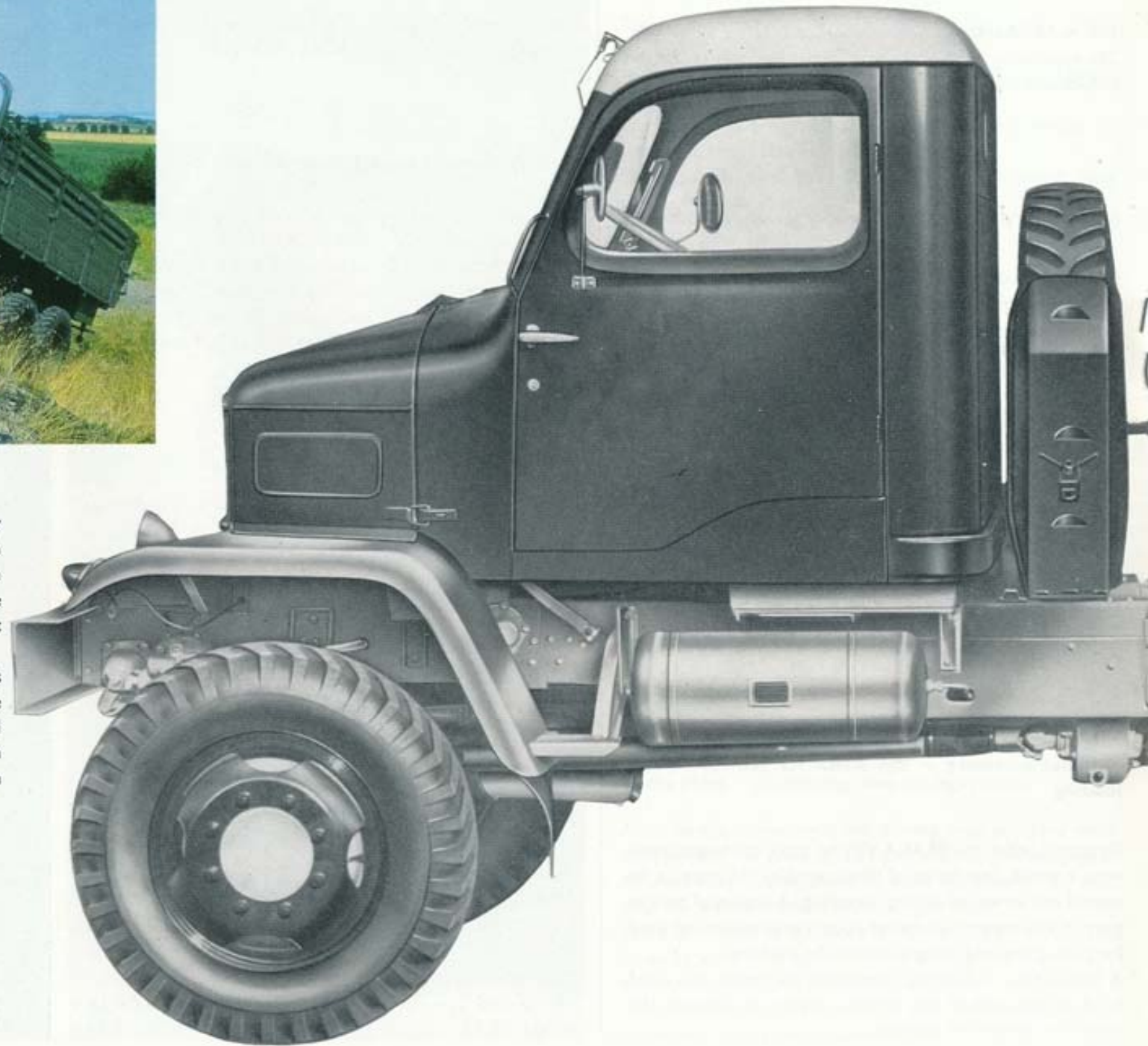
PRAGA V3S Chassis with Winch

The universal design of the chassis enables its assembly with various types of bodies, for example the platform body, the dumper body, the boxvan body, the boxvan body with generator, the gully-emptying cistern, the boxvan body containing a repair shop, and the hydraulic lifting platform.

There is the advantage of two possible power take-offs for driving various superstructure actuating units, in the first place from the side of the gearbox and, in the second place, from the rear part of the auxiliary gearbox (when not using the winch). In special instances, the drive can be arranged from the front end of the crankshaft.

The winch is standard equipment of the chassis.

Kerb weight	4,830 kg
Payload including crew — off the road	3,970 kg
on the road	5,970 kg
Gross-vehicle weight — off the road	8,800 kg
on the road	10,800 kg
Front axle load rating — off the road	2,350 kg
on the road	2,300 kg
Rear axle load rating — off the road	6,450 kg
on the road	8,500 kg
Weight of winch	130 kg



SUSPENSION

Type longitudinal, semi-elliptical leaf springs

Suspension dampers hydraulic, on front axle

BRAKES

Service brake pneumatic

Parking brake relay band brake

FUEL TANK

Filling capacity 120 litres

TOWING GEAR

Type mechanical (non-automatic) coupling

WHEELS AND TYRES

Rims 5.00 S — 20" — flat

Tyres 8.25 — 20" HD

WINCH

Type with winding drum

Drive worm and worm gear

Maximum pulling force 3,000 kg

Rope diameter/length 13.3 mm/55 m

AUXILIARY DRIVE — POWER TAKE-OFF

a) from the side of the gearbox:

maximum speed 1,150 r.p.m. at 2,100 engine r.p.m.

maximum power 50 h.p. with the vehicle moving or standing

b) from the rear part of the auxiliary gearbox:

1st-speed gear max. speed — 325 r.p.m.

2nd-speed gear max. speed — 640 r.p.m.

3rd-speed gear max. speed — 1,150 r.p.m.

4th-speed gear max. speed — 2,100 r.p.m.

continuous power 50 h.p. with the vehicle moving or standing

ELECTRICAL EQUIPMENT

Rated voltage 12 volts

RIDING CHARACTERISTICS

Peak speed 60 km/hr.

Sustained (cruising) speed 50 km/hr.

Minimum turning circle diameter 21 m

Climable gradient (normal terrain degree) 300 mm max.

Fording ability 800 mm

Fuel consumption 28 ltrs/100 km

CLUTCH

Type mechanically controlled dry, single-plate unit built-in in the engine flywheel

GEARBOX

Type mechanical gear unit

Gear ratios

1st-speed gear 1:6.19

2nd-speed gear 1:3.13

3rd-speed gear 1:1.75

4th-speed gear 1:1

Reverse gear 1:6.28

AUXILIARY (SPEED REDUCING) GEARBOX

Type mechanical

Gear ratios — road ratio 1:0.75

— off-the-road ratio 1:2.15

AXLES

Type driving, rigid

Gear ratios

"Gleason" bevel gearing 1:3.91

hub-mounted constant reduction 1:2.141

STEERING

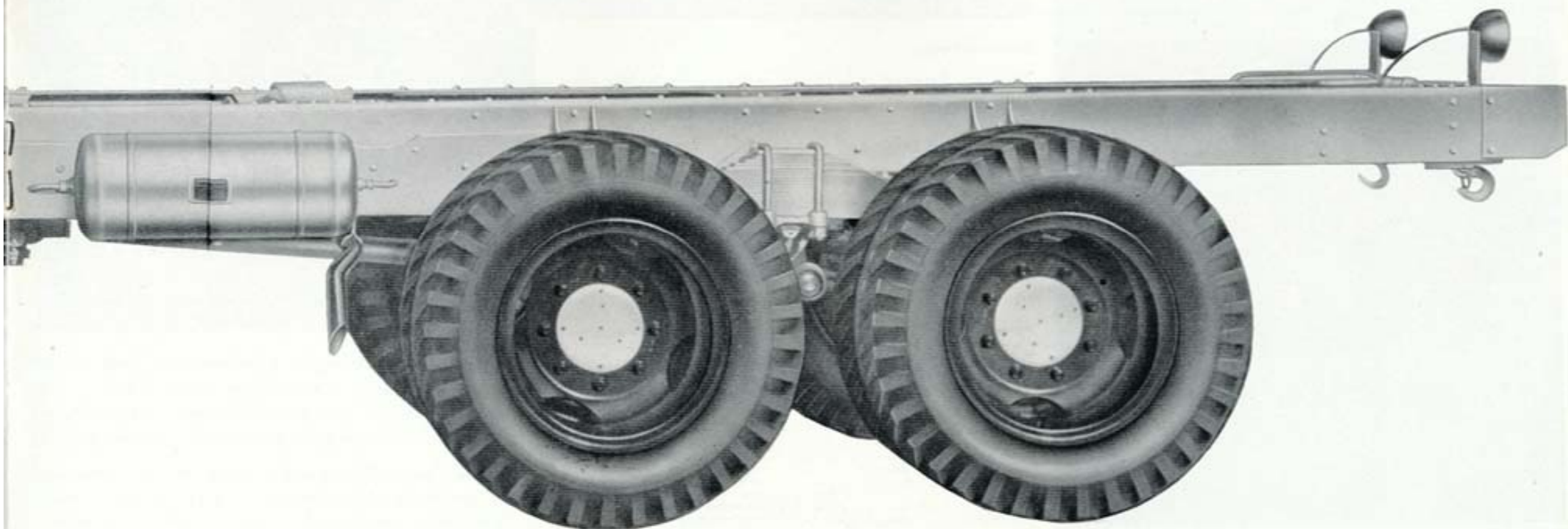
Type direct, worm and roller steering

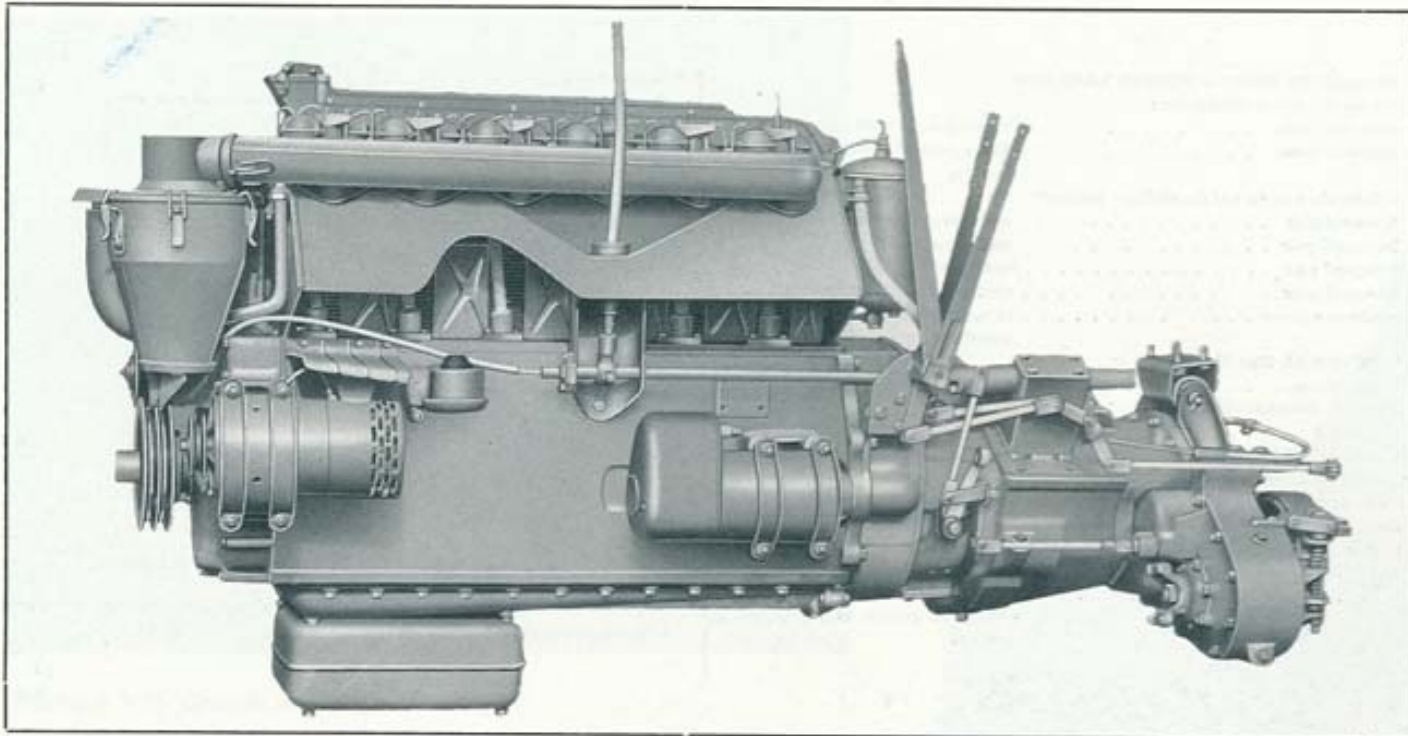
Ratio 1:25

FRAME

Type ladder, riveted together

The manufacturer reserves the right to modify or change the vehicles or their parts without previous notice.





Spare wheels

They are fastened in a special carrier with folding arms behind the driver's cab.

T 912 Diesel Engine

economical and tireless

The air cooling system of the engine has proved well in tropical as well as polar regions. The fuel injection is direct. A special injector (excessive fuel device) controlled by the driver is provided to facilitate operation at extremely low temperatures.

Engine type	direct-injection, compression ignition four-stroke
Number of cylinders	6
Swept volume	7,412 c.c.
Bore/stroke	110 mm/130 mm
Cylinder arrangement	in line
Compression ratio	1:16.4
Valve operation	OHV
Maximum power output	72 kW (98 h. p.) at 2,100 r.p.m.
Continuous power	44.2 kW (60 h. p.) at 1,600 r.p.m.
Maximum speed	2,100 r.p.m.
Maximum torque at 1,400 r.p.m.	353 Nm (36 kgm)
Cooling system	air cooling by means of an axial-flow fan
Lubrication	force-feed circulatory system
Injection order	1-5-3-6-2-4



PRAGA V3S

PRAGA V3S — PAOM-G Mobile Motor-vehicle Repair Shop

With its ample equipment and numerous tools, the PAOM-G mobile repair shop is well able to replace a well equipped repair shop in remote places.

In rainy weather, the shop area can be increased by using a canvas awning attached to the side of the vehicle.

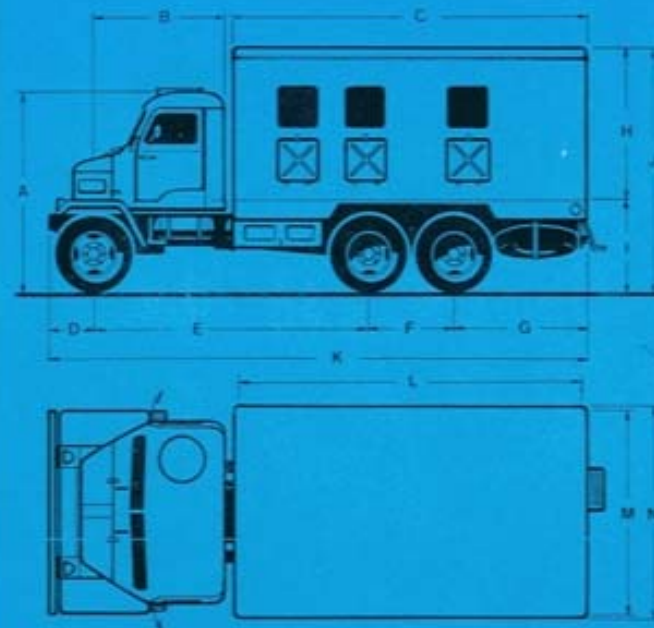
Repair shop equipment: a. c. generator — universal lathe — bench drill — welding set — gas-welding set — battery charger — portable nozzle tester — electric bench grinding machine — hoist with a lifting capacity of 1 ton

Jobs which can be done in the mobile repair shop: motor mechanic's jobs — assembly and dismantling — locksmith's and fitter's jobs — turner's jobs — welder's

jobs — tinsmith's jobs — coach builder's jobs — motor vehicle maintenance jobs and inspections — minor overhauls (replacement of faulty parts)

Gross-vehicle weight 9,800 kg

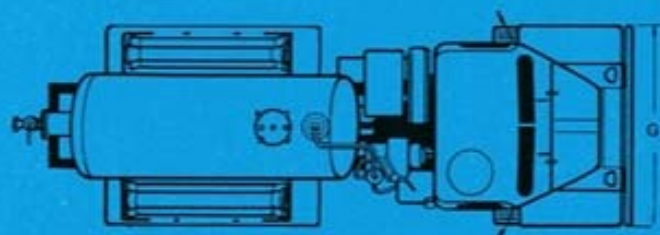
Maximum permissible road speed 50 km/hr.



PRAGA V3S PAOM-G Mobile Motor-vehicle Repair Shop

A	2,498 mm
B	1,705 mm
C	4,660 mm
D	600 mm
E	3,580 mm
F	1,120 mm
G	1,760 mm
H	1,850 mm
I	1,110 mm
J	~ 3,020 mm
K	~ 7,060 mm
L	~ 4,550 mm
M	~ 2,185 mm
N	~ 2,320 mm

Manufacturer: AVIA National Corporation
Ivančice, Czechoslovakia



PRAGA V3S
FEK - V3S Gully Emptier

A	6,900 mm
B	600 mm
C	4,140 mm
D	2,160 mm
E	1,120 mm
F	2,800 mm
G	2,300 mm
H	1,000 mm

Manufacturer: KAROSA National Corporation
Brno - Královo Pole
Czechoslovakia



PRAGA V3S

The gully emptier that gets everywhere
FEK V3S

Special cistern truck intended for pumping and removal of heavily contaminated industrial and farm sludges, and excrements. The single-purpose superstructure is mounted on the PRAGA V3S chassis.

Charging

The cistern is filled by suction. The required underpressure is created in the cistern by means of a rotary vacuum compressor. The charging and discharging gear is installed behind the driver's cab. The pipeline connecting the vacuum compressor with the cistern incorporates a multiway control valve and an air cleaner.

Discharging

The cistern can be drained by free flow or emptied quickly by the pressure created again by the vacuum compressor.

The latter method is also used when spraying the cistern contents over a field or an indicated piece of land.

Cistern

The filling capacity of the cistern is 3.5 cubic metres. If the gully emptier is required to travel over a rough terrain, the filled-in volume must be reduced adequately.

MAIN TECHNICAL DATA

Kerb weight	6,180 kg
Payload on the road (3.5 m ³)	approx. 4,500 kg
Gross-vehicle weight	10,700 kg
Permissible axle loads — front	2,100 kg
— both rear	8,600 kg
Approach angle — front	72°
— rear	32°
Maximum vacuum	9 m of water column
Cistern filling time	3.4 minutes
Discharge time (free flow)	2.5 minutes
Discharge time (pressure)	2 minutes
Maximum travelling speed during pressure spraying	13.5 km/hr.
Minimum travelling speed during pressure spraying	2.1 km/hr.
Equipment: 10 suction hoses dia. 110 mm x 2.5 m, a spraying nozzle, a suction hose reducer, a shovel and a mattock.	



PRAGA V3S

The serviceable and reliable helper on building sites
PRAGA V3S Dumper

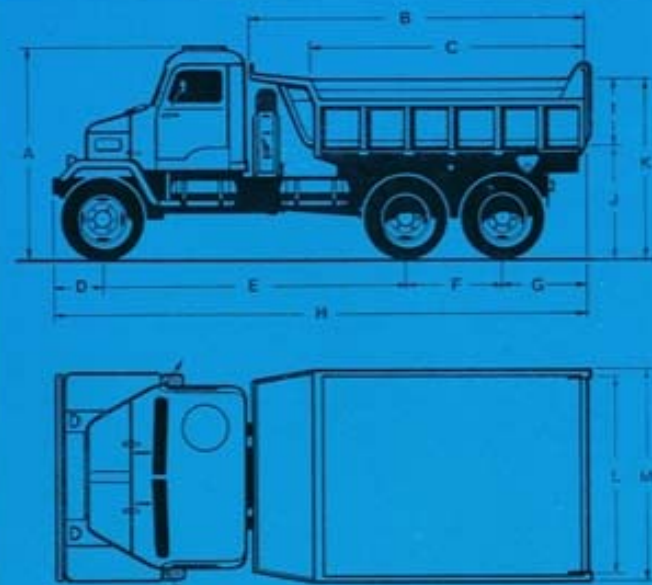
The PRAGA V3S economical rear dumper has been designed for a quick transport and dumping of earth and loose materials. The all-metal welded body rests on a reinforced frame which preserves the necessary resiliency despite its sturdy construction. The capacity of the body can be increased by attaching wooden extension panels. The body is hoisted by a telescopic, hydraulic, four-piston ram with a two-arm lever. The gear pump of the dumping gear is bolted to the vehicle gearbox. A pressure-relief valve

incorporated into the pressure oil line protects the dumping gear against damage at a sudden rise of the pressure.

The retaining pawl of the hinged tail-gate locks automatically so that no other worker is required to operate the dumper beside its driver.

The shortness of the working cycle contributes to the operating economy of the dumper.

Filling capacity	2.6 to 4.4 m ³
Kerb weight	5,650 kg
Payload	4,500 kg
Maximum permissible GVW rating including the crew	10,500 kg
Maximum dumping angle	60°
Time required for attaining the maximum dumping angle	6 to 10 seconds



PRAGA V3S — 4.5 Dumper

A	2,420 mm
B	3,925 mm
C	~ 3,240 mm
D	600 mm
E	3,580 mm
F	1,120 mm
G	~ 1,065 mm
H	~ 6,365 mm
I	734 mm
J	~ 1,356 mm
K	~ 2,090 mm
L	2,120 mm
M	~ 2,240 mm

Manufacturer: AVIA National Corporation
Brno, Horní Heršpice Works
Czechoslovakia



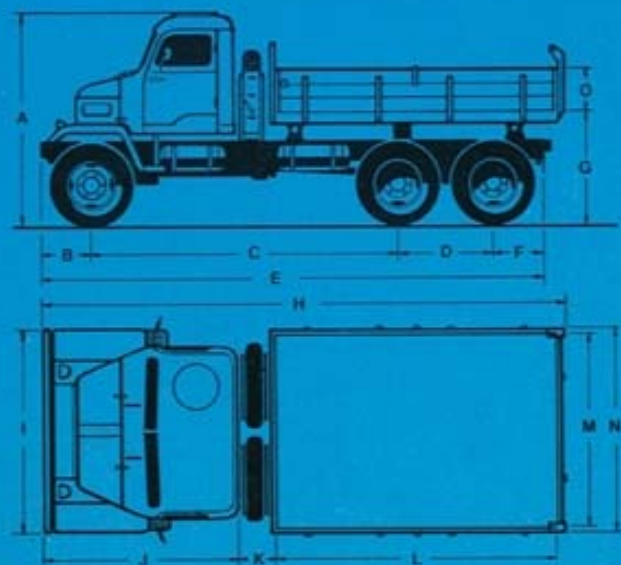
PRAGA V3S

For building sites and excavations in difficult terrain
PRAGA V3S Three-way Tipper

This tipper has been designed for heavy duty in extreme terrain conditions. Its excellent manoeuvrability makes it ideal for quick transport and dumping of various materials. The basic capacity of the wooden platform body lined with steel sheet is 2.8 cubic metres but it can be increased to 4.4 cubic metres by means of side extension panels when

transporting light-weight and bulky materials. Thus the usability of the tipper is considerably widened. The platform body is held in position by two steel ropes. The driver controls the tipping gear from his cab and no other person is required to operate the vehicle.

Platform body filling capacity	2.8 to 4.4 m ³
Kerb weight	5,575 kg
Payload	4,500 kg
Maximum permissible GVW rating including the crew	10,500 kg



PRAGA V3S Three-way Tipper (4.5 t)

A	2,420 mm
B	600 mm
C	3,580 mm
D	1,120 mm
E	5,840 mm
F	540 mm
G	1,350 mm
H	6,435 mm
I	2,025 mm
J	2,305 mm
K	700 mm
L	3,248 mm
M	2,192 mm
N	2,354 mm
O	~ 620 mm

Manufacturer: Brandýské strojírny
a slévárny, n. p.
(Brandýs Engineering Works and
Foundries, National Corporation)
Brandýs nad Labem
Czechoslovakia

Manufacturer:



Praha — Letňany
Czechoslovakia

Exporter:

MOTOKOV

Praha — Czechoslovakia