

# M·A·N DIESEL

AMERICAN M·A·N CORPORATION  
149 BROADWAY  
NEW YORK 6, N. Y.



## 120 H.P. MODEL 620 L1

for high-speed service without trailer or normal service with trailer  
up to 25 tons combined gross weight,  
equipped with the novel noiseless M-engine:

six-cylinder, four-stroke M·A·N Diesel engine with direct injection on the new M-principle, equipped with a most efficient filter system;

three fuel filters, main and by-pass lube oil filters, oil-bath type air cleaner with fresh air intake at radiator.

|                               |                             |  |
|-------------------------------|-----------------------------|--|
|                               | Type . . . . .              | D 1246 M 4                               |
| Bore/Stroke . . . . .         | 112/140 mm<br>(4.41"/5.51") | Rating . . . . . 120 H.P. at 2000 r.p.m. |
| Piston displacement . . . . . | 827½ cu.cm. (505 cu.in.)    | Torque . . . . . 46 mky (333 ft. lb.)    |

### CHASSIS:

Chassis: single-die dry shell, type LA 80

Driveline: live-axle dry shell gearbox, type ZF AK 522 with synchro

Rear Axle: H.A.H. design, shock and tire valves separate, final drive with worm-and-planet reduction

Front Axle: normal type

Steering: ZF steering assembly (steer gear, left-hand drive)

Rear Axle: air brake acting on all four wheels, controlled by an automatic handle type brake valve

Front Axle: acting on the rear wheels

Wheels: steel wheels with rims 7.5 - 20

Tires: 6.00 - 20 STD or 6.00 - 20 steel cord

Fuel tank: 1 tank, 120 liter capacity

### AXLE LOADS AND WEIGHTS

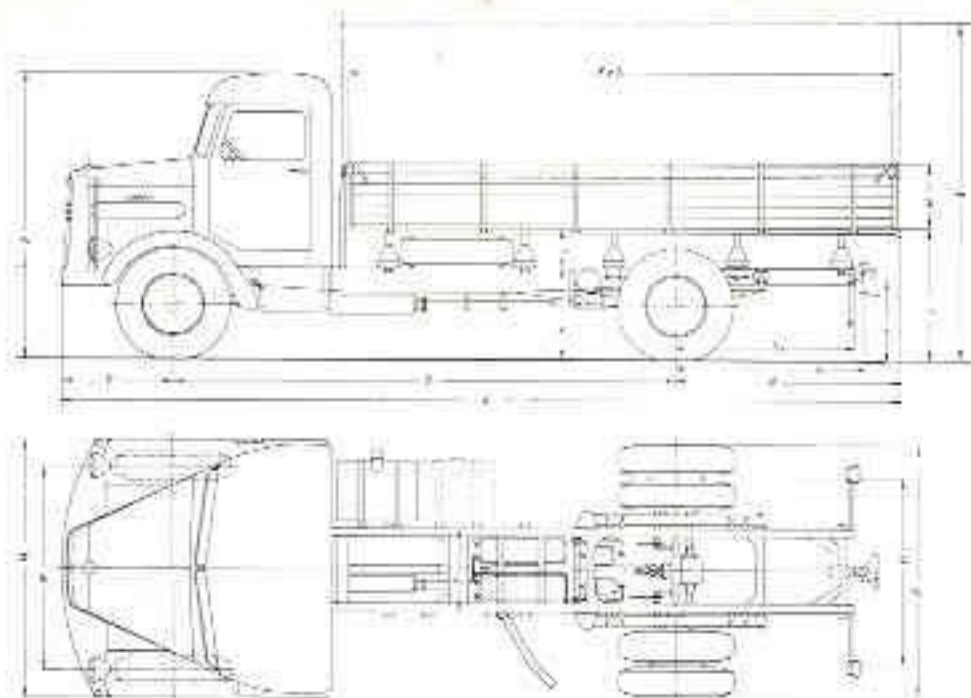
(on standard wheels 400 mm)

|   | with tires<br>5.00 - 20 STD | with tires<br>5.00 - 20<br>steel cord | with tires<br>6.00 - 20 STD | with tires<br>6.00 - 20<br>steel cord |
|---|-----------------------------|---------------------------------------|-----------------------------|---------------------------------------|
| permissible gross vehicle weight  | 4700 kg 10300 lb            | 12700 kg 28000 lb                     | 4700 kg 10300 lb            | 12700 kg 28000 lb                     |
| permissible front axle load   | 3400 kg 7500 lb             | 4000 kg 8800 lb                       | 3400 kg 7500 lb             | 4000 kg 8800 lb                       |
| permissible rear axle load  | 4800 kg 10600 lb            | 8700 kg 19000 lb                      | 4800 kg 10600 lb            | 8700 kg 19000 lb                      |
| chassis weight  | 1650 kg 3650 lb             | 2220 kg 4900 lb                       | 1650 kg 3650 lb             | 2220 kg 4900 lb                       |
| permissible gross trailer weight with rear axle reduction 7.25:1  | 8000 kg 17700 lb            | 9000 kg 19900 lb                      | 8000 kg 17700 lb            | 9000 kg 19900 lb                      |
| permissible gross trailer weight with rear axle reduction 5.25:1  | 12000 kg 26500 lb           | 13300 kg 29300 lb                     | 12000 kg 26500 lb           | 13300 kg 29300 lb                     |
| permissible gross truck and trailer weight with rear axle reduction 7.25:1  | 10200 kg 22500 lb           | 20700 kg 45800 lb                     | 10200 kg 22500 lb           | 20700 kg 45800 lb                     |
| chassis weight without driver's cab option  | 3670 kg 8100 lb             | 4100 kg 9000 lb                       | 3670 kg 8100 lb             | 4100 kg 9000 lb                       |
| chassis weight with driver's cab option   | 4170 kg 9200 lb             | 4600 kg 10100 lb                      | 4170 kg 9200 lb             | 4600 kg 10100 lb                      |
| net service weight, including driver's cab and platform (including spare tire and tyre, driver, tools, and fuel option) | 4700 kg 10300 lb            | 5200 kg 11500 lb                      | 4700 kg 10300 lb            | 5200 kg 11500 lb                      |

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### DRIVER'S CAB:

All-steel construction, closed design, 2 doors with crank-operated windows, rear-view window, windows adjustable for ventilation, 2 electric wipers, side mirror, rearview mirror, direction indicators, electric horn. First-class interior finish, sun visor, glove box, tailing lamp, reading lamp, finish-fitted upholstery, adjustable driver's seat. Instrument board with tachometer, oil pressure gauge, cooling water heat gauge with control lamp, brake pressure indicator with control lamp, battery control lamp, over-speed alarm device, control lamps for traffic indicators, starter button.

### STANDARD EQUIPMENT

Dynamo, 160 W, 12 volts.  
 Starter, 4 H.P., 24 volts.  
 2 batteries, 12 volts, each 105 amp-hr.  
 Single-stage air compressor.  
 Headlights with dimming device and parking light, tail and stop lamps, handlamp with socket, tyre inflator set and hose, towing hooks front and rear, trailer coupling optional at extra price, hydraulic jack, tool kit.

### DIMENSIONS

Stated for tyres 9.00-20 (STD); for tyres 10.00-20 (steer-cord the data are given in brackets)

| Symbol | Description   | for ventilated radiators and special bores |      | for tipper |      | for trucks with standard body |      | for trucks with special purpose bodies |      |
|--------|---|--|------|------------|------|-------------------------------|------|--|------|
|        |   | mm   | in   | mm         | in   | mm                            | in   | mm                                     | in   |
| A      | Wheelbase   | 3200                                       | 130  | 4100       | 165  | 4000                          | 157  | 4900                                   | 200  |
| B      | length overall  | 5015                                       | 210  | 4605       | 180  | 7580                          | 299  | 5645                                   | 236  |
| C      | length of body overhang, front  | 1045                                       | 41   | 1045       | 41   | 1045                          | 41   | 1045                                   | 41   |
| D      | length of body overhang, rear   | 950  | 37.5 | 400        | 15.7 | 925                           | 36.5 | 2800                                   | 110  |
| E      | length of chassis overhang, rear  | 350  | 13.8 | 1015       | 40   | 1510                          | 59.5 | 1910                                   | 75   |
| F      | height over cab, unloaded, about  | 2250                                       | 88.5 | 2720       | 107  | 2720                          | 107  | 2720                                   | 107  |
| G      | length of platform  | 3260                                       | 128  | 2740       | 108  | 2740                          | 108  | 3740                                   | 147  |
| H      | width of platform   | —  | —    | 4000       | 158  | 4000                          | 157  | 4000                                   | 157  |
| I      | height of side boards   | —  | —    | 2240       | 88   | 2240                          | 88   | 2240                                   | 88   |
| J      | height of platform, loaded  | —  | —    | 420        | 16   | 500                           | 20   | 500                                    | 20   |
| K      | chassis height, loaded, about   | 1600                                       | 63   | 1600       | 63   | 1600                          | 63   | 1600                                   | 63   |
| L      | height of platform above chassis top (4x4)                              | —  | —    | 380        | 15   | 360                           | 14   | 360                                    | 14   |
| M      | width, overall  | 2400                                       | 95   | 2400       | 95   | 2400                          | 95   | 2400                                   | 95   |
| N      | track width, front  | 1680                                       | 66   | 1680       | 66   | 1680                          | 66   | 1680                                   | 66   |
| O      | track width, rear   | 1900                                       | 75   | 1900       | 75   | 1900                          | 75   | 1900                                   | 75   |
| P      | width over rear tyres   | 1700                                       | 67   | 1700       | 67   | 1700                          | 67   | 1700                                   | 67   |
| Q      | distance from centre trailer coupling pin to centre rear axle           | 1720                                       | 68   | 1720       | 68   | 1708                          | 67   | 1708                                   | 67   |
| R      | height above ground level of centre trailer coupling pin, loaded, about | 1274                                       | 50.5 | 1274       | 50.5 | 1274                          | 50.5 | 1274                                   | 50.5 |
| S      | height of standard bows above ground, unloaded, about                   | 1000                                       | 39.5 | 1000       | 39.5 | 1000                          | 39.5 | 1000                                   | 39.5 |
| T      | width of chassis frame  | 760  | 30   | 760        | 30   | 760                           | 30   | 760                                    | 30   |
| U      | minimum turning circle  | 13.2 m                                     | 43.5 | 14.4 m     | 47.5 | 18.0 m                        | 59   | 19.0 m                                 | 62.5 |
| V      | ground clearance front, about   | 465  | 18.5 | 465        | 18.5 | 460                           | 18.5 | 465                                    | 18.5 |
| W      | ground clearance rear, about  | 485  | 19   | 485        | 19   | 495                           | 19.5 | 485                                    | 19   |
| X      | ground clearance rear, about  | 310  | 12.5 | 310        | 12.5 | 315                           | 12.5 | 315                                    | 12.5 |
| Y      | without trailer coupling  | 330  | 13   | 330        | 13   | 330                           | 13   | 330                                    | 13   |

### ROAD SPEEDS, REDUCTION RATIOS, AND CLIMBING ABILITY:

Allowance is made in the stated climbing ability for the efficiency of the gearbox.

| Truck weight                     | with tyres 9.00-20 (STD) |              |             | with tyres 10.00-20 (steer-cord) |          |                                  |             |              |      |      |      |
|----------------------------------|--------------------------|--------------|-------------|----------------------------------|----------|----------------------------------|-------------|--------------|------|------|------|
|                                  | kg (lbs)                 | 10200(22500) | 8000(17500) | 12000(26500)                     | kg (lbs) | 12700(28000)                     | 8000(17500) | 12000(26500) |      |      |      |
| Trailer weight                   | kg (lbs)                 |              |             |                                  | kg (lbs) |                                  |             |              |      |      |      |
| Truck and trailer weight         | kg (lbs)                 |              |             |                                  | kg (lbs) |                                  |             |              |      |      |      |
| Speed km/h (miles/hr) at maximum | R.P.M.                   | Torque       | %           | %                                | %        | Speed km/h (miles/hr) at maximum | R.P.M.      | Torque       | %    | %    | %    |
| Rear axle reduction              |                          |              |             |                                  |          |                                  |             |              |      |      |      |
| 1.36:1                           |                          |              |             |                                  |          |                                  |             |              |      |      |      |
| 1st speed                        | 5.58:1                   | 8.5 (11.3)   | 5.2 (7.0)   | 32.7                             | 16.9     | —                                | 9.7 (13.0)  | 6.0 (8.0)    | 23.8 | 13.6 | —    |
| 2nd speed                        | 2.93:1                   | 17.8 (24.0)  | 11.0 (14.8) | 18.2                             | 7.8      | —                                | 22.0 (29.5) | 14.0 (18.5)  | 31.3 | 8.0  | —    |
| 3rd speed                        | 1.66:1                   | 31.4 (41.5)  | 19.5 (26.0) | 7.8                              | 3.5      | —                                | 38.0 (50.5) | 24.0 (31.5)  | 8.2  | 3.5  | —    |
| 4th speed                        | 1.00:1                   | 38.0 (50.5)  | 23.5 (30.5) | 4.3                              | 1.8      | —                                | 44.0 (58.5) | 28.0 (36.5)  | 2.8  | 0.9  | —    |
| 5th speed                        | 0.64:1                   | 48.5 (64.5)  | 31.0 (41.5) | 1.8                              | 0.7      | —                                | 58.0 (77.0) | 36.0 (47.5)  | 0.9  | —    | —    |
| reverse speed                    | 5.12:1                   | 10.0 (13.5)  | 6.4 (8.5)   | 27.3                             | 14.4     | —                                | 10.0 (13.5) | 6.0 (8.0)    | 20.8 | 19.0 | —    |
| Rear axle reduction              |                          |              |             |                                  |          |                                  |             |              |      |      |      |
| 0.82:1                           |                          |              |             |                                  |          |                                  |             |              |      |      |      |
| 1st speed                        | 5.58:1                   | 7.5 (10.0)   | 4.8 (6.5)   | 36.0                             | 21.0     | 15.5                             | 7.7 (10.0)  | 4.7 (6.0)    | 22.7 | 17.4 | 14.3 |
| 2nd speed                        | 2.93:1                   | 14.2 (18.5)  | 8.8 (11.5)  | 19.0                             | 10.1     | 7.9                              | 14.5 (18.5) | 9.0 (11.5)   | 14.0 | 8.3  | 6.6  |
| 3rd speed                        | 1.66:1                   | 25.0 (32.5)  | 15.0 (19.5) | 10.2                             | 4.8      | 3.6                              | 28.0 (36.5) | 18.0 (23.5)  | 6.4  | 3.8  | 2.9  |
| 4th speed                        | 1.00:1                   | 31.5 (41.5)  | 19.0 (25.0) | 5.8                              | 2.4      | 1.6                              | 38.0 (50.5) | 24.0 (31.5)  | 4.1  | 1.7  | 1.1  |
| 5th speed                        | 0.64:1                   | 40.0 (53.0)  | 24.0 (31.5) | 3.7                              | 0.6      | 0.2                              | 47.0 (62.0) | 29.0 (38.5)  | 1.8  | 0.2  | —    |
| reverse speed                    | 5.12:1                   | 8.1 (10.5)   | 5.0 (6.5)   | 34.7                             | 18.6     | 14.0                             | 8.1 (10.5)  | 5.1 (6.5)    | 25.4 | 15.4 | 12.0 |

\* applicable only to truck without trailer

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