

Format for Commercial Literature Specifications – Off-Road Work Machines – SAE J1233

SAE Recommended Practice
Approved June 1978

THIS IS A PREPRINT WHICH IS
SUBJECT TO REVISIONS AND
CORRECTIONS. THE FINAL
VERSION WILL APPEAR IN THE
1979 EDITION OF THE SAE
HANDBOOK.

Society of Automotive Engineers, Inc.
400 COMMONWEALTH DRIVE, WARRENDALE, PA. 15096



PREPRINT

S. A. E.
LIBRARY

SAENORM.COM : Click to view the full PDF of J1233-197806

SAENORM.COM : Click to view the full PDF of J1233_197806

**FORMAT FOR COMMERCIAL
LITERATURE SPECIFICATIONS—
OFF-ROAD WORK MACHINES—SAE J1233**

SAE Recommended Practice

Report of Off-Road Machinery Technical Committee approved June 1978. Rationale statement available.

1. Purpose—This SAE Recommended Practice provides a uniform method for presenting commercial literature specifications.

2. Scope—This practice applies to certain off-road self-propelled work machines referenced in SAE J1116. It applies to most machines defined in SAE J1057a.

3. General—Since this practice applies to a wide variety of machine configurations, it cannot be used as an exact procedure; instead, it provides only general guidelines. This practice applies to the machine equipped with the standard working tool. It does not apply to optional attachments.

4. Commercial Literature Specifications

4.1 General

4.1.1 Machine Model Designation—Model name and number and machine description as required to qualify weight (mass), dimensions, and performance as reported.

4.2 Power Type—(piston or gas turbine engine, electric motor, etc.).

4.2.1 Manufacturer and model number.

4.2.2 Piston-type engine.

4.2.2.1 Ignition (diesel or spark).

4.2.2.2 Cycle (2- or 4-stroke).

4.2.2.3 Aspiration (natural, mechanically supercharged, turbocharged).

4.2.2.4 Number of cylinders.

4.2.2.5 Bore, mm (in).

4.2.2.6 Stroke, mm (in).

4.2.2.7 Displacement, L (in³).

4.2.2.8 Net power at stated rpm—fully equipped engine operating and corrected per SAE J816.

4.2.2.9 Type of fuel used.

4.2.2.10 Cooling system (water or air cooled).

4.2.2.11 Electrical system, nominal voltage and nominal alternator, or generator capacity, amperes.

4.3 Power Train

4.3.1 Transmission (manual shift, power shift, hydrostatic, electric, etc.) describe type.

4.3.2 Clutch or torque converter—describe type.

4.3.3 Reversing unit—describe type.

4.3.4 Differential—describe type.

4.3.5 Driving axle(s)—describe type.

4.3.6 Final drives—describe type.

4.4 Steering

4.4.1 Type (front wheel, articulated frame, clutch and brake, planetary, etc.).

4.4.2 Power source (manual, hydraulic boost, etc.)—describe type.

4.4.3 Emergency steer method—describe type.

4.5 Hydraulic System

4.5.1 Function—name function of system.

4.5.2 Control valve (open center, closed center, etc.)—describe type.

4.5.3 Pump type and capacity. State capacity in litres per minute (U.S. gallons per minute) at rated engine rpm and stated delivery pressure in kilopascals (pounds per square inch).

4.5.4 System relief valve or rated pressure—kilopascals (pounds per square inch) at specified flow in litres per minute (U.S. gallons per minute).

4.5.5 Hydraulic motor type and capacity. State output in kilowatts (horsepower) at rated pressure and speed.

4.5.6 Hydraulic cylinders

4.5.6.1 Function (lift steering, etc.).

4.5.6.2 Type (single acting, double acting).

4.5.6.3 Bore and stroke, mm (in).

4.5.6.4 Rod diameter, mm (in).

4.6 Braking System

4.6.1 Service brakes—describe type brakes and actuating system.

4.6.2 Parking brake—describe type.

4.6.3 Retarding brake—describe type and actuating system.

4.6.4 Emergency system—describe type.

4.7 Suspension Systems

4.7.1 Individual wheel or axle.

4.7.2 Axle or frame oscillation, degrees total.

4.7.3 Number of track rollers.

4.7.4 Number of track carrier rollers.

4.8 System Refill Fluid Capacities

4.8.1 Cooling system—specify in litres (U.S. quarts).

4.8.2 Fuel tank—specify in litres (U.S. gallons).

4.8.3 Engine lubricating oil—specify in litres (U.S. quarts).

4.8.4 Transmission—specify in litres (U.S. quarts).

4.8.5 Differential or drive axle system—specify in litres (U.S. quarts).

4.8.6 Final drives—specify in litres (U.S. quarts).

4.8.7 Work tool hydraulic system—specify in litres (U.S. gallons).

4.9 General Machine Dimensions

4.9.1 Width, mm (in)¹.

4.9.2 Length, mm (in)¹.

4.9.3 Height, mm (in)¹.

4.9.4 Length of track on ground or wheelbase, mm (in)¹.

4.9.5 Track gauge or tread, mm (in).

4.9.6 Ground clearance, mm (in).

4.9.7 Volume capacity (of bucket, scraper bowl, dumper body, etc.)—m³ (yd³) per SAE J742b and J741b.

4.10 Machine Weights (Masses)²

4.10.1 Operating weight without payload, kg (lb).

4.10.2 Operating weight with rated payload (dumpers, tractor-scrappers), kg (lb).

4.10.3 Axle weight distribution empty and loaded (dumpers, tractor-scrappers), kg (lb).

4.11 General Machine Performance

4.11.1 Maximum travel speeds, km/h (mph).

4.11.2 Rimpull, Newtons (pounds)—dumpers, tractor-scrappers, skidders, wheel tractors (not loaders).

4.11.3 Drawbar pull (crawler tractors)—Newtons (pounds).

4.11.4 Turning radius or machine clearance circle, m (ft).

¹Use of metres (feet) optional on long dimensions.

²Use of term weight in this practice means mass. See paragraph 6.1 in SAE J916b.