

**FIVE EASY STEPS TO SUCCESSFUL SPECIFICATION WRITING**  
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Today's Public Official is often called on to purchase a wide variety of goods and services without the aid of prior experience or working knowledge of the product. This process becomes critical when the official is asked to purchase major products such as 4-W-D Loaders, Backhoe Loaders, or Motor Graders which often remain in agency use for several years regardless of the machine's service support or job suitability.

Armed with limited information, it's not unusual for an agency using the traditional "award going to the low bidder meeting specifications" method of purchasing to spend valuable taxpayer dollars buying a machine, only to end up with a unit that can't do the job for which it was purchased.

The Five Step Method to Successful Specification Writing is a proven approach for helping take the guesswork and post-purchase surprises out of equipment buying. The basic elements of the Five Step Method include:

1. Understanding Job Requirements.
2. Determining What's Most Important.
3. Evaluating Equipment On-The-Job.
4. Clearly Stating What Is Being Purchased.
5. Establishing a Bid Award Criteria Method.

Although the Five Step Method to Successful Specifications Writing does not guarantee results, it will help answer questions for the serious Public Official who wants to obtain the maximum equipment value from an individual equipment purchasing budget.

**FIVE EASY STEPS TO SUCCESSFUL SPECIFICATION WRITING**

**\* UNDERSTANDING JOB REQUIREMENTS**

- Frequency and duration of machine job assignments
- Machine physical dimension requirements
- Machine minimum performance capabilities
- Job completion time schedule
- Success/satisfaction with present machine being used

**\* DETERMINING WHAT'S MOST IMPORTANT**

- Key machine performance capabilities
- Availability of prompt parts and service
- Ability of machine to perform required job functions
- Delivery schedule for machine
- Acquisition price of machine
- Life cycle cost of machine



Understanding Job Requirements - Reviewing the type of jobs a machine performs and duration of individual job assignments is a good first step in job matching equipment.



Determining What's Most Important - Availability of prompt parts and service is normally a very important, but often unspecified item that should be considered to help reduce equipment risks for the governmental buyer.



Evaluating Equipment On-The-Job - Demonstrating equipment on the job site prior to specification writing is an effective tool in determining if a particular machine/model/type and dealer can really do the job that's required.



Clearly Stating What Is Being Purchased - Listing machine and bidder performance capabilities in a clear and concise manner will help insure maximum return per budget dollar invested in the purchase price.

**\* EVALUATING EQUIPMENT ON-THE-JOB**

- Demonstration of machine prior to specification writing
- Key machine features that allow it to perform critical job performance requirements
- Key machine features that improve its job performance
- Key machine features required to meet agency needs

(Sample of a possible customer evaluation)

EVALUATION CHECKLIST FOR 4 WHEELED DRIVE LOADER

1. Breakout strength (ability to excavate tough materials)
2. Loader dump clearance
3. Stability while traveling with loaded bucket. (sway or bounce when traveling on rough ground)
4. Cabin comfort for operator (seat height, control height, ease of operation)
5. Routine maintenance (ease of daily servicing, fuel, oil, etc.)
6. Ease of changing buckets and attachments
7. Fuel consumption
8. Sound level in operator's compartment
9. Repair availability of individual parts for replacement
10. Amount of traction in slippery operating conditions
11. Operator visibility of bucket
12. Machine turning radius
13. Effectiveness of brakes after working in wet conditions
14. Ability of machine to climb slopes when loaded

EVALUATION CHECKLIST FOR MOTOR GRADER

1. Maneuverability (turning radius, speed, etc.)
2. Blade action (change of tilt on main blade, reach, float, etc.)
3. Breaking strength (ability to move piles of materials, break through crust on roads)
4. Hydraulic system (strength, serviceability, repairability)
5. Cabin comfort for operator (seat height, control layout, control availability, ease of operation, noise level)
6. Routine maintenance (ease of daily servicing, fuel, oil, etc.)
7. Fuel consumption (during grading, transport)
8. Repair (availability of individual broken parts for replacement)
9. Accessories (additional attachments that can be added)
10. Turning radius
11. Range of transmission working speeds (ability to push load at desired speed without lugging or speeding engine)
12. Traction in slippery conditions (effect of differential lock)

**\*CLEARLY STATING WHAT IS BEING PURCHASED**

TECHNICAL vs PERFORMANCE SPECIFICATIONS

Technical specifications are often a group of word descriptions that are an attempt to purchase one manufacturer's machine. The descriptions are often

difficult to justify and encourage bid protests. Bid award is often based on a few considerations such as "lowest bid price meeting specifications exactly as written."

Performance specifications accurately describe the performance levels of the machine and the dealer/manufacturer group needed to meet agency requirements. Performance specifications have been pre-justified either by an actual demonstration/evaluation of the equipment, and/or by a thorough understanding of available equipment designs and dealer/manufacturer support capabilities. Bid award is usually determined by a number of performance considerations.

- GOOD

One, new, backhoe loader, 14-foot digging depth, 60 HP, etc. . .

- BETTER

One, new, wheel backhoe loader, 14-foot ICED 2-foot flat bottom rated digging depth, 60 SAE net HP, 1 cubic yard loader, etc ...

- BEST

One, new, 1988 manufactured (state specific manufacturer and model) backhoe loader or approved equal complete per following specifications and all manufacturer's standard equipment, etc....

REPRESENTATIVE MACHINE FOR BID EVALUATION

The vendor or manufacturer of the machine which is seriously considered for award shall, at the request of the buyer, demonstrate the equipment at a location chosen by the buyer and in the presence of authorized agency personnel to prove any features or performance capabilities which may be in question. Failure of the demonstration machine to meet agency requirements may be adjudged as nonconformance to bid specifications.

PARTS AND SERVICE AVAILABILITY

Since the continuous operation of the machine is of the utmost importance and sometimes of an emergency nature, it is necessary that the successful bidder be in a position to render prompt parts and service. The successful bidder shall maintain and/or have access to parts inventory within \_\_\_\_\_ (list city, county, or state requirement). Said parts inventory shall be of sufficient size and variety to offer a level of parts availability of 95% within 48 hours from time of order by the agency. Availability of normal expenditure items such as filters, vee belts, hydraulic lines, and hoses shall not exceed 24 hours. Bidder shall attach a proposed program for parts and service availability for evaluation. Review of the bidder's ability to provide prompt parts and service will be used in determining low, qualified bidder.

**\*ESTABLISHING A BID AWARD CRITERIA METHOD**

Successful bidder shall be determined using the following point system. Any bidder not providing mandatory features or not meeting minimum

requirements may be disqualified and not assigned a score. Bidder receiving highest number of points shall be considered the successful bidder.

-----AWARD CRITERIA POINTS-----

A. Conformity to bid specifications . . . . .	60 Points
B. Machine job performance . . . . .	60 Points
C. Warranty provided . . . . .	40 Points
D. Parts and service availability . . . . .	40 Points
E. Lowest bid price . . . . .	40 Points
F. Previous experience with bidder. . . . .	20 Points
G. Machine delivery . . . . .	10 Points
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Maximum possible score . . . . .	270 Points

Note: A copy of the full narrative of this paper and further information on successful specification writing techniques, including sample computerized purchase specifications and bid value comparison analysis can be obtained from the author.

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