Condition Based Repair (CBR) Program
Market Investigation (MI)
For Major Secondary Items (MSI) Of
Caterpillar Construction Equipment (CE)

This is the U.S. Army Manufacturer Surveillance Questionnaire (MSQ) which is related to a potential future Condition Based Repair (CBR) Program for the U.S. Army Fleet of MSIs used on various Caterpillar Construction Vehicles within the Continental United States (CONUS) and Outside the Continental United States (OCONUS). The types of MSIs being considered under the CBR program include: Diesel Engines, Transmissions, Multiple Variants of Actuating Cylinders, Axle Assemblies, Torque Converters, Hydraulic Pumps, Final Drive Assemblies, and Hydrostatic Drive Motors. These items are listed in Appendix 1 of this document as the Repairable Component List, where each item line includes: end item model number, item Federal Supply Code (FSC), National Item Identification Number (NIIN), Part Number (PN), and item Nomenclature. The paragraph(s) below contain additional information and questions regarding this MSQ, and if you need further communications with the U.S. Army concerning this questionnaire, you may contact Trisha DeMartino, Contract Specialist, via email at trisha.l.demartino.civ@mail.mil. We thank you in advance, for your time and participation in this Market Investigation (MI).

I. Objectives

a. The objectives of this market investigation are to better understand the availabilities and capabilities of Original Equipment Manufacturers (OEM) or other qualified parts component repairers that can support repairs to the components in Appendix 1. This questionnaire is designed to gauge the interests and current capabilities of the construction equipment component repair industry. The information gathered by the U.S. Army through this MSQ, along with any other market investigation data, is solely intended for use by the U.S. Army and will not be shared amongst competing companies. For instructions and more information regarding proprietary information, please refer to Sections II and IV of this document. Participation in this MI by the various contractors is considered low risk to commercial companies, as responses will be treated, per Section IV, as Proprietary.
b. Participation in this MI provides an important opportunity to influence the solicitation provision and contract clauses, budget requests, and a full range of other elements that supports the acquisition strategy for this potential U.S. Army repair program. The U.S. Army will not provide compensation for any resources spent answering this MSQ and participation is at the discretion of the respondent(s) and their corresponding companies or employers.

II. Instructions

a. Read the capability summary for this effort in Section III of this MSQ. Responses to this survey should be provided within 15 days of posting.

b. Answer all of the questions in the MSQ. If certain U.S. Army capabilities shown in this MSQ are deemed not available, or not achievable according to the respondent's company knowledge, please include an alternate proposal(s) which would be intended to provide the intent of the capability described therein. It is the U.S. Army's desire to avoid "not applicable" (N/A) type answers.
c. Please provide the projected development resources such as cost and timing to support the survey's objectives. This information is essential in understanding the scope of the project and it is understood by the U.S. Army that this information is strictly a rough estimate. The respondent's company is not contractually obligated to this information. Please avoid N/A, not applicable or blank information. The U.S. Army recognizes these are rough estimates and will use the information strictly as a means for gaining general knowledge. Please include development resource cost and timing estimates for all alternate proposals as well as the mainstream proposal.
d. Provide product brochures or other forms of information relevant to this MSQ as is deemed appropriate. Additionally, it is encouraged to provide any additional information that enables the U.S. Army to gain insight into the company, product performance, reliability and warranty performance.
e. Response to this MI should be sent to Trisha DeMartino: trisha.l.demartino.civ@mail.mil via AMRDEC Secure Access File Exchange (SAFE) Web application (SAFE) at URL: https://safe.amrdec.army.mil/SAFE2/ . Any requests for clarifications of this questionnaire shall also be addressed to Trisha DeMartino. Data packages submitted via SAFE must not exceed 2 GB or 25 files per package. If you must send multiple packages due to the size restrictions also include the statement: "#1 of X, #2 of X, etc." in the file description line. This will ensure that we are aware of the number of messages we should expect to receive as your complete response. You can respond in total or to any part of this questionnaire.

III. Summary for the Construction/Material Handling Rebuild Market Investigation

This questionnaire applies to the U.S. Army's efforts to rebuild, refurbish, upgrade and support the existing fleet of construction and material handling equipment. This survey is for specific Caterpillar equipment and is designed to obtain knowledge of the industry's interest and capability to perform repair/rebuild tasks on the Army's Caterpillar equipment in the below list. This MI will be used to assess the applicable market place, and to assist in developing a solicitation for a CBR Program for the Army Fleet of MSIs corresponding to the vehicles in the below list which are both within the CONUS and

OCONUS. These MSIs include: Diesel Engines, Transmissions, Multiple Variants of Actuating Cylinders, Axle Assemblies, Torque Converters, Hydraulic Pumps, Final Drive Assemblies, and Hydrostatic Drive Motors, and they are delineated, by end item, in the Repairable Component List in Appendix 1 with National Stock Numbers (NSNs), Part Numbers, Cage Code, and Nomenclature Much of this Army equipment has endured desert damage caused by sand, grit and heat. Other equipment has damage due to infrequent use or maintenance.

a. 966H Loader, NSN 3805-01-533-1857.
b. 924H Loader, NSN 3805-01-157-6666.
c. CS433C Vibe Roller (Type I and Type III), NSNs 3895-01-456-2733/2734.
d. CS563D Vibe Roller, NSN 3895-01-456-2735
e. CB534B Vibe Roller, NSN 3895-01-396-2822.
f. 815F Compactor. NSN 3805-01-431-8439.
g. D6K Dozer, NSNs 2410-01-565-2599/2600.
h. D7R Dozer, NSNs 2410-01-565-2603/2605.
i. 120M Grader, NSN 3805-01-560-2384.
j. 621G Scraper, NSN 3805-01-550-7164.
k. Deuce (DV100), NSN 2430-01-423-2819.
l. D7G Dozer, NSNs 2410-01-223-0350/7261.
m. 130G Grader, NSNs 3805-01-126-7895/7894.
n. 621B Scraper, NSN 3805-01-153-1854.

IV. Proprietary

GENERAL INFORMATION: The U.S. Government appreciates the time and effort taken to respond to this MSQ. The U.S. Government acknowledges its obligations under 18 U.S.C. §1905 to protect information qualifying as “confidential” under this statute. To avoid possible confusion with the meaning of the term “confidential” in the context of Classified Information,” we will use the term “PROPRIETARY.” Pursuant to this statute, the Government is willing to accept any PROPRIETARY or trade secret restrictions placed on qualifying data forwarded in response to the MSQ and to protect it from unauthorized disclosure subject to the following:

1. Clearly and conspicuously mark qualifying data with the restrictive legend (all caps) "PROPRIETARY" with an explanatory text so the U.S. Government is clearly notified of the data needing to be appropriately protected.
2. In marking such data, please take care to mark only those portions of the data or materials truly proprietary (over breadth in marking inappropriate data as "PROPRIETARY" may diminish or eliminate the usefulness of your response – see item 6 below). Use circling, underscoring, highlighting or other appropriate means to indicate the portion of a single page to be protected.
3. The U.S. Government is not obligated to protect unmarked data. Additionally, marked data which is already in the public domain or in possession of the U.S. Government or 3rd parties, or is afterward placed into public domain by the owner or another party through no fault of the U.S. Government will not be protected once it is in the public domain. Data which is already in the possession of the U.S. Government will be protected in accordance with the government's rights in the data.
4. Proprietary data transmitted electronically, whether by physical media or not, whether by the respondent or by the U.S. Government, shall contain the "PROPRIETARY" legend, with any explanatory text on both the cover of the transmittal email and at the beginning of the file itself. Where appropriate for only portions of an electronic file, use the restrictive legends "PROPRIETARY PORTION BEGINS" and "PROPRIETARY PORTION ENDS."
5. In any reproductions of technical data or any portions thereof subject to asserted restrictions, the U.S. Government shall also reproduce the asserted restriction legend and any explanatory text.
6. The U.S. Government sometimes uses support contractors in evaluating responses. Consequently, responses which contain proprietary information may receive only limited or no consideration since the respondent's marking of the data as "PROPRIETARY" will preclude disclosure of same outside the U.S. Government and therefore will preclude disclosure to these support contractors assisting the evaluation effort. The U.S. Government will use its best efforts to evaluate those responses that contain proprietary information without using support contractors consistent with the resources available.
7. The U.S Government will not publish the results of this MI. Respondents will not be notified regarding information obtained related to MI. If and when a solicitation is issued, it will be posted on www.fedbizopps.gov. It is the respondent's responsibility to monitor these sites for the releases of any synopsis or solicitation.

Company/Manufacturer's Name:		**Company Mailing Address:**	
Data Universal Numbering System (DUNS) #:		**Contractor And Government Entity (CAGE) Code:**	
Company Contact Name/Title:		**Office Telephone #:**	
Mobile Telephone #:		**Contact's Office Email:**	

Item #	Capability General Description	Capability Detail Description	Respondent's Capability Description	Respondent's Proposed Alternatives and Comments
General Company/Manufacturer Information				
1	Company/Manufacturer & Subcontractors	Are all applicable facilities clearance-capable to handle Classified information? (May not be needed)		
2		List the manufacturing plants & locations (City, State/Province, and Country), building size in square feet and number of employees per location that you would use to execute a repair and/or rebuild program for Cat MSIs?		
3		Describe the configuration and change management process the company uses when conducting engineering,		

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General Company/Manufacturer Information				
		quality, and manufacturing process changes. Include a brief description here with additional detail in a separate file if needed.		
4	Company/manufacturer's electronic capabilities	Have you ever produced Electronic Technical Manuals (ETM) or Interactive Electronic Technical manuals (IETM) for the government? If not, please propose a strategy to incorporate this capability in case it is needed.		
5	Direct Vendor Delivery	Describe the company's experience with Direct Vendor Delivery current or in the recent past. Include the dates and the U.S. Government agency /department.		
6	Small Businesses	Check the box in the next column as is appropriate.	☐ Small Business ☐ VOSB Veteran Owned Small Business ☐ SVOSB Service-disabled Veteran-owned Small Business ☐ HUBZ SB HUBZ one Small Business ☐ SDB Small Disadvantaged Business	

Item #	Capability General Description	Capability Detail Description	Respondent's Capability Description	Respondent's Proposed Alternatives and Comments
General Company/Manufacturer Information				
			☐WOSB Woman-owned Small Business	
7		Small Business Code. Please list all applicable NAICS Codes identifying the company as a small business.		
Operation/Performance Capabilities				
	Repair And Rebuild Capabilities			
1		What construction and/or material handling equipment or similar vehicles have you repaired and/or rebuilt?		
2		What was the extent of the repairs and/or rebuilds? Have you previously been involved with or performed on a major repair program, or any Repair, RESET or SLEP programs for the Army? Please provide examples of the type of work performed and the age of the equipment repaired and/or rebuilt.		
3		Does your firm have previous knowledge or familiarity with		

Item #	Capability General Description	Capability Detail Description	Respondent's Capability Description	Respondent's Proposed Alternatives and Comments
General Company/Manufacturer Information				
		any particular vehicles in the Army inventory? Do you have any special tooling or equipment that would help you to repair components and sub-components for the items in the Appendix 1 Repairable Components List? Please describe and give examples.		
4		What is your strategy to determine which parts will need repair or replacement? Some parts may still be reusable, but require inspection or evaluation to determine their useful life. How does your firm identify these parts, or evaluate their useful or remaining life?		
5		What is the expected turn-around time from arrival in your shop or dealership to shipping the completed vehicle to the unit? What are the major steps and processes		

Item #	Capability General Description	Capability Detail Description	Respondent's Capability Description	Respondent's Proposed Alternatives and Comments
General Company/Manufacturer Information				
		from receipt of the item(s) to delivery to unit(s)?		
6		How will spare parts support for the repaired and/or rebuilt equipment be provided? What processes, such as visual and other inspection processes and cleaning processes, does your company have in place to incorporate reuse and salvage parts and components?		
7		Please provide a list of worldwide facilities, either in your dealer network or that are part of your company, which are capable of performing this type of work. Include contact information, countries supported, and other pertinent information (attachments are acceptable).		
8		What is your strategy for providing for re-engineering parts or subsystems in case original parts are no longer		

Item #	Capability General Description	Capability Detail Description	Respondent's Capability Description	Respondent's Proposed Alternatives and Comments
General Company/Manufacturer Information				
		available to support a rebuild? Do you have any special software, tools, or equipment to assist with reverse engineering, or experience with re-engineering obsolete major or sub-system parts?		
9		Much military construction equipment, material handling equipment, and their related components and sub-components have been modified for military use, including 24 volt electrical systems, special tie-downs for helicopter lift and air drop support, and CARC paint. What is your experience in repairing/replacing these types of non-commercial modifications relative to the parts and sub-components in the Appendix 1 item list? Is your firm familiar with MIL-STD-209?		

Item #	Capability General Description	Capability Detail Description	Respondent's Capability Description	Respondent's Proposed Alternatives and Comments
General Company/Manufacturer Information				
10		Does your firm have military CARC Paint capability? Is your firm familiar with the Army's CARC paint systems (i.e., topcoats, primers, and pretreatments)?		
11		Does your firm have system/subsystem welding capability?		
12		Does your firm have rust removal and/or sand or powder blasting capabilities?		
	Repair And Rebuild History			
1		How long has your firm been doing vehicle and component repairs and rebuilds, and how long have these vehicles been out of production?		
2		How many vehicle component repairs and vehicle rebuilds have been performed in a particular configuration?		
3		Please describe any similar equipment sold to any U.S.		

Item #	Capability General Description	Capability Detail Description	Respondent's Capability Description	Respondent's Proposed Alternatives and Comments
General Company/Manufacturer Information				
		government agency (federal, state, local or foreign)		
	Availability			
1		What is the current repair and/or rebuild rate of MSI components and sub-components? Provide monthly and annual rate for vehicles and their components/sub-components within your capability, and vehicle data used for rate(s).		
2		What is your maximum capacity in vehicle and/or component units?		
3		What is the production lead-time after receipt of an order in days?		
4		Would Army vehicles and/or their Army MSI components be repaired and/or rebuilt in the same facilities as your commercial vehicles and/or components?		
5		Can more than one model be rebuilt at the same facility?		

Item #	Capability General Description	Capability Detail Description	Respondent's Capability Description	Respondent's Proposed Alternatives and Comments
General Company/Manufacturer Information				
	Reliability			
1		Will the reliability of the repaired and/or rebuilt equipment be less than the original? If so, how much less, and what is the effect on the system reliability?		
2		What is the Mean Time Between Failures (MTBF) actually demonstrated during your testing of parts, systems, and vehicles repaired and/or rebuilt by your company? Attachments are recommended here.		
3		What is the achieved Mean Time Between Failure (MTBF) reported by your customers or users on repaired MSIs and/or rebuilt vehicles? Attachments are recommended here also.		
	Maintainability			
1		Explain how maintainability will be affected by your rebuild.		

Item #	Capability General Description	Capability Detail Description	Respondent's Capability Description	Respondent's Proposed Alternatives and Comments
General Company/Manufacturer Information				
2		Explain how any replacement parts no longer provided by the OEM would be introduced into the Federal Supply System. This includes, new National Stock Numbers (NSNs), provisioning information, military technical manual changes, etc.		
	Quality Control and Test Data			
1		What construction, material handling or similar equipment, if any, have you repaired and/or rebuilt for the U. S. Government? Was it standard commercial, modified commercial, or developmental equipment? Please provide quantities and contract numbers.		
2		Do you have a quality control plan or process in place? Is it ISO9000 certified?		
3		What configuration management techniques do		

Item #	Capability General Description	Capability Detail Description	Respondent's Capability Description	Respondent's Proposed Alternatives and Comments
General Company/Manufacturer Information				
		you employ to maintain production configuration?		
4		Are configuration management requirements implemented with your vendors to notify you when they make changes any of the repaired and/or rebuilt components/sub-components used in the Appendix 1 list? Please describe further as it relates to engineering, quality, and manufacturing process changes.		
	Documentation			
1		How will technical manual updates/changes be handled? Will any information be provided to supplement existing manuals if changes are made during repairs or rebuilds?		
	Warranty			
1		Describe any warranties that are offered with any		

Item #	Capability General Description	Capability Detail Description	Respondent's Capability Description	Respondent's Proposed Alternatives and Comments
General Company/Manufacturer Information				
		equipment that you repair and/or rebuild.		
2		Does the warranty include parts and labor?		
3		Does (or will) a warranty include support from a field service representative(s) to repair warranty related issues?		
4		Does (or will) a warranty include support from a field service representative(s) to repair warranty related issues in foreign countries?		

Additional Information	
Subject	Additional Information/Description
Additional Information	Please include any additional information or data/descriptions you deem pertinent and relevant to this MSQ or related thereof. This includes any information which may not be covered or fully covered in the questionnaire. (Tab at the end of the row to add rows). Additional files may also be attached to your response.

Appendix 1 – Repairable Components List			
966H Loader			
FSC	**PART NIIN**	**PN**	**Nomenclature**
2815	015708920	501-9542	Engine (C11)
2520	015708911	2436733	Transmission
4820	015708921	2613945	Valve Assembly, Mani
2520	015708922	2431604	Torque Converter
3040	015680843	1331747	Steering Cylinders
3040	015708918	2424273	Tilt Cylinders
3040	015708916	2424274	Lift Cylinders
3040	015708917	2424275	Cylinder, Actuating
2530	015935530	2928768	Hydraulic Pump
2530	015708919	2419157	Pump Assembly, Power
2520	015708914	1294282	Axle Assembly, Automotive, Driving
2520	015708915	1294281	Axle Assembly, Automotive, Driving
4820	015708913	2613380	Body and Slide, Directional Control Linear Valve

924H Loader			
FSC	**PART NIIN**	**PN**	**Nomenclature**
2520	015998648	2901257	Transmission
3040	015713884	1426251	Steering Cylinders
2590	015933901	2689437	Bucket Tilt Cylinder
2590	015505641	1417483	Hydraulic Lift Cylinder
3040	015713884	1426251	Cylinder Assembly
2520	015713885	2677368	Axle Assembly, Automotive, Driving
2520	015713886	1807503	Transmission, Hydraulic, Vehicular
2520	015716909	1382726	Axle Assembly, Automotive, Driving
2815	015832667	3020572	Engine, Diesel
2815	015961581	435-1694	Engine, Diesel
2520	016155113	2571563	Axle Assembly, Automatic
2530	016170921	12571800	Wheel and Tire Assembly Right
2530	016171879	12566695	Wheel and Tire Assembly Left

CS433C Type I/III Vibe Roller			
FSC	**PART NIIN**	**PN**	**Nomenclature**
2815	014730245	1304800	Engine (3054T)
2815	014376956	1008184	Engine, Diesel
2520	014732299	7X-5281	Axle Assembly, Auto
4320	014732300	1458689	Pump, Radial Pistons
CS563D Vibe Roller			
FSC	**PART NIIN**	**PN**	**Nomenclature**
2815	014764918	143-0037	Engine (3116)
2520	014764919	136-8872	Axle Assembly, Auto
CB534B Vibe Roller			
FSC	**PART NIIN**	**PN**	**Nomenclature**
2815	015616871	1008184	Engine (3045T)
815F Compactor			
FSC	**PART NIIN**	**PN**	**Nomenclature**
2815	014797714	1224210	Engine (3176C ATAAC)
2520	014831886	1223774	Transmission
NP	NP	3G0881	Lift Cylinder

D6K Dozer			
FSC	**PART NIIN**	**PN**	**Nomenclature**
2815	015805848	501-9545	Engine Assembly
4320	015805847	2469876	Implement & Hydraulic Fan Pump
4320	015779025	2436640	RH Hydrostatic Drive Motor
4320	015786999	2436639	LH Hydrostatic Drive Motor
4320	015782119	2436637	Hydrostatic Drive Piston Pump
2590	015953591	383-3368	Winch, Drum, Vehicle Mounting

D7R II Dozer			
FSC	**PART NIIN**	**PN**	**Nomenclature**
2815	015783605	501-9544	Engine Assembly (3176C)
4230	015805853	2995790	Implement Pump
2520	015805854	9W0593	Final Drive Assembly
2540	015805855	1597156	Hydrostatic Drive Motor
2520	015779969	2232451	Transmission
2520	015769179	2326208	Torque Converter
3920	015151570	1291908	Bulldozer Lift Cylinder
3040	015803062	3G4533	Bulldozer Tilt Cylinder
3040	015792646	1647320	Ripper Lift Cylinder
3040	015792647	1894645	Ripper Tilt Cylinder
2590	015876142	2420713	Winch, Drum, Vehicle Mounting
120M Grader			
FSC	**PART NIIN**	**PN**	**Nomenclature**
2520	015787466	3329510	Transmission
2520	015787841	2538405	Axle Assembly, Auto
2815	015789429	2749327	Engine Block Assembly
2520	015807513	2749328	Final Drive (RH)
2520	015917756	2749329	Axle Assembly, Auto

621G Scraper			
FSC	**PART NIIN**	**PN**	**Nomenclature**
2518	016504696	374-1858	Engine Assembly
2520	016502862	496-2787	Differential Assembly
2520	016502863	489-3136	Transmission Assembly
3040	016022774	1083592	Load Hitch Cylinder
3040	016003880	6E3690	Apron Cylinder
3040	011844633	5J2449	Bowl Cylinder (RH)
3040	011824479	5J2450	Bowl Cylinder (LH)
2590	011783131	1U0408	Ejector Cylinder
3040	011826897	3G5192	Steering Cylinder
Deuce			
FSC	**PART NIIN**	**PN**	**Nomenclature**
2815	015300478	57K4860	Engine Dressed (Containerized)
2815	014484533	243-0620	Engine Dressed (Non-Containerized)
2520	014472911	1228646	Transmission
2520	014484532	138-8051	Final Drive Assembly
2520	014480369	122-8644	Torque Converter
D7G Dozer			
FSC	**PART NIIN**	**PN**	**Nomenclature**
2815	012419193	5R7814	Engine, Diesel

2520	011614941	9P5382	Transmission
130G Grader			
FSC	**PART NIIN**	**PN**	**Nomenclature**
2815	011887440	5R7277	Engine
2520	011527143	5R6192	Transmission
621B Scraper			
FSC	**PART IIN**	**PN**	**Nomenclature**
2815	011718490	5R6706	Engine
2520	011718529	7G2780	Transmission