# CATERPILLAR DEALER SERVICE TECHNICIAN

**Dealer and Student Information** 







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The Caterpillar "Think Big" Program is a cooperative two-year college level Student Technician education program that leads to an Associate in Applied Science degree with a major in Caterpillar Service Technology. "Think Big" is offered by CAT participating dealers and is operated by North Dakota State College of Science in Wahpeton, North Dakota.

#### NDSCS Program Coordinator/Instructor

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The North Dakota State College of Science is accredited by The Higher Learning Commission, 230 South LaSalle Street, Suite 7-500, Chicago, IL 60604, 800-621-7440.



### CATERPILLAR "THINK BIG" PROGRAM

#### **PROGRAM OBJECTIVE**

The Caterpillar "Think Big" Program is a cooperative two-year college level Student Technician education program that leads to an Associate in Applied Science degree with a major in Caterpillar Service Technology. The diesel division and NDSCS works in close relationship with the partnering CAT dealers, to administer the program activities. The program is exclusively by and for the partnering CAT dealerships. It should be understood that the students selected for this program will have the opportunity for full time employment with the dealership upon successful completion of the program.

#### **PROGRAM PURPOSE**

America's workplace is changing. Current technology and emerging technological advances constantly increase innovation, productivity and competitiveness in a truly global economy. To meet the new challenges of advancing technology in the workplace, NDSCS is partnering with Caterpillar and its dealership to produce high-performance technicians ready to fill productive roles in both business and society, today and into the future. The purpose of the program is to upgrade the technical competency and professional I level of incoming CAT dealership service technicians. It will train CAT Dealer students to analytically diagnose service and maintain Caterpillar products using recommended procedures, special tools and service information. It will provide course content that will enable successful graduates to advance in position after additional experience, and to understand new systems and components as they are introduced.

#### PROGRAM STRUCTURE

The two-year, five semester program incorporates approximately one half of the time designated for technical/ academic education at North Dakota State College of Science. The remaining time is allocated for on-the job experience at partnering CAT dealerships. These time periods are approximately eight weeks in length each. It is essential for the success of the program that the student's education at NDSCS and dealership work experiences be closely aligned for maximum student learning and retention. Since considerable time is spent at the dealership it is a requirement of the program that students have a partnering CAT dealership prior to enrollment. The primary responsibility for the dealership is to provide training-related employment for the students during their dealership learning/work experience, internship. All tuition, fees, textbooks, travel expenses and housing costs are the responsibility of the student. In addition to these costs, the students are required to purchase a prescribed tool set if they do not already have one.

#### PROGRAM CURRICULUM

Technical training on Caterpillar equipment and components includes the latest developments in Engine Repair, Hydraulic Systems, Electrical and Electronic Systems, Test Procedures and Diagnostic Tools. In addition to the technical curriculum, courses will be offered in areas such as Math; Composition/ Technical Writing; Psychology and Computer Literacy to provide students with the background necessary for effective communication of ideas and the development of interpersonal skills.

#### PURPOSE OF THE INTERNSHIP

The internship allows students to apply, in a real world setting, what they have learned during the previous classroom/lab sessions. In addition, students become familiar with the dealership environment, its organizational structure, and the competencies that are expected of a professional service technician.

#### STUDENT QUALIFICATIONS

Prospective students must be:

- 1. Eighteen years of age (or older) by the time of the first internship.
- 2. High School Graduate or equivalent.
- 3. Able to meet NDSCS and CAT Dealership admission and academic requirements.
- 4. Acceptance by a CAT dealership.
- 5. Possess a valid driver's license and maintain an employable driving record.
- Willing to take a drug test if requested by Dealership. (Note: for many dealerships this is a requirement for employment)
- 7. Sincere about becoming the best service technician he/she can be.

### INTRODUCTION

The Caterpillar Dealer Service Technology Program is designed to develop technically competent entry level service technicians for Caterpillar Dealerships regionally and throughout the world. Caterpillar Company, Peoria, III. endorses the program and participating dealerships partner with NDSCS.

Students receive up to date technical training on Caterpillar equipment and systems through a combination of classroom instruction, hands on laboratory instruction and an internship at the participating Caterpillar Dealer. Work experience at the dealership is structured to relate to the most recent classroom/lab subjects covered at NDSCS. Upon completion of the program, graduates earn an Associate in Applied Science degree (AAS). The Caterpillar Service Technology Program takes five semesters to complete. The five semesters are divided into nine terms, each approximately eight weeks in length. Students complete the 1st, 3rd, 5th, 7th and 9th terms on campus at NDSCS. They complete the 2nd, 4th, 6th and 8th terms at their participating dealership.

If interested, students should complete the NDSCS Admissions application. Candidates also must apply and interview with Caterpillar Dealerships for program selection.

Applicants not selected for the Caterpillar Dealer Service Technology Program are encouraged to enroll in the Diesel Technology Program at NDSCS.

### **RESPONSIBILITIES OF PARTICIPANTS**

#### NORTH DAKOTA STATE COLLEGE OF SCIENCE

- Provide faculty dedicated solely to the CAT "Think Big" Program.
- Provide necessary time to initially train and update the faculty.
- Provide facility dedicated solely to the CAT "Think Big" program: classrooms, labs, etc.
- Appoint a CAT "Think Big" program coordinator.
- Provide advisement for CAT "Think Big" students.
- Maintain up-to-date tools and equipment.
- Grant the Associate of Applied Science degree in Caterpillar Service Technology to graduates.
- Inform dealerships of student progress.
- Assist dealerships with student selection and recruitment.
- Work with the Dealership coordinator to assure involvement in internships.
- Conduct student visitations during internships.
- Establish a CAT dealer prep advisory committee.
- Schedule advisory committee meetings.

#### CAT DEALERSHIPS

- Agree to act as a partnering dealership.
- Appoint an in-dealership coordinator.
- Recruit, interview and select prospective student(s).
- Provide dealership coordinated internship experience in accordance with the program schedule for the duration of the curriculum.
- Provide related work/learning experiences that supplement the students' most recent instruction.

- Agree to pay the student during periods of dealership internship.
- Provide work uniforms for student consistent with dealership policy while at the dealership.
- Proved any other benefits in a manner consistent with other dealership employees.
- Assist in obtaining equipment and training aids.
- Participate in the advisory committee meetings.

#### STUDENT

- Obtain and maintain a CAT dealership employment throughout the program.
- Provide CAT dealership with responsible and productive work effort.
- Participate in all learning activities at scheduled times.
- Maintain academic standards and adhere to academic policies (minimum 3.0) according to NDSCS policy.
- Maintain dealership attendance standards.
- Be responsible for program cost: tuition, fees, books, tools, housing, etc.
- Wear work uniforms, safety glasses and recommended personal safety equipment during campus class/labs and dealership internship experiences.



### CATERPILLAR DEALER SERVICE TECHNICIAN

DCAT 111 DCAT 113 DCAT 114 MATH 120 FYE 101 DCAT 150	1st 8 weeks mid-August thru mid-October Introduction to Caterpillar Service Caterpillar Fuel Systems Fundamentals of Electricity Basic Mathematics I Science of Success Internship I mid-October thru mid-December	<b>Credits</b> 2 3 2 1 2 1 2
2nd Semester DCAT 110 DCAT 112 DCAT 151 ENGL 105 PSYC 100	r <b>3rd 8 weeks mid-January thru mid-March</b> Caterpillar Engine Fundamentals Fundamentals of Hydraulics Internship II Technical Communications Human Relations in Organizations	4 3 2 3 2
<b>3rd Semester</b> DCAT 115 DCAT 116 DCAT 117 MATH 123	June-July Air Conditioning Fundamentals Fundamentals of Transmission and Torque Converters Machine Hydraulic Systems Basic Mathematics II	3 3 3 2

### **COURSE DESCRIPTIONS**

#### DCAT 110 Caterpillar Engine Fundamentals (4 credits)

A lecture/lab course covering engine operating principles, cylinder and piston service, valve service, crankshaft and bearing service, lubrication systems, rebuilding procedures and measurement fundamentals on Caterpillar engines. Caterpillar engines are used for lab disassembly and assembly.

#### DCAT 111 Introduction to Caterpillar Service (2)

This course introduces the student to the Caterpillar organization history and the different parts of the company. Instruction and lab experiences in the shop include safety, shop operation and a major emphasis on how to obtain information using CAT Specific Software Systems.

#### DCAT 112 Fundamentals of Hydraulics (3)

A lecture/lab course designed to teach the basic hydraulic fundamentals. Identification and function of the various components used in Caterpillar hydraulic systems will include vane pumps, gear pumps and piston pumps. Also covered is ISO hydraulic symbol identification and tracing oil flows used in Caterpillar hydraulic systems. Lab exercises include disassembly and assembly of Caterpillar hydraulic components.

#### DCAT 113 Caterpillar Fuel Systems (3)

A lecture/lab course introducing the student to fuel systems used on Caterpillar engines. Combustion chamber design, injectors and injection pumps are covered in this class. Also covered are diagnosing faults in fuel injection and combustion systems, and lab exercises include disassembly and assembly of fuel components used in Caterpillar fuel systems.

#### DCAT 114 Fundamentals of Electricity (3)

A lecture/lab course that introduces the student to basic electrical and electronic fundamentals needed by a technician to properly diagnose and repair the complex electrical systems installed on Caterpillar machines. Included is the study of Ohm's law, series and parallel circuits, test instruments and various components found on Caterpillar equipment. The course does not teach specific machine systems.

#### DCAT 115 Air Conditioning Fundamentals (3)

A lecture, discussion and lab-type course covering the basic theory and operating principles of air-conditioning systems as they relate to Caterpillar equipment. Lab exercises consist of leak detecting, evacuation, reclaiming, charging, component repair and use of test equipment to diagnose and repair malfunctions. (Su)

#### DCAT 116 Fundamentals of Transmission and Torque Converters (3)

A lecture/lab course that covers the various transmissions, torque converters and differentials used in Caterpillar equipment. This course also covers constant mesh, sliding gear, hydrostatic synchromesh and power shift transmissions involving planetaries. At the completion of this course, the student will have working knowledge of basic power train theory. (Su)

#### DCAT 117 Machine Hydraulic Systems (3)

A lecture/lab course designed for inspecting, testing, servicing and diagnosing Caterpillar hydraulic systems and components. Students will conduct testing and adjusting procedures on Caterpillar equipment, utilizing Caterpillar service procedures and test equipment. (Su)

#### DCAT 150 Internship I (2)

This internship is to follow DCAT 110 and DCAT 111. The student will maintain a daily log book. The intern dealer will provide a mentor for the student. During the course of the internship period, an evaluation will be completed between the mentor, instructor, manager and student. (F)

		• • • • • • • • • • • • • • • • • • •
4th Semester 1st 8 weeks m	id-August thru mid-October	
DCAT 250	Internship III	6
2nd 8 weeks a	at NDSCS mid-October thru mid-December	
DCAT 200	Undercarriage/Final Drives	3
DCAT 201	Machine Electronic Systems	3
MFGT 110	Industrial Shop Practices	2
CIS 101	Computer Literacy	2
MATH 125	Basic Mathematics III	2
5th Semester		
3rd 8 weeks n	nid-January thru mid-March	
DCAT 251	Internship IV	6
MFGT 110       Industrial Shop Practices         CIS 101       Computer Literacy         MATH 125       Basic Mathematics III         5th Semester       3rd 8 weeks mid-January thru mid-March		
DCAT 202	Engine Performance	2
DCAT 203	Diagnostic Testing	2
DCAT 204	Machine Specific Systems	3
ENGL 110	College Composition I	3

Class schedule may change without notice.

#### DCAT 151 Internship II (2)

This internship is to follow DCAT 112, DCAT 113 and DCAT 114. The student will maintain a daily log book. The intern dealer will provide a mentor for the student. During the course of the internship period an evaluation will be completed between the mentor, instructor, manager and student. (S)

#### DCAT 200 Undercarriage/Final Drives (3)

A lecture/lab course that introduces the student to undercarriage and drive systems used on the many different types of Caterpillar track machines. Also covered are final drives and braking systems used in Caterpillar track and wheel equipment. This course is a continuation of DCAT 116 Fundamentals of Transmissions and Torque Converters.

#### DCAT 201 Machine Electronic Systems (3)

A lecture/lab course that covers the electronic systems used on Caterpillar equipment. This course provides the background needed to diagnose and repair the electronics and computerized circuits found on Caterpillar equipment and engines. Basic electronic concepts, component function and system operation are covered. Caterpillar's procedures are taught to identify malfunctions and to test the system properly.

#### DCAT 202 Engine Performance (2)

A lecture/lab course that teaches the skills necessary to make CAT engines run at peak performance. The student will be provided with a thorough understanding of the necessary diagnostic skills required for troubleshooting Caterpillar engines and fuel systems. Emphasis will be placed upon knowledge and skills necessary to assure product reliability and performance.

#### DCAT 203 Diagnostic Testing (2)

This course introduces the student to machine problem identification using diagnostic tooling and reference material to properly diagnose and repair the complex systems installed on caterpillar machines. The course will concentrate on repair logic and applications using a troubleshooting and diagnosis process to solve machine faults in the power train, hydraulic system, and electrical system. The remainder of the course will focus on solving actual machine malfunctions, utilizing all diagnostic principles, tooling, and electronic troubleshooting applications.

#### DCAT 204 Machine Specific Systems (3)

This course is designed to expose students to different types of specialty equipment used for various operations, utilizing CAT equipment. Testing and adjustment of equipment will also be covered as per Caterpillar service procedures.

#### DCAT 250 Internship III (6)

This internship is to follow DCAT 200 and DCAT 201. The student will maintain a daily log book. The intern dealers will provide a mentor for the student. During the course of the internship period an evaluation will be completed between the mentor, instructor, manager and student. (F)

#### DCAT 251 Internship IV (6)

This internship is to follow DCAT 202 DCAT 203 and DCAT 204. The student will maintain a daily log book. The intern dealers will provide a mentor for the student. During the course of the internship period an evaluation will be completed between the mentor, instructor, manager and student. (S)

### STUDENT SELECTION PROCEDURES

Students enroll in the Caterpillar Dealer Service Technology Program at the beginning of fall semester. Students are accepted into the program upon completion of admission into NDSCS. Students should do the following:

Apply for admission to NDSCS through the Enrollment Services office. Enrollment Services will not accept faxed applications for any program.

- Submit high school transcripts or GED to Enrollment Services.
- Complete ACT minimum test score of 15 in reading and English.

#### Complete the CAT dealer employer application.

- Secure approval from a participating dealer.
- Visit NDSCS and complete orientation (testing, academic advising and scheduling, and registration).

#### ADMISSIONS

Students should contact the NDCS Enrollment Services office (701-671-2173) to receive information on the college, financial aid and housing. Students should complete the applications and return them to NDSCS promptly. Assessment tests will be required prior to admission into the Caterpillar Dealer Service Technology Program.

#### HIGH SCHOOL OR GED TRANSCRIPTS

Applicants must demonstrate completion of high school or GED equivalency. Students should contact their high school guidance office and request that their transcript be submitted to NDSCS Enrollment Services.

#### ORIENTATION

All freshmen must complete an orientation. Once a student is admitted to NDSCS, Enrollment Services will schedule orientation for the student. Orientation includes a tour of the NDSCS campus, financial aid counseling, scheduling (academic advising) and registration.

#### CAT DEALERSHIP APPROVAL

Students who successfully complete the admission process are eligible to interview and test with the CAT dealership of their choice. The interview should take place at the dealership and participant's goals should be discussed. All students must have a dealership endorsement before enrollment can be completed. Should the interview prove successful, the CAT dealer coordinator will notify NDSCS of the agreement to approve the individual.

#### SCHOLARSHIP AVAILABILITY

A general scholarship application must be completed to be eligible for scholarships.

### COLLEGE EXPENSES

Contact the Director of Enrollment Services for tuition costs. Out-of-state students in a partnership program will pay the in-state tuition rate. The exception is Minnesota students who pay the agreed-to reciprocity rate. **NOTE**: All tuition, fees, room and board costs are tentative and are subject to change. Personal costs are rough estimates of personal spending. Contact the NDSCS Enrollment Services office for a current information sheet.

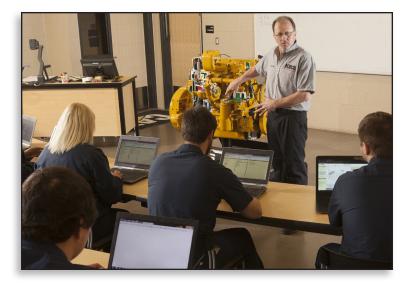
### FINANCIAL ASSISTANCE

Students deciding to be part of the CAT dealer "Think Big" program may have a need for financial assistance. Students involved in the program have the opportunity to earn while they learn during the dealership internship portion of the program. These earnings may be applied to program costs. Additional financial aid, through loans or grants, for tuition, books, tools, on-campus room and board, etc. may be available through various financial assistance programs. Students needing financial assistance are encouraged to complete the applications for financial aid as early as possible. Following application submittal, allow an 8-10 week period for processing. Early application assures availability of funds, if qualified, and allows the Financial Aid office to prepare a realistic financial aid package.

Financial Aid information may be obtained by calling the Student financial Aid office at 1-800-342-4325, ext. 3-2207.

**NOTE:** Tools required for the CAT "Think Big" program are considered an educational expense and should be included in education costs when applying for student financial aid.





### CONTACT INFORMATION

Dealers and students should direct all inquiries to the following contacts:

#### **Terry Marohl**

Diesel Technology Department Chair/Instructor North Dakota State College of Science 800 6th Street North, Wahpeton, ND 58076 1-800-342-4325 ext. 2308 Terry.Marohl@ndscs.edu

#### **Michael Seedorf**

CAT Dealer Service Coordinator/Instructor North Dakota State College of Science 800 6th Street North, Wahpeton, ND 58076 1-800-342-4325 ext. 2101 Michael.L.Seedorf@ndscs.edu

#### **Kelley Maxwell**

Global ThinkBIG & Accelerated Basics Customer Services Support Division Caterpillar Inc. 501-SW Jefferson Ave., Peoria, IL 61630-2125 309-675-4975 Maxwell kelley g@cat.com

#### Rebecca Rensvold

Training and Development Manager Butler Machinery Company 3401 33rd St. SW, Fargo, ND 58104 701-298-1735 RebeccaRensvold@butlermachinery.com

### BUTLER MACHINERY STORE LOCATIONS

#### NORTH DAKOTA

Bismarck Devils Lake Dickinson Fargo Grand Forks Hankinson Hoople Jamestown Minot

#### SOUTH DAKOTA

Aberdeen Huron Pierre Rapid City Sioux Falls

### APPLICATION FOR INTERNSHIP Caterpillar Dealer Service Technology Program

### All applicants must apply on-line at www.butlermachinery.com/careers.

If you have any questions, please contact:

#### Rebecca Rensvold

701-298-1735 RebeccaRensvold@butlermachinery.com



## STUDENT TOOL LIST

Students are responsible for purchasing or providing their own tools. Below is a list of required tools for the program. These tools can be purchased from NDSCS at a substantial discount through the Bookstore.

QTY	DESCRIPTION	CATALOG #	VENDOR	QTY	DESCRIPTION	CATALOG #	VENDOR
1	Classic 7 Drawer, 40", Red	KRA4107FPBO	Snap-On	1	Bronze Drift Punch 13/16" pt., 8"	PPB826A	Snap-On
1	3/8" Dr., Adaptor Set, Comb. Drive, 6 pc.	1206GS	Snap-On	1	Race Punch, Oval Bearing 20"	PPC20LB	Snap-On
1	1/4" Dr., General Service, Fractional/Metric, 44 pc., 6 pt.	144TMPB	Snap-On	1	Punch & Chisel Set, 11 pc	PPC710BK	Snap-On
1	3/8" Dr., Torx®, Standard, T27 to T55 Plus GM-Style T47	207EFTXY	Snap-On	1	Wire Stripper, Cutter, Crimper/Bolt Cutter	PWC9	Snap-On
	(7 pcs.)			1	Socket, Spark Plug, Shallow, 13/16", 6 pt.	S9704KA	Snap-On
1	Set, Socket, Deep, 12 pt. 11 pc. 1/4" to 7/8"	211SFY	Snap-On	1	Socket, Spark Plug, Shallow, 5/8", 6 pt.	S9706KA	Snap-On
1	3/8" Dr., Metric Socket Set, Shallow, 12 pc., 12 pt.	212FMY	Snap-On	1	Screwdriver Flat Tip, Pocket, Orange, .025" Tip, 4-3/4"	SDD2240	Snap-On
1	3/8" Dr. Metric Deepwell Socket Set (8mm-19mm)	212SFSMY	Snap-On	1	Instinct AWL	SG7ASABR	Snap-On
1	Set, General Service, 12 pt. (18 pc.) (Tools Only)	218AFP	Snap-On	1	Mini Pick Set, Pastic Handle, Black, 4 pc.	SGASA204CR	Snap-On
1	1/2" Dr., Metric Socket Set, Shallow, 12 pt.	313SWMYA	Snap-On	1	8 pc. Screwdriver Set, Red, Soft	SGDX80BR	Snap-On
1	1/2" Dr., General Service Set, 17 pc., 6 pt.	317MSPC	Snap-On	1	1/4" Driver, Long Shank 5-3/4"	SGT4BR	Snap-On
1	1/4 NPT F Coupler Auto Type	AHC24D	Snap-On	1	Striking Prybar 4 pc. Set Orange	SPBS704AO	Snap-On
4	Air Line Adaptor, Male	AHC24MD	Snap-On	1	Snap Ring Pliers, Angle Jaws 8-7/8" Long	SRP2B	Snap-On
1	Hex Wrench Set, Silver, L-Shape, 15 pc.	AW1015DK	Snap-On	1	Snap Ring Pliers, Angle Jaws 14" Long	SRP4	Snap-On
1	Hex Metric Wrench Set, Gold, L-Shape, 14 pc.	AWM140DK	Snap-On	1	Pliers, Retaining Ring 7-7/16"	SRPC7000	Snap-On
1	Pliers, Adjustable Joint, Straight Serrated Jaws 12-3/4	AWP120	Snap-On	1	Metric, Shallow, 10mm, 12 pt.	SWM101A	Snap-On
1	Curved Locking Jaw Pliers	BLP10	Snap-On	1	Metric, Shallow, 11mm, 12 pt.	SWM111A	Snap-On
1	Hammer, Ball Peen 16 oz. Fiberglass	BPN16B	Snap-On	1	Metric, Shallow, 25mm, 12 pt.	SWM251	Snap-On
1	Carbon Scraper, Rigid, Black, 14"	CSA14C	Snap-On	1	Metric, Shallow, 26mm, 12 pt.	SWM261	Snap-On
1	Feeler Gauge, Bent Blade, 25 Blades	FB300A	Snap-On	1	Metric, Shallow, 27mm, 12 pt.	SWM271	Snap-On
1	Feeler Gauge, U.S./Metric, 25 Blades	FB325A	Snap-On	1	Torgometer, Basic 3/8" Dr. 300 lb.	TE25A	Snap-On
1	Air Chuck, Dual Foot, 6-1/2"	GA356B	Snap-On	4	Torque Wrench, Adj. Click Type, U.S., Flex-Ratchet, 20-	TQFR100C	Snap-On
1	Set Dial Test Indicator, Long Range	GA3645	Snap-On	I	100 ft./lb., 3/8" Dr.	IQFN 100C	Shap-On
1	Black Frame Safety Glasses	GLASS31BK	Snap-On	1	Torque Wrench, Adj. Click Type, U.S., Flex-Ratchet,	TQFR250E	Snap-On
1	Hammer, Dead Blow 48 oz.	HBFE48	Snap-On	4	40-250 ft./lb., 1/2" Dr.	TW401	
1	B.P. Hammer, Hand Drilling, Fiberglass Handle 4 lb.	HD4SG	Snap-On	1	Socket, Shallow 1-1/4" 12 pt.	WBBS2	Snap-On Snap-On
1	Tapered Rubber Tip Blow Gun, 4-1/2" Long	JT13B	Snap-On	1	Brush, Wire, Brass, Miniature, 2" Ear Protector	YA160A	
1	Blue Point 0-1" Micrometer	MICB1B	Snap-On	1		YA160A YA247-2	Snap-On
1	Nylon Strap Oil Filter Wrench	KDT3149	Snap-On	1	Soapstone Marker	YA247-2 YA427B	Snap-On Snap On
1	5/16" Comb. Wrench, Std. Length, 12 pt.	OEX10B	Snap-On	1	Welding Gloves	YA4274A	Snap-On
1	Comb. Wrench Set, 14 pc., 12 pt.	OEX714KB	Snap-On	1	Oil Filter Slip Joint Pliers Oil Filter Pliers	YA4274A YA4275	Snap-On
1	Metric Wrench, Comb., Short, 6mm, 12 pt.	OEXM6B	Snap-On				Snap-On
1	Metric Wrench Set, Comb., 10 pc., 12 pt.	OEXM710B	Snap-On	1	Lifting Brackets	7100U1	Otc
1	Metric Wrench, Comb., Short, 7mm, 12 pt.	OEXM7B	Snap-On	1	Measuring Tape, U.S./Metric,	33-215 2074974	Stanley Fluke
1	Metric Wrench, Comb., Short, 8mm, 12 pt.	OEXM8B	Snap-On	1	Fluke Multimeter 87-V		
1	Metric Wrench, Comb., Short, 9mm, 12 pt.	OEXM9B	Snap-On	1	Cut 1 Dipped Gloves SML-2XI (Sized)	48-22-8903	Milwaukee
1	Prybar Set (4 pcs.)	PBS704	Snap-On	1	4" Endless Sling	EN1801TX4	Tuff-Edge
1	Pen Tire Pressure Gauge, 10 to 150 PSI	PGPL150	Snap-On	1	Hole Gauge .300400"	CEN-4313	Central Tools
1	Putty Knife Scraper, Red, 1-1/4"	PK53A	Snap-On	1	HD Orange Nitrile PF Ind. Gloves Box/100 (Sized)	GWGN46100	Gloveworks
1	3 pc. Pliers Set	PL307ACF	Snap-On	4	Mini Led 2-Cell AAA Red Flashlight	SP32036	Maglite
1	Dial Caliper 0"-6" Range	PMF147A	Snap-On	I	Deutsch Removal Tool Set	588U	Thexton



### NDSCS.EDU/CATERPILLAR