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REVISION INFORMATION SHEET

ONTARIO PROVINCIAL STANDARDS FOR ROADS AND PUBLIC WORKS

VOLUME 1 MUNICIPAL AND PROVINCIAL COMMON GENERAL AND CONSTRUCTION SPECIFICATIONS

MANUAL REVISION #97

APRIL 2016

UPDATING ONTARIO PROVINCIAL STANDARDS FOR YOUR USE

Each roads and public works owner (Owner) is responsible for determining implementation dates and directions for use of Ontario Provincial Standards; therefore, manual holders are cautioned about immediately discarding superseded and cancelled standards.

A NOTE TO DESIGNERS OF MUNICIPAL CONTRACTS REGARDING APPENDICES

There are a number of OPS specifications published with appendices containing supplemental requirements that modify the specification. These specifications contain information written for use in provincial contracts. The appendices contain supplemental requirements that modify the provincial requirements so the specifications can be used in municipal contracts. The specifications are easily identified, as the table of contents for each specification lists the appendix containing the supplemental requirements (e.g., Supplemental Requirements for Using OPSS XXX in Municipal Contracts).

Designers of municipal contracts should review each specification to determine if the supplemental requirements should be invoked in their contracts. To ensure completeness of municipal Contract Documents, designers should invoke the appendices by referencing them in the Contract Documents.

ACCESSING AND OBTAINING ONTARIO PROVINCIAL STANDARDS

The Ontario Provincial Standards for Roads and Public Works (OPS) manuals and the latest published updates for each of the eight OPS manuals are available as follows:

- Available electronically on the OPS/MTO website. Online access to the current, updated, and archived standards; indexes; OPS User Notes; and publication Revision Information Sheets are available free of charge at the site.
(<http://www.rags.mto.gov.on.ca/techpubs/ops.nsf/OPSHomepage>)
- Hard-copy format available from Publications Ontario by telephone at 1-800-668-9938 or online. Updates and OPS manuals are available for a cost-recovery fee.
(www.publications.serviceontario.ca)

- The eight OPS manuals of standards are available on one CD in PDF format. The OPS drawings published in Volumes 3 and 4 are available in AutoCAD format on a separate CD. These CDs are available from Publications Ontario or by telephone at 1-800-668-9938 or online for a cost-recovery fee. The updates are not available on CDs as an update package.
(www.publications.serviceontario.ca)

At the Publications Ontario web page, you can type "Ontario Provincial Standards," "OPS," "OPSS," or "OPSD" in the search box, and all related products for the Ontario Provincial Standards will be listed, click on the item you wish to purchase, add the item to your cart, then follow the instructions to complete your order. If trying to order an OPS product online from Publications Ontario and it is shown as Out of Stock, you can backorder the product by telephone at 1-800-668-9938.

In order to receive the Municipal Engineers Association (MEA) purchase price, MEA members should visit the MEA website (www.municipalengineers.on.ca/) for the MEA Publications Ontario order form for hard-copy manuals and CDs.

MTO employees should contact Simon Leung, Account Representative at Publications Ontario, by email (simon.leung@ontario.ca) to set up an account in order to receive the MTO purchase price for technical publications, including the Ontario Provincial Standards.

Links to Publications Ontario and the Ontario Provincial Standards on the MTO Library website are available on the OPS website (www.ops.on.ca). Also on this site under News and Activities are notices for updates and changes in OPS.

Questions should be directed by email to Ontario.Prov.Standards@ontario.ca

YOU SHOULD REGISTER YOUR OPS MANUALS AND CDs

Users of OPS do not receive notices of OPS updates as they had in the past. Methods of notification from Publications Ontario for the future are being investigated, and you will be informed of them as they become available. In the interim, an email will be sent to OPS users who have registered their OPS manuals and CDs with OPS.

Owners of OPS manuals, who have not yet done so, are requested to register their OPS hard-copy manuals and CDs with OPS by email at Ontario.Prov.Standards@ontario.ca. The registration form and submission instructions are available on the OPS website (www.ops.on.ca), Miscellaneous Info, OPS Forms.

WAITING TO HEAR FROM YOU

If you have a suggestion to revise a standard or you have a standard that works in your ministry, municipality, or area, send it to the Head, OPS Administration, for review and possible inclusion into the Ontario Provincial Standards.

THIS MANUAL IS REVISED AS FOLLOWS:

Index Pages Volume 1

Please remove the entire index and replace with the attached revised index.

Standard Specifications Volume 1

Superseded/Cancelled (Remove)		Revised/New (Insert)		Remarks
OPSS	Dated	OPSS	Dated	
127	April 2015	127	April 2016	“SCHEDULE OF RENTAL RATES FOR CONSTRUCTION EQUIPMENT, INCLUDING MODEL AND SPECIFICATION REFERENCE” “Annual spring update”
352	November 2000			“CONSTRUCTION SPECIFICATION FOR CONCRETE STEPS” OPSS Cancelled as not used. Associated drawings are non-compliant with AODA.
490	November 2015	490	April 2016	“CONSTRUCTION SPECIFICATION FOR SITE PREPARATION FOR PIPELINES, UTILITIES, AND ASSOCIATED STRUCTURES” See Summary of Revisions.
903	November 2009	903	April 2016 Notice to Users of OPSS 903	“CONSTRUCTION SPECIFICATION FOR DEEP FOUNDATIONS” Superseded by OPSS.PROV 903 in OPS Volume 5 and OPSS.MUNI 903 in OPS Volume 7.

SUMMARY OF REVISIONS TO OPSS.PROV 490

SITE PREPARATION FOR PIPELINES, UTILITIES, AND ASSOCIATED STRUCTURES

- Section 490.02, References, "MUNI" reference removed.
- Section 490.07.06, Stripping and Stockpiling Topsoil, "MUNI" reference removed.

MANUAL REVISION RECORD

Municipal and Provincial Common

Volume 1 – General and Construction Specifications

This record should remain in the manual at all times. Revisions are numbered sequentially. This sheet should be filled in after each revision has been placed into the manual. It will quickly indicate to users whether the contents of the manual are up-to-date.

REVISION NUMBER	REVISION DATE	ENTERED BY	REVISION NUMBER	DATE	ENTERED BY
74	APRIL 2005	Included in new manuals	100		
75	NOV 2005	Included in new manuals	101		
76	APRIL 2006	Included in new manuals	102		
77	NOV 2006	Included in new manuals	103		
78	APRIL 2007	Included in new manuals	104		
79	NOV 2007	Included in new manuals	105		
80	APRIL 2008	Included in new manuals	106		
81	NOV 2008	Included in new manuals	107		
82	APRIL 2009	Included in new manuals	108		
83	NOV 2009	Included in new manuals	109		
84	APRIL 2010	Included in new manuals	110		
85	JULY 2010	Included in new manuals	111		
86	NOV 2010	Included in new manuals	112		
87	APRIL 2011	Included in new manuals	113		
88	NOV 2011	Included in new manuals	114		
89	APRIL 2012	Included in new manuals	115		
90	NOV 2012	Included in new manuals	116		
91	APRIL 2013	Included in new manuals	117		
92	NOV 2013	Included in new manuals	118		
93	APRIL 2014	Included in new manuals	119		
94	NOV 2014	Included in new manuals	120		
95	APRIL 2015	Included in new manuals	121		
96	NOV 2015	Included in new manuals	122		
97	APRIL 2016	Included in new manuals	123		
98			124		
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DATE	SPEC. NO. OPSS	TITLE
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APR 2007	100	Notice to Users of OPSS 100 (General Conditions of Contract)
OCT 1992	102	Weighing of Materials
NOV 2012	106	Electrical Work
NOV 2014	120	Notice to Users of OPSS 120 (The Use of Explosives)
APR 2016	127	Schedule of Rental Rates for Construction Equipment, Including Model and Specification Reference
APR 2006	128	Supply of Pre-Qualified Material and Products
NOV 2011	180	Management of Excess Materials
NOV 2012	182	Notice to Users of OPSS 182 (Environmental Protection for Construction in Waterbodies and on Waterbody Banks - <i>Reissued 2010-11</i>)
DIVISION 2 - GENERAL GRADING		
NOV 2011	201	Clearing, Close Cut Clearing, Grubbing, and Removal of Surface and Piled Boulders
NOV 2013	206	Notice to Users of OPSS 206 (Grading)
NOV 2014	209	Notice to Users of OPSS 209 (Embankments Over Swamps and Compressible Soils)
NOV 2013	212	Notice to Users OPSS 212 (Earth Borrow)
NOV 2014	220	Notice to Users of OPSS 220 (Wick Drain Installation)
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NOV 2009	301	Restoring Unpaved Roadway Surfaces
NOV 2007	302	Priming Granular Base
NOV 2009	303	Double Chip Seal
NOV 2006	304	Single and Double Surface Treatment
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NOV 2012	310	Hot Mix Asphalt
NOV 2009	311	Asphalt Sidewalk, Driveway, and Boulevard and for Sidewalk Resurfacing
NOV 2009	312	Asphalt Curb and Gutter Systems
APR 2007	313	Notice to Users of OPSS 313 (Hot Mix Asphalt - End Result)
NOV 2015	314	Notice to Users of OPSS 314 (Untreated Subbase, Base, Surface, Shoulder, Selected Subgrade, And Stockpiling)
NOV 2010	316	Extruded Expanded Polystyrene Frost Heave Treatment
NOV 2014	320	Notice to Users of OPSS 320 (Open Graded Drainage Layer)
NOV 2014	330	Notice to Users of OPSS 330 (In-Place Full Depth Reclamation of Bituminous Pavement and Underlying Granular)
NOV 2015	331	Notice to Users of OPSS 331 (Full Depth Reclamation with Expanded Asphalt Stabilization)
APR 2004	332	Hot In-Place Recycling and Hot In-Place Recycling with Integral Overlay
NOV 2015	333	Notice to Users of OPSS 333 (Cold In-Place Recycling)
NOV 2007	334	Cold Recycled Mix
NOV 2015	335	Notice to Users of OPSS 335 (Cold In-Place Recycling with Expanded Asphalt)
NOV 2009	336	Micro-Surfacing (<i>Reissued 2010-11</i>)
NOV 2008	337	Slurry Seal
NOV 2015	341	Routing and Sealing Cracks in Hot Mix Asphalt Pavement
MAR 1998	350	Concrete Pavement and Concrete Base
NOV 2015	351	Concrete Sidewalk



DATE	SPEC. NO. OPSS	TITLE
NOV 2010	353	Concrete Curb and Gutter Systems
NOV 2014	355	Notice to Users of OPSS 355 (Installation of Interlocking Concrete Pavers)
NOV 2010	356	Pervious Concrete Pavement for Low-Volume Traffic Applications
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NOV 2011	361	Rubblizing Concrete Pavement and Concrete Base
NOV 2015	362	Fast Track Full Depth Repairs to Concrete Pavement
NOV 2014	363	Notice to Users of OPSS 363 (Repairing Rigid Pavement with Precast Concrete Slabs)
NOV 2015	364	Partial Depth Repairs in Concrete Pavement
NOV 2014	365	Notice to Users of OPSS 365 (Cross-Stitching Longitudinal Cracks in Concrete Pavement and Concrete Base)
NOV 2008	369	Sealing or Resealing of Joints and Cracks in Concrete Pavement and Concrete Base
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NOV 2013	402	Excavating, Backfilling, and Compacting for Maintenance Holes, Catch Basins, Ditch Inlets, and Valve Chambers (Formerly OPSS 516)
NOV 2010	403	Rock Excavation for Pipelines, Utilities, and Associated Structures in Open Cut (Formerly OPSS 515)
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NOV 2012	412	Sewage Forcemain Installation in Open Cut
NOV 2014	413	Manure Pipeline Installation in Open Cut
NOV 2013	415	Pipeline and Utility Installation by Tunnelling
NOV 2013	416	Pipeline and Utility Installation by Jacking and Boring
NOV 2015	421	Notice to Users of OPSS 421 (Pipe Culvert Installation In Open Cut)
NOV 2015	422	Precast Reinforced Concrete Box Culverts in Open Cut
NOV 2014	441	Watermain Installation in Open Cut (Formerly OPSS 701)
NOV 2010	442	Corrosion Protection of New and Existing Watermains
NOV 2012	450	Pipeline and Utility Installation in Soil by Horizontal Directional Drilling
NOV 2009	460	Pipeline Rehabilitation by Cured-in-Place Pipe (Reissued 2010-11)
NOV 2014	462	Cement Mortar Lining of Watermains
NOV 2015	463	Pipeline and Conduit Installation by Pipe Bursting
APR 2016	490	Site Preparation for Pipelines, Utilities, and Associated Structures (Formerly OPSS 503)
NOV 2010	491	Preservation, Protection, and Reconstruction of Existing Facilities (Formerly OPSS 504)



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NOV 2015	493	Temporary Potable Water Supply Services (Reissued 2010-11)
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NOV 2009	503	Site Preparation for Pipelines, Utilities, and Associated Structures (Relocated: Now OPSS 490)
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NOV 2009	504	Preservation, Protection, and Reconstruction of Existing Facilities (Relocated: Now OPSS 491)
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NOV 2014	510	Notice to Users of OPSS 510 (Removal)
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NOV 2014	512	Notice to Users of OPSS 512 (Installation of Gabions)
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NOV 2009	514	Trenching, Backfilling, and Compacting (Relocated: Now OPSS 401)
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NOV 2005	515	Rock Excavation for Pipelines, Utilities, and Associated Structures in Open Cut (Relocated: Now OPSS 403)
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NOV 2005	516	Excavating, Backfilling, and Compacting for Maintenance Holes, Catch Basins, Ditch Inlets, and Valve Chambers (Relocated: Now OPSS 402)
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NOV 2005	541	Chain-Link Fence (Relocated: Now OPSS 772)
NOV 2006	542	Expanded Metal Anti-Glare Screen (Relocated: Now OPSS 791)
DEC 1990	543	Traffic Control Signing (Relocated: Now OPSS 706)
NOV 2008	552	Steel Beam Guide Rail and Cable Guide Rail (Relocated: Now OPSS 721)
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NOV 2008	555	Guide Rail End Treatment - Eccentric Loader Terminal System (Relocated: Now OPSS 730)
NOV 2008	556	Connecticut Impact Attenuation System (Relocated: Now OPSS 753)
NOV 2008	558	Guide Rail End Treatment - Crash-Cushion Attenuating Terminal System (Relocated: Now OPSS 731)
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NOV 2007	565	The Protection of Trees (Relocated: Now OPSS 801)
NOV 2007	570	Topsoil (Relocated: Now OPSS 802)
NOV 2007	571	Sodding (Relocated: Now OPSS 803)
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NOV 2006	577	Temporary Erosion and Sediment Control Measures (Relocated: Now OPSS 805)



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NOV 2013	731	Guide Rail End Treatment - Crash-Cushion Attenuating Terminal System
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- .03 Hydraulic Crane, Carrier Mounted
- .04 Lattice Boom Crane, Crawler Mounted
- .05 Lattice Boom Crane, Carrier Mounted
- .06 Aerial Bucket Lift, Truck Mounted, Including Truck
- .07 Aerial Bucket Lift, Self-Propelled, Telescopic/Articulating
- .08 Scissor Lift, Self-Propelled
- .09 Tool Carrier
- .10 Telescopic Handlers

127.02.10 Pile Driving Equipment

- 127.02.10.01 Hammer, Open End, Diesel
- .02 Driver/Extractor, Vibratory Centrifugal, Including Power Pack, Excluding Crane
- .03 Leads, Including Hydraulics and Kicker
- .04 Hydraulic Post Driver
- .05 Universal Piling Machine, Including Attachment

127.02.11	Drilling Equipment
127.02.11.01	Mechanical Drilling Equipment, Truck Mounted, Including Auger and Crowd and Power Pack
.02	Mechanical Drilling Equipment, Crawler Mounted, Including Auger
.03	Hydraulic Drill Rig
.04	Mechanical Drilling Equipment, Crane Mounted Attachment, Including Auger
.05	Horizontal Earth Boring Equipment
.06	Trenchless Directional Drill, Track Mounted
.07	Hydraulic Rock Drill, Including Power Pack, Excluding Drill Steel and Bits
.08	Tieback Drill Rig, Hydraulic, Dual Head
127.02.12	Broom and Sweeper Equipment
127.02.12.01	Front Mounted Attachment, Hydraulic
.02	Self-Propelled, Dual Control
127.02.13	Forestry Equipment
127.02.13.01	Brush Chipper, Tow Type
.02	Log Skidder, Cable/Grapple
.03	Chain Saw
127.02.14	Portable Generating Equipment
127.02.14.01	Generator, Gas or Diesel
127.02.15	Pumping Equipment
127.02.15.01	Centrifugal, Dewatering, Including 6 m Suction and 7.5 m Discharge
.02	Centrifugal, Trash, Including 6 m Suction and 7.5 m Discharge
.03	Diaphragm, Including 6 m Suction and 7.5 m Discharge
.04	Electric Submersible, Including 30 m Cable and 7.5 m Discharge, Excluding Generator
127.02.16	Welding Equipment
127.02.16.01	DC Arc Welder, Engine Driven, Including Rods
.02	Oxygen/Acetylene Torch, Including Gas, Excluding Rods
127.02.17	Traffic Control Devices
127.02.17.01	Portable Variable Message Signs
.02	Buffer Vehicles, Including Arrow Board and Attenuator
.03	Traffic Barrels
.04	Portable Light Towers
127.02.18	Miscellaneous Equipment
127.02.18.01	Hydro Excavation Equipment

127.03	MANUFACTURERS' MODEL, SPECIFICATION, AND CAPACITY REFERENCE GUIDE
127.03.01	Air Equipment
.02	Asphalt Equipment
.03	Compaction Equipment
.04	Concrete Equipment
.05	Crushing Equipment - Not Used
.06	Earth Moving, Grading Equipment
.07	Excavation Equipment
.08	Haulage Equipment
.09	Hoisting Equipment
.10	Pile Driving Equipment
.11	Drilling Equipment
.12	Broom and Sweeper Equipment
.13	Forestry Equipment
.14	Portable Generating Equipment
.15	Pumping Equipment
.16	Welding Equipment
.17	Traffic Control Devices - Not Used
127.04	NON-CURRENT EQUIPMENT, SCHEDULE OF RENTAL RATES FOR CONSTRUCTION EQUIPMENT
127.04.01	Air Equipment
127.04.01.01	Air Track, Crawler Mounted, Excluding Compressor, Excluding Drill Steel and Bits
127.04.02	Asphalt Equipment - Not Used
.03	Compaction Equipment - Not Used
127.04.04	Concrete Equipment
127.04.04.01	Air Breaker, Boom Mounted, Excluding Points
.02	Saw, Self-Propelled, Excluding Blades
127.04.05	Crushing Equipment
.01	Roll Crusher
127.04.06	Earth Moving, Grading Equipment
127.04.06.01	Motor Grader, Rigid Frame
127.04.07	Excavation Equipment
127.04.07.01	Clams, Draglines, Shovels, Crawler Mounted, All Cable
127.04.08	Haulage Equipment
127.04.08.01	Rear Dump, Tandem Rear Axle, Diesel or Gas

127.04.09	Hoisting Equipment - Not Used
.10	Pile Driving Equipment - Not Used
.11	Drilling Equipment
127.04.11.01	Mechanical Drilling Equipment, Carrier Mounted, Including Auger
.12	Broom and Sweeper Equipment - Not Used
.13	Forestry Equipment - Not Used
.14	Portable Generating Equipment - Not Used
.15	Pumping Equipment - Not Used
.16	Welding Equipment - Not Used
.17	Traffic Control Devices - Not Used
127.05	NON-CURRENT EQUIPMENT, MANUFACTURERS' MODEL, SPECIFICATION, AND CAPACITY REFERENCE GUIDE
127.05.01	Air Equipment - Not Used
.02	Asphalt Equipment - Not Used
.03	Compaction Equipment - Not Used
.04	Concrete Equipment - Not Used
.05	Crushing Equipment - Not Used
.06	Earth Moving, Grading Equipment
.07	Excavation Equipment
.08	Haulage Equipment - Not Used
.09	Hoisting Equipment - Not Used
.10	Pile Driving Equipment - Not Used
.11	Drilling Equipment
.12	Broom and Sweeper Equipment - Not Used
.13	Forestry Equipment - Not Used
.14	Portable Generating Equipment - Not Used
.15	Pumping Equipment - Not Used
.16	Welding Equipment - Not Used
.17	Traffic Control Devices - Not Used

127.01 SCOPE

This specification covers equipment rental rate compensation for work on a Time and Material Basis. The calculated rate represents the cost of owning and operating the equipment and is made up of direct and indirect costs such as fuel, oil, lubrication, field repairs, overhaul, depreciation, financing, storage, insurance, overhead, and profit.

The rental rates in this schedule are hourly, unless otherwise stated, and do not include the cost of the operator.

The information was compiled from manufacturers, equipment dealers and distributors, and contractors and is based on equipment specifications for standard models, including all necessary attachments to perform the work. Adjustments shall not be made to the rental rate due to optional components that may increase the weight, capacity, or power of a piece of equipment.

Except for Subsection 127.02.09, Hoisting Equipment, the rates listed cover the range of all equipment up to the next highest increment. When a piece of equipment falls in between listed categories, with respect to weight or capacity, the lower rental rate shall apply. For Subsection 127.02.09, Hoisting Equipment, when the size of the equipment falls between the increments shown, the rental rate is to be determined by a straight-line interpolation and rounded to the nearest five cents.

The rental rates reflect the existing tax situations as they pertain to the purchase of equipment at the date of publication.

Section 127.03, Manufacturers' Model, Specification, and Capacity Reference Guide, covers a partial listing of manufacturers' equipment model or specification numbers, with appropriate capacity and power ratings. This guide is provided for reference purposes only to assist in determining the appropriate ratings listed in Section 127.02, Schedule of Rental Rates for Construction Equipment.

The rental rates are reviewed annually; therefore, any errors, omissions, or additional suggestions or amendments should be addressed in writing to:

Head, Estimating Section
Contract Management Office
Ontario Ministry of Transportation
Garden City Tower, 2nd Floor
301 St. Paul Street
St. Catharines, ON L2R 7R4

127.02 SCHEDULE OF RENTAL RATES FOR CONSTRUCTION EQUIPMENT

127.02.01 AIR EQUIPMENT

127.02.01.01 Air Compressor, Silenced

Flow Rate m ³ /min	
3	14.60
5	18.45
7	27.15
10	36.95
17	65.25
25	101.95
45	160.35

127.02.01.02 Air Hammer, Including 15 m Hose, Excluding Points

Weight, kg	
3	1.10
14	1.90
28	2.10

127.02.01.03 Sand Blaster, Including Nozzles and Hoses

Sand Pot Capacity	
Weight, kg	
135	5.70
270	6.35

127.02.02 ASPHALT EQUIPMENT

127.02.02.01 Asphalt Paver

Weight, kg	
2,000	42.70
4,000	57.40
7,000	98.60
9,000	215.00
14,000	258.95
17,000	288.50
20,000	326.30

127.02.02.02 Asphalt Paver Attachment

Mechanical Floating Beam	6.60
Mechanical Grade and Slope Control	15.10
Screed Extension, Bolt On	4.25
Sonic Averaging Ski	7.35
Sonic Grade and Slope Control	14.65

127.02.02.03 Asphalt Distributor With Truck

Tank Volume, litre	
7,000	126.60
11,000	135.65

127.02.02.04 Asphalt Pavement Profiler

Power, kW	
32	107.85
90	158.85
135	266.20
340 *	438.30
590 *	520.30
700 *	594.90

* Excluding teeth

127.02.02.05 Asphalt Pavement Repair Equipment

Equipment Type	
4 kW Pavement Line Grinder	2.80
8 kW Pavement Line Grinder	6.95
Pavement Router	10.55
Hot Air Lance	9.85
Mastic Kettle	29.35

127.02.02.06 Asphalt Material Transfer Vehicle

Without Surge Bin	242.60
With Surge Bin	309.05

127.02.02.07 Profilograph

Equipment Type	
California Profilograph, including trailer	24.70
High Speed, including truck	59.75

127.02.02.08 Linestripper

Equipment Type	
Walk Behind	3.85
Walk Behind Ride-On Attachment	3.25
Skid Mounted	12.50
Ride-On	13.35
400 litre Truck Mounted	88.85
1,000 litre Truck Mounted	112.40
2,000 litre Truck Mounted	133.20
2,000 litre Truck Mounted, including attenuator	148.75

127.02.03 COMPACTION EQUIPMENT

Note: Equipment weights include water ballast, where applicable.

127.02.03.01 Rammer

Minimum Weight, kg

45	4.05
65	4.95
85	5.65

127.02.03.02 Manually Guided, Vibratory Plate

Minimum Weight, kg

65	3.20
100	5.35
160	10.20
280	14.70
390	21.40
500	31.90

127.02.03.03 Hoe Mounted, Vibratory Plate, Hydraulic

Minimum Weight, kg

100	8.90
300	10.55
600	15.20
900	27.60

127.02.03.04 Manually Guided, Self-Propelled, Vibratory, Tandem Drum

Minimum Weight, kg

400	14.15
600	17.20
800	19.10
1,200	38.10

127.02.03.05 Self-Propelled, Vibratory, Single Pad Foot Drum

Minimum Weight, kg

1,000	39.10
4,000	53.80
6,000	72.50
9,200	95.55
13,000	108.35
18,000	118.25

127.02.03.06 Self-Propelled, Vibratory, Single Smooth Drum

Minimum Weight, kg

1,000	37.35
4,000	51.05
6,000	64.90
9,200	87.05
13,000	102.75
18,000	113.65

127.02.03.07 Self-Propelled, Vibratory, Tandem Drum

Minimum Weight, kg

1,000	29.35
3,000	41.90
6,000	78.95
8,000	95.85
10,000	100.25
12,000	107.65

127.02.03.08 Self-Propelled, Static, Tandem Drum

Minimum Weight, kg

1,200	21.35
4,000	34.20
7,000	50.40
10,000	52.85

127.02.03.09 Self-Propelled, Static, Segmented, Four-Wheeled, Two Axles, Including Blade

Minimum Weight, kg

19,000	209.40
30,000	287.70

127.02.03.10 Self-Propelled, Static, Pneumatic Tires

Minimum Weight, kg

8,000	57.25
18,000	91.90

127.02.04 CONCRETE EQUIPMENT

127.02.04.01 Saw, Self-Propelled, Excluding Blades

Power, kW

5	5.15
10	6.10
15	16.35
40	37.40
Ride-On, Vertical Cut	42.40
Ride-On, Horizontal Cut	103.30

127.02.04.02 Saw, Manually Guided, Excluding Blades

Power, kW

3	2.45
5	3.65
10	6.10

127.02.04.03 Slip Form Paver

Power, kW	
10	45.80
30	136.35
70	172.15
120	240.10
200	453.30

127.02.04.04 Concrete Vibrator, Including Flexible Shaft and Electric Motor

Vibrator Diameter, mm	
< 50	0.95
50	1.05

127.02.04.05 Concrete Repair Equipment

Equipment Type	
50 mm Hammer Drill, excluding bits	3.65
Predampener	40.35
Shotcrete Pump, Dry Process	8.50
Shotcrete Pump, Wet Process	69.10
Batch Mixer Pump	39.15

127.02.04.06 Concrete Placing Equipment

Equipment Type	
15 m ³ /hr Concrete Pump, Trailer Mount	33.80
25 m ³ /hr Concrete Pump, Trailer Mount	37.20
35 m ³ /hr Concrete Pump, Trailer Mount	46.95
54 m ³ /hr Concrete Pump, Trailer Mount	102.60
98 m ³ /hr Concrete Pump, Trailer Mount	240.10
17 m Vertical Height, Concrete Pump-Truck Mount	156.35
24 m Vertical Height, Concrete Pump-Truck Mount	269.10
28 m Vertical Height, Concrete Pump-Truck Mount	306.50
33 m Vertical Height, Concrete Pump-Truck Mount	330.50
40 m Vertical Height, Concrete Pump-Truck Mount	415.75
47 m Vertical Height, Concrete Pump-Truck Mount	519.25
Concrete Deck Finisher, Self-Propelled	56.40
Concrete Placer	229.90
Concrete Placer Spreader	392.80
Concrete Texture Curing Machine	79.15
Concrete Conveyor	68.25

127.02.04.07 Hydraulic Breaker, Boom Mounted, Excluding Points

Impact Energy

Joules

200	10.95
400	11.25
900	15.30
1,400	24.70
2,200	36.70
3,300	58.90
4,500	62.75
6,000	67.70
12,000	117.70
20,000	207.65

127.02.05 CRUSHING EQUIPMENT

127.02.05.01 Jaw Crusher, Diesel

Jaw Opening, m

< 1.00	170.70
1.00	198.55
1.15	335.65

127.02.05.02 Cone Crusher, Diesel

Cone Diameter, m

0.90	252.15
1.00	332.10
1.30	399.10

127.02.05.03 Impact Crusher, Diesel

Crusher Size, m

1.0	207.20
1.2	265.65
1.3	379.45

127.02.05.04 Screening Plant, Double Deck, Diesel

Screen Size, m

3	96.30
4	104.30
5	156.25

127.02.05.05 Screening Plant, Triple Deck, Diesel

Screen Size, m

5	136.50
6	224.65

127.02.05.06 Surge Bins and Conveyor, Excluding Power Unit

Bin Volume, m³

7	42.55
10	60.90
20	73.10

127.02.05.07 Stacker, Excluding Power Unit

Conveyor Length, m

12	23.70
18	30.20
24	42.90
30	65.85

127.02.05.08 Telescoping Stackers, Excluding Power Unit

Conveyor Length, m

36	133.75
46	171.40
61	310.10
76	372.80

127.02.05.09 Trommel Screening Plant, Diesel

Drum Diameter, m

1.20	62.80
1.50	89.50
1.80	199.45

127.02.06 EARTH MOVING, GRADING EQUIPMENT

127.02.06.01 Scraper, Single Engine, Two-Wheel Drive

Minimum Struck Capacity, m³

10	223.45
16	290.30

127.02.06.02 Scraper, Twin Engine, Four-Wheel Drive

Minimum Struck Capacity, m³

10	312.40
16	394.15
22	513.55

127.02.06.03 Scraper, Single Engine, Self-Loading

Minimum Struck Capacity, m³

6	141.40
11	273.40

127.02.06.04 Scraper, Pull Type

Volume, m³

6	38.55
9	43.40
13	58.15

127.02.06.05 Tractor Bulldozer, Crawler Type

Minimum Net Flywheel Power, kW

25	41.40
50	54.35
60	63.60
80	95.20
120	123.75
160	175.00
210	238.85
280	327.55

127.02.06.06 Tractor Bulldozer Ripper Attachment, Hydraulic, Rear Mounted

Power, kW

50	9.10
120	12.45
160	21.45
210	23.20
280	34.85

127.02.06.07 Wheeled Tractor, Farm, Industrial, Two-Wheel Drive

Power, kW

10	12.00
25	19.30
40	25.05
50	37.20
70	51.90
90	60.50
120	81.80
160	101.35

127.02.06.08 Wheeled Tractor, Farm, Industrial, Four-Wheel Drive

Power, kW	
10	13.45
25	20.15
40	25.90
50	40.00
70	50.30
90	60.70
110	81.75
135	93.40
150	103.65
180	118.60

127.02.06.09 Motor Grader, Articulated Frame

Minimum Operating Weight, kg	
11,500	86.45
14,000	109.05
15,500	115.70
17,000	120.40
22,000	152.00

127.02.06.10 Motor Grader Ripper or Scarifier Attachment, Hydraulic Mounted

Grader Weight, kg	
11,500 - Grader Ripper	6.30
14,000 - Grader Ripper	6.65
15,500 - Grader Ripper	7.55
17,000 - Grader Ripper	9.35
22,000 - Grader Ripper	13.40
Scarifier - any size grader	5.50

127.02.06.11 Gravel or Chip Spreader, Self-Propelled

Spreader Width, m	
3 - 4	108.80

127.02.06.12 Spreader Attachment

Equipment Type	
Grader/FEL - Shouldering	43.35

127.02.06.13 Shoulder Spreader/Road Widener

Spreader Width, m	
2	133.50
3	180.40

127.02.06.14 Reclaimer/Stabilizer, Excluding Teeth

Equipment Power, kW	
250	240.05
325	296.35
440	338.00
500	460.25

127.02.06.15 Grade Trimmer

Minimum Width, m
3

458.85

127.02.07 EXCAVATION EQUIPMENT

127.02.07.01 Hydraulic Excavator, Crawler Mounted, Long Reach, 12 to 21 m Boom

Minimum Operating Weight, kg

19,500	102.10
23,000	121.40
26,500	131.60
32,000	154.45
44,000	215.05

127.02.07.02 Hydraulic Excavator, Crawler Mounted

Minimum Operating Weight, kg

1,000	19.95
4,000	28.45
6,000	44.80
12,000	77.55
19,500	92.80
23,000	100.60
26,500	126.00
32,000	150.35
44,000	204.85
55,000	298.90
70,000	318.90
100,000	423.10

127.02.07.03 Hydraulic Excavator, Rubber Tired

Minimum Operating Weight, kg

11,000	97.35
18,000	113.65
21,000	129.30

127.02.07.04 Hydraulic Excavator, Bucket Attachment, Wrist Action

Minimum Carrier Weight, kg

4,000	5.15
9,000	6.30
13,000	9.60
18,000	12.60

127.02.07.05 Telescopic Boom, Carrier Mounted Excavator

Weight, kg

15,000	164.30
20,000	171.15
22,000	198.70

127.02.07.06 Telescopic Boom, Crawler Mounted Excavator

Weight, kg	
17,000	110.65
20,000	116.35
23,000	136.05

127.02.07.07 Tractor with Loader/Backhoe Combination, Two-Wheel Drive

Minimum Power, kW	
45	38.60
60	45.25
75	57.80
94	85.40

127.02.07.08 Tractor with Loader/Backhoe Combination, Four-Wheel Drive

Minimum Power, kW	
30	29.35
45	44.10
65	47.95
80	59.80
94	83.25

127.02.07.09 Tractor with Loader/Backhoe Combination Attachments

Attachment Type	
300 mm Auger	3.25
Jaw Bucket	6.30
For Hydraulic Ram Hoe Attachments, see 127.02.03.03	

127.02.07.10 Front End Loader, Crawler Mounted

Power, kW	
50	60.10
70	93.90
100	115.75
150	169.80

127.02.07.11 Front End Loader, Rubber Tire, Four-Wheel Drive

Power, kW	
40	43.40
75	64.40
100	78.50
125	86.10
150	108.00
175	115.25
200	140.25
225	158.60
250	169.60
300	294.30
400	357.15

127.02.07.12 Skid Steer Loader, Rubber Tire

Lift Capacity, kg	
300	25.60
700	28.80
850	31.25
1,000	36.00
1,200	38.00
2,500	41.60

127.02.07.13 Skid Steer Loader, Tracked

Lift Capacity, kg	
900	33.65
1,100	34.20
1,300	37.35
1,600	40.15
1,800	41.70

127.02.07.14 Skid Steer Loader, Attachments

Attachment Type	
Auger	2.80
Backhoe	4.20
Breaker	12.40
Cold Planer	9.60
Multi Bucket	4.50
Pick Up Broom	6.70
Power Rake	5.95
Scarifier	3.65
Steel Tracks	1.75
Sweeper, Angle Broom	6.25
Trencher	2.10

127.02.07.15 Chain Type Trenching Equipment

Power, kW	
13	16.25
20	29.60
35	41.55
50	74.15

127.02.08 HAULAGE EQUIPMENT

127.02.08.01 Tag Along Trailer

Load Capacity, kg	
2,000	2.90
3,000	4.80
9,000	9.20
16,000	12.90
19,000	15.25

127.02.08.02	Rigid Gooseneck Float With Tractor	
Load Capacity, kg		
20,000		118.00
40,000		123.15
127.02.08.03	Detachable Gooseneck Float With Tractor	
Load Capacity, kg		
30,000		120.60
45,000		124.90
127.02.08.04	Pickup, Two-Wheel Drive	
Pickup Type		
Mini Type		16.90
2,600 kg GVW		29.00
3,800 kg GVW		34.85
4,500 kg GVW		35.25
127.02.08.05	Pickup, Four-Wheel Drive	
Pickup Type		
Mini Type		20.75
2,600 kg GVW		30.30
3,800 kg GVW		35.40
4,500 kg GVW		37.70
127.02.08.06	Rear Dump, Single Rear Axle, Diesel or Gas	
AGW, kg		
5,000		61.80
12,000		68.80
127.02.08.07	Rear Dump, Tandem Rear Axle, Diesel or Gas	
AGW, kg		
24,000		91.90
127.02.08.08	Rear Dump, Tri-Axle, Diesel	
AGW, kg		
32,000		111.45
32,000 kg Stone Spreader		123.95
127.02.08.09	Tractor, On Highway, Diesel	
Tandem Axle		104.30
127.02.08.10	Trailers, Rear Dump	
Axle Configuration		
Pony/Pup		43.10
Tri		48.30
Quad		57.50
Quint		64.75

127.02.08.11	Trailers, Live Bottom	
Axle Configuration		
Tandem		44.55
Tri		50.75
Quad		54.35
Quint		59.30
127.02.08.12	Water Truck, Single Rear Axle	
Spray Bar Type		
Gravity / Pressure		80.35
127.02.08.13	Water Truck, Tandem Rear Axle	
Spray Bar Type		
Pressure		98.20
127.02.08.14	Dump Trucks, Off Highway, Rigid Frame	
Payload, kg		
35,000		226.10
38,000		250.20
50,000		318.00
75,000		435.55
127.02.08.15	Dump Trucks, Off Highway, Articulated Frame	
Payload, kg		
20,000		159.35
26,000		179.30
30,000		219.95
35,000		244.75
40,000		300.90
127.02.09	HOISTING EQUIPMENT	
127.02.09.01	Boom Truck	
Lift Capacity, kg		
7,000		144.60
11,000		190.65
19,000		205.40
25,000		233.00
127.02.09.02	Hydraulic Crane, Rough Terrain	
Lift Capacity, kg		
13,000		79.95
20,000		133.80
40,000		171.95
65,000		233.55
100,000		334.20

127.02.09.03 Hydraulic Crane, Carrier Mounted

Lift Capacity, kg

25,000	198.75
45,000	258.10
60,000	274.20
90,000	412.45
135,000	591.25
200,000	643.60

127.02.09.04 Lattice Boom Crane, Crawler Mounted

Lift Capacity, kg

50,000	216.95
70,000	263.85
90,000	359.70
130,000	432.80
200,000	605.90
250,000	706.40

127.02.09.05 Lattice Boom Crane, Carrier Mounted

Lift Capacity, kg

110,000	455.05
270,000	620.45

127.02.09.06 Aerial Bucket Lift, Truck Mounted, Including Truck

Platform Height, m

7.0	76.75
10.0	97.65
15.0	114.70
20.0	139.50

127.02.09.07 Aerial Bucket Lift, Self-Propelled, Telescopic/Articulating

Platform Height, m

9.0	36.80
12.0	51.35
18.0	59.85
22.0	94.00
30.0	130.35

127.02.09.08 Scissor Lift, Self-Propelled

Platform Height, m

4.0	9.60
7.0	24.40
9.0	36.95

127.02.09.09 Tool Carrier

Power Rating, kW

40	50.85
75	59.70
100	72.70
125	92.15

127.02.09.10 Telescopic Handlers

Lifting Height, m

5	48.60
10	71.04

127.02.10 PILE DRIVING EQUIPMENT

127.02.10.01 Hammer, Open End, Diesel

Rated Energy, joules

50,000	42.90
80,000	65.35
120,000	80.30

**127.02.10.02 Driver/Extractor, Vibratory Centrifugal, Including Power Pack,
Excluding Crane**

Driving Force, kN

245	69.05
392	85.05
637	108.15
980	154.60
1,471	189.60

127.02.10.03 Leads, Including Hydraulics and Kicker

Length, m

20, Fixed/Vertical	69.90
20, Hanging	20.90
24, Fixed/Vertical	73.65
24, Hanging	24.55
30, Fixed/Vertical	77.85
30, Hanging	29.45

127.02.10.04 Hydraulic Post Driver

Track Mounted	54.00
Truck Mounted	137.45

127.02.10.05 Universal Piling Machine, Including Attachment

Power Rating, kW

< 450	358.10
450	613.60
570	828.10

127.02.11 DRILLING EQUIPMENT

Note: Use Manufacturer's Model, Specification, and Capacity tables to determine power rating for hydraulically driven rotary drilling equipment.

127.02.11.01 Mechanical Drilling Equipment, Truck Mounted, Including Auger and Crowd and Power Pack

Power, kW

80	166.50
120	318.15

127.02.11.02 Mechanical Drilling Equipment, Crawler Mounted, Including Auger

Power, kW

95	161.75
113	229.00
130	283.45

127.02.11.03 Hydraulic Drill Rig

Power, kW

185	452.90
250	645.55
350	710.60
430	873.65
570	1157.60
Additional Casing/Liner	5.20/metre

Note: Base rate includes initial casing up to 20 m, teeth, and auger. Replacement auger teeth not included.

127.02.11.04 Mechanical Drilling Equipment, Crane Mounted Attachment, Including Auger

Power, kW

110	98.15
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127.02.11.05 Horizontal Earth Boring Equipment

Power Rating, kW

20	38.30
50	71.50
100	117.10
200	215.50

127.02.11.06 Trenchless Directional Drill, Track Mounted

Operating Weight, kg

1,000	84.10
7,000	198.60
12,000	256.10
20,000	307.70

127.02.11.07 Hydraulic Rock Drill, Including Power Pack, Excluding Drill Steel and Bits

Diameter, mm

< 75	69.25
75	201.90
125	228.40
150	293.90

127.02.11.08 Tieback Drill Rig, Hydraulic, Dual Head

Power, kW

< 140	175.05
140	260.75

Additional Casing 1.25/metre

* Base rate includes initial casing, drilling, augering components up to 20 m.

127.02.12 BROOM AND SWEEPER EQUIPMENT**127.02.12.01 Front Mounted Attachment, Hydraulic**

Broom Width, m

1.2	7.90
1.8	9.45
2.4	14.70

127.02.12.02 Self-Propelled, Dual Control

Sweeper Type

Bottom Dump	92.20
High Dump	109.30
Vacuum	112.95

127.02.13 FORESTRY EQUIPMENT**127.02.13.01 Brush Chipper, Tow Type**

Minimum Net Flywheel Power, kW

19	20.25
35	28.30
60	35.95
80	46.75
140	83.70

127.02.13.02 Log Skidder, Cable/Grapple

Minimum Net Flywheel Power, kW

75	132.60
120	177.00
150	185.05

127.02.13.03 Chain Saw

Power, kW

1	1.70
3	2.90
5	4.50

127.02.14 PORTABLE GENERATING EQUIPMENT

127.02.14.01 Generator, Gas or Diesel

Power, kW

0.5, Air Cooled, Gasoline	1.65
3, Air Cooled, Gasoline	2.75
5, Air Cooled, Gasoline	3.65
10, Air Cooled, Diesel	14.75
40, Water Cooled, Diesel	26.55
80, Water Cooled, Diesel	50.60
150, Water Cooled, Diesel	79.20
250, Water Cooled, Diesel	107.70
300, Water Cooled, Diesel	135.50
400, Water Cooled, Diesel	173.10
600, Water Cooled, Diesel	262.30
910, Water Cooled, Diesel	331.20

127.02.15 PUMPING EQUIPMENT

127.02.15.01 Centrifugal, Dewatering, Including 6 m Suction and 7.5 m Discharge

Intake Size, mm

25, Air Cooled, gasoline	2.40
50, Air Cooled, gasoline	2.55
100, Air Cooled, gasoline	3.55

127.02.15.02 Centrifugal, Trash, Including 6 m Suction and 7.5 m Discharge

Intake Size, mm

50	2.90
75	3.85
100	9.90
150	26.10
200	52.35

127.02.15.03 Diaphragm, Including 6 m Suction and 7.5 m Discharge

Intake Size, mm

50, Air Cooled, gasoline	4.20
75, Air Cooled, gasoline	4.80
100, Air Cooled, gasoline	17.95

**127.02.15.04 Electric Submersible, Including 30 m Cable and 7.5 m Discharge,
Excluding Generator**

Intake Diameter, mm

50	2.25
100	5.05
150	15.80
200	23.25

127.02.16 WELDING EQUIPMENT

127.02.16.01 DC Arc Welder, Engine Driven, Including Rods

Current, A

125	3.05
150	3.80
200	6.00
300	7.80
400	13.20

127.02.16.02 Oxygen/Acetylene Torch, Including Gas, Excluding Rods

Equipment Type

Hand Mobile, Heavy Duty	24.25
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127.02.17 TRAFFIC CONTROL DEVICES

127.02.17.01 Portable Variable Message Signs

Equipment Type

Trailer Mounted, Solar	8.90
Truck Mounted	4.85

127.02.17.02 Buffer Vehicles, Including Arrow Board and Attenuator

Equipment Type

Crash Truck	71.95
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127.02.17.03 Traffic Barrels

Each Per Day	1.00
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127.02.17.04 Portable Light Towers, Trailer Mounted

Extended Tower Height, m	
9	16.95

127.02.18 MISCELLANEOUS EQUIPMENT

127.02.18.01 Hydro Excavation Equipment

Hydro Excavating / Vacuum Truck	
Single Axle	187.65
Tandem Axle	212.00
Tri Axle	226.95

Note: Each table has a number in parentheses as part of the table title that refers to the corresponding clause in Section 2 - Schedule of Rental Rates for Construction Equipment.

Air Compressor, Silenced (127.02.01.01)

CLASSIFIER	MAKE AND MODEL						
Flow Rate m ³ /min	Atlas Copco	Chicago Pneumatic s	Doosan and Ingersoll-Rand	Grimmer- Schmidt	Kaeser	Multiquip	Sullair
3	XA57 XASTS67 Hardhat XATS67 XAS67KD XATS67 Hardhat XAS77 XAS77 Hardhat	CPS 90	P-100WD P-130WD P-110WIR P-135WIR AIRSOURCE	125 150 H100G 125G OEM 125G			125
5	XAS97 XAHS106 XATS116 XAS185 XAST250KD7	CPS 185 CPS185KD	P-185WJD P-185WIR XP185WIR AIRSOURCE Plus IR AIRSOURCE Plus JD	175 185D 185E 185J 210D 210J H185D H210D H130E	M50 M57 M58	DIS185SSi4F	185
7	XAS126 XA(S)136 XAHS146 XATS300KD7		P-250WJD P-260WIR VHP300WIR	250 250D H300D			250 260
10	XATS156 XAHS186 XA(S)186 XATS400	CPS 375	P-375WCU P-600WCU XP375WIR HP375WIR VHP400WIR P425WIR HP450WIR	375 375D	M100 M114		375 375H 425
17	XAMS286 XAHS336 XAMS356 XRHS366 XATS750	CPS750 CPS750 CD3	P-750WJD P-600WIR XP675WCU XHP700WCAT XP750WCU HP750WCU VHP750WCAT MHP825WCAT XP825WCU MHP825WCU	800 800D			750
25	XAHS426 XRVS366 XAMS496 XRHS486 XAHS536 XAMS546 XATS1050		HP900WCAT HP915WCU HP1300WCU XP1200WCU	900			1050
45	XATS1800		P-1600WCU				

Sand Blaster, Including Nozzles and Hoses (127.02.01.03)

CLASSIFIER	MAKE AND MODEL					
Weight kg	Canablast	Clemco	Empire	Lindsay	Marco	Schmidt
135	340 P	4.0 6.0 1042 1642 1648	P-350 350 Super Blast 350 Super Blast 350 XL	300LAD	1.5 1.5 Portable 3.5 M Portable	4
270	640 P	21505 21545 2452	P-650 650 Super Blast 650 Super Blast 650 XL P-1050	600LAD	6.5 M Portable	7

127.03.02

ASPHALT EQUIPMENT

Asphalt Paver (127.02.02.01)

CLASSIFIER	MAKE AND MODEL											
Weight kg	ABG	Barber- Greene	Volvo (Blaw- Knox)	Caterpillar	Cedarapids/ Bomag	Gehl	Gilcrest	Ingersoll- Rand	Lee Boy	Mauldin	Roadtec	Vogele/ Wirtgen
2,000			M-450 PF-545			1448 1649				550E		
4,000			PF-150 PF-840 PF-855 PF-875 3120	AP255E		1648	813 814			690F 1500SP 1550-C		Super 700
7,000				P385	BSF-330			650P 660W 580W		1750C		Super 1300-3 Super 1303-3
9,000		BG- 210B	PF-120H PF-161 PF-171 PF-172 PF-400		CR351 CR352 CR361			780T 880TD 780W	8500			AP780WB AP880RTB
14,000			PF-2181 PF-3172 PF-3200 PF-4410	AP500E AP555E AP650B AP800C AP900 BG225C BG230	352 362S 362 CR 361R CR 451 CR 362							AP880WB Vision 5103-2 Vision 5100-2
17,000			PF-5500 PF-5510 PF-6160 PF-6170	AP655C AP900B AP1000B AP1050B BG240C BG245C BG260C BG2455C AP600D AP655D AP1000E	452 462S 462 552 562S CR 461R CR 461RX CR551 CR552 CR 561R CR 452 CR 462						RP-170 RP-175	AP1010WB AP1110WB Vision 5203-2 Vision 5200-2
20,000	325EPM 423		PF6110 PF6160 PF6170 PF7110 PF7170	AP1055B AP1055D AP1055E	562 CR652RX CR562 CR662RM						RP-190e RP-195e RP-2505 SP-200e	AP1110RTB Super 2100-3

Asphalt Distributor With Truck (127.02.02.03)

CLASSIFIER	MAKE AND MODEL		
Tank Volume L	Bearcat	E. D. Etnyre	Rosco
7,000	BC-501/CRC *	Shooter 1665 Centennial 2000	
11,000	BC-501/CRC *	Centennial 2500 Centennial 3000 Centennial 3500	Maximizer 3 Maximizer 11

* Equipment available in 7,000+ and 11,000+ tank capacities.

Asphalt Pavement Profiler (127.02.02.04)

CLASSIFIER	MAKE AND MODEL					
Power kW	Bomag	Caterpillar	Roadtec	Terex	Volvo	Wirtgen Inc.
32						W35 W50 W35DC
90	BM 500/15 BM 600/15				MW500	W600DC W1000L W50DCi
135	BM 1000/30 BM 1200/30 BM 1300/30	PM102	RX-400e			1000F 1000 W100Fi W130Fi W150i W100i W60i
340	BM 2000/60	PM 200 PM 201 *	RX500 RX700 RX-600e RX-700e	PR600	MT2000	W1900 W2000 W200i W210i W220
590		PM 201 *		PR800-7 PR860		W2200
700			RX-900e	PR950		W250i

* May be either capacity depending on equipment year of manufacture.

Asphalt Pavement Repair Equipment (127.02.02.05)

CLASSIFIER	MAKE AND MODEL		
Equipment Type	Bartell	Edco	Hoffman
4 kW Pavement Line Grinder	SP 8 SP8-G1	CPM-4	
8 kW Pavement Line Grinder	BGG10	TLR-7 CPM-10 CPU-10FC	H92

Asphalt Material Transfer Vehicle (127.02.02.06)

CLASSIFIER	MAKE AND MODEL			
Equipment Type	Ingersoll-Rand	Roadtec	Terex	Weiler
No Surge Bin		MTV-1000C MTV-1000D		E1250
Surge Bin	MC 330	SB 2500 SB-1500D SB-2500e	CR 662	E2850

127.03.03 COMPACTION EQUIPMENT**Rammer (127.02.03.01)**

CLASSIFIER	MAKE AND MODEL							
Min. Weight kg	Bomag	Chicago Pneumatics	Dynapac	Ingersoll- Rand	Multi-Quip / Mikasa	Vibromax	Wacker	Weber
45	BS 600 BT 50 BT 58 BT 60 BT 60/4	MS590 MS595		RX-55 RX-554	MT 55F MT 62HS MTR 40 MTR 40 SF MTR 50 MTR 60L MTX 60 MTX 60 HD MTX 60 SD	SL 1B VM1	BS 45 Y BS 50-2 BS 50-2i BS 50-4s BS 52 Y BS 60 Y BS 500 BS 600 ES 52 Y	SRV 590 HO SRV 600i
65	BS 720 BT 68 BT 65 BT 65-4	MS690 MS695 MS780	LC 50 LC 70	RX-65 RX-75 RX-654 RX-654H RX-754 RX-754H	MT 65H MT 70 MT 74F MT 75HS MT 76D MT 85HS MTX 70 MTX 70 HD MTX 70 SD MTX 80 MTX 80 SD	SL 2B VM2	BS 60-2i BS 60-4i BS 60-4s BS 62 Y BS 70-2i BS 700 DS 70 DS 72 Y	SRV 620 SRV 620 HO SRV 650 SRV 660 SRX 75 DH
85		MS840			MT 86D MTR 80L MTX 90		BS 100 Y BS 105 Y DS 70 H	

Manually Guided, Vibratory Plate (127.02.03.02)

CLASSIFIER	MAKE AND MODEL							
Min. Weight kg	Bomag	Chicago Pneumatics	Dynapac	Ingersoll- Rand	Multi-Quip / Mikasa	Vibromax	Wacker	Weber
65	BP 10/36 BP 10/36-2 BP 15/45 BP 18-45-2	KMR11 LF82 MV82 MV90 Asphalt MV100	LG 140	BX-6WH BX-8 BX-8WH BXR-7	MT-85HS MVC 64VH MVC 64VHW MVC 64XH MVC 77 MVC 82VH MVC 82VHW MVC-88GHW MVC 88VTH MVC-90H MVC 90L MXC 82VH	AT 8 AV 600 AV 601 AV 900 AV 901	VP 1135AW VP 1340 VP 1340A VP 1340W VP 1550 VP 1550A VP 1550AW VPA 1740 VPG 165A VPR 1330 VPY 1740 WP 1540 WP 1540A WP 1550 WP 1550A WP 1550V	CF1i CF1 PRO CF2 HO CF2i CF2 PRO CF2 PRO S CF3 PRO
100	BPR 25/32 BPR 25/40	MV100 MV100 Asphalt MV100 A MV115 Asphalt MV115 D MV135 MV140	LG 450	BX-12 BX-12WH	MVC 88VTHW MVC 110 MVC 135G MVH 120VGH MVH 150VGH MVH-R120GH MVH-R150GH	AV 1300B AV 22B 12	BPS 2550A BPS 2550R BPU 2440A BPU 2540A BPU2540AW DPU 2430 VP 2050 VP 2050A VP 2050Y VPA 1350W VPY 1770	CR1 HO CR2 HO
160	BPR 30/38 BPR 30/38D BPR 35/60D	MV165 MV170 MV220 MV245 MV305			MVH 150D MVH 200D MVH 200G MVH 200GH MVH 206GH	15 25	BPU 2950A BPU 3050A BPU 3750A DPU 2950 DPU 3050H DPU 3750A DPU 3750H	CR3 D CR3 E CR3 HO CR5 HO VPR 700
280	BPR 45/45	MV320 ~~MV400~~			MVH-304DSB MVH-304GHB MHV306GH MVH308GH MVH308DZ MVH408GH	35	BPU 3345A BPU 4045A BPU 5045A BPU 5545A DPU 4045H DPU4545H DPU 5045H	CR5 E
390	BPR 55/52D	MV400 MV430			MVH-402DSB MVH-402GHB MVH 406GH MVH 408DZ		CPU 4545He DPU5545 DPU 5545He DPU 6055 DPU 6055H DPU 6555He	CR5 HO CR6 CR6 CCD CR6 CCD 2.0 CR6 MDM CR6 MSM CR7 CR7 CCD CR7 CCD 2.0 CR7 E CR7 HO CR7 MDM CR7 MSM
500	BPH 80/65S BPR 65/52D-3 BPR 100/80D	MV480 MV500			MVH-502DSB MVH 508DZ MVH-702DSRC	45	DPU 100-70 DPU 100-70Les DPU 130 DPU 7060 DPU 7060H DPU 7060RC	CR8 CR8 CCD CR8 CCD 2.0 CR8 E CR8 MDM CR8 MSM CR9 CCD CR9 CCD 2.0 CR9 E

Hoe Mounted, Vibratory Plate, Hydraulic (127.02.03.03)

CLASSIFIER	MAKE AND MODEL								
Min. Weight kg	Allied	Balderson	BTI (Formerly Teledyne)	Chicago Pneumatics	Kent	NPK	Rammer	Stanley	Tramac
100	300 500 4700 400B 700B			RC103	KHP 30 KHP 35	C-2 C2C C-2D	RP 10	HS 2500 HS 3000	TR-6 TR-7S TR-8
300	1000 1000B 8700C NT 8900	B4 B4S	TC-90S TC-91S TC-92V	CR308 RC409	KHP-12 KHP 65	C-4B C-4C C-3D	RP 20	HS 6000 HS 8000	TR-4S TR-9 TR-14
600	1600 9700C	B6 B6S	TC-151S TC-152V	RC920	KHP-25 KHP 135	C-6 C-6C		HS 11000	TR-21
900	9800 9801 2300	B8	TC-150S TC-301 TC-302V	RC2040 RC2041	KHP 210-11	C-8 C-8C C-10C C-12 C-12C	RP 40 RP 50	HS 20000 HS 22000	TR-40 TR-40M

Manually Guided, Self-Propelled, Vibratory, Tandem Drum (127.02.03.04)

CLASSIFIER	MAKE AND MODEL										
Min. Weight kg	Altrad Belle	APT	Bomag	Chicago Pneumatic s	Dynapac	Ingersoll- Rand	Mikasa	Multi-Quip	Vib- romax 2000	Weber MT	Wacker
400			BW 35 BW 65S BW 71E			DX-500E	V304 EH V304 EY	MRH601GS	W 50		RS 800A RS 800H RSS800A DPU5545
600	BWR650		BW 60HD BW 65S BW 65S-2 BW65 HD/E	MR7000	LP 650	DX-60 DX-70 DX-70E DX-600E	MR 8D MR 8G	MRH600GS MRH800DS2 MRH800GS	W 70		W 55T W 65T W 74A
800			BW 60S BW 65H BW 75S BW 75S-2		LP 750		MDR 9D MDR 9G MRH 800DS MRH 800GS				RD 7H RD7 RD 11 W 74T WH 74
1,200		WR85	BW 75AD-2 BW 90S BW 85T BMP 8500	TR630 TR850		FX-130	MRV 10G MRV 15 P 3324	RX1510C24 RX1510CI33 RX1575		TRC86 TRC88	RD 15H RT 560 RT 820

Self-Propelled, Vibratory, Single Pad Foot Drum (127.02.03.05)

CLASSIFIER	MAKE AND MODEL									
Min. Weight kg	Bomag	Case	Caterpillar	Dynapac	Hamm	Hypac	Multi- Quip	Super Pac	Vibromax	Volvo / Ingersoll- Rand
1,000	BW 124PD BW 124PDH-3 BW 124PDH40			A36PD A40PD		C812C	P35K P48K P54K	540P 4010P		SD-25F
4,000	BW 142PD-2 BW 145PDH-3 BW 145PDH-5		CP-323C CP-34	CA121PD CA141PD CA121PD-PDB CA141PD-PDB	3205P	C822C		540P 600P 540PC	405-PD	SD-40F SD-45F SD-45
6,000	BW 172PD2 BW 177PDH-3 BW 177PDH-40 BW 177PDH-5	SV 210 SV 208	CP-433C CP-433E CP-44	CA151PD CA152PD	2322 DS 3307P	C832C		6620P	602B-PD 605-PD	SD-70F SD-75F SD-75 SD-77F
9,200	BW 211PDH-3 BW 213PDH-3 BW 213PDH-40 BW 213PDH-4i	SV 212	CP-56 CP-563C CP-563E CP54B CP56B	CA250PD CA252PD CA262PD CA301PD CA302PD	2422-D 3412P	C842C C852C		840P 8410P 8420P	1102-PD	SD-100F SD-105F SD-115F SD-115D4 SD-116F
13,000	BW 218PD BW 213PDH-5	SV 216	CP-64 CP-76 CP-583 CP-68B CP-74B	CA302PD(2003) CA362PD CA512PD CA551PD CA602PD	2522-DS			8430P	1105-PD 1402-PD 1405-PD	SD-150F SD-160F SD-160
18,000	BW 219DH-5			CA602PD	3520P			8430P	1805-PD	SD-175F SD-180F SD-200F SD-200

Self-Propelled, Vibratory, Single Smooth Drum (127.02.03.06)

CLASSIFIER	MAKE AND MODEL									
Min. Weight kg	Bomag	Case	Caterpillar	Dynapac	Hamm	Hypac	Multi- Quip	Super Pac	Vibromax	Volvo / Ingersoll- Rand
1,000	BW 122D BW 124D BW 124DH-S BW 124DH-40					C815C	S35K S48K	A300V 540 4010		SD-25D
4,000	BW 142D-2 BW 145D-3 BW145DH-5		CS-323 C CS-34	CA 121D CA 141D	2220 D	C820C C825C		540 (2003) 600	405-D	SD-40 SD-40D SD-45D SD-45
6,000	BW 172D-2 BW 177D-3 BW 177DH40 BW 177DH-5	SV208D SV280 SV210	CS-423 E CS-431 B CS 433 C CS 433 E CS-44	CA 150D CA 151D CA 152D	2320 D 3307	C830C C835C		6620	602B-D 605-D	SD-70 SD-70D SD- 75D SD-75 SD-77DX
9,200	BW 211D-3 BW 213D-3 BW 213DH-3 BW 213DH40 BW 213DH-4i	SV212	CS-54 CS-54B CS-56 CS-56B CS-563 C	CA 250D CA 251D CA 252D CA 262D CA 320D	2420 D 3412	C840C C850C C855C		8410 8420 840	1102-D 1105-D	SD-100 SD-100D SD-115 SD-115 D4 SD-105DX SD-116DX
13,000	BW 217D BW 213DH-5	SV216	CS-573 E CS-583 C CS-583 E CS-64 CS-68B CS-74 CS-74B CS-76	CA 302D CA 362D CA 511D CA 512D	2520-D			8430	1402-D 1405-D	SD-150 SD-150D SD-160 SD-160DX
18,000	BW 219DH-3 BW 219DK-4 BW 219DH-5		CS-78B	CA 620D	3520				1805-D	SD-175 SD-180 SD-200DX SD-200F SD-200

Self-Propelled, Vibratory, Tandem Drum (127.02.03.07)

CLASSIFIER		MAKE AND MODEL										
Drum Width m	Min. Weight kg	Bomag	Case	Caterpillar	Dynapac	Hamm	Hypac	Ingersoll-Rand	Multi-Quip	Vibromax 2000	Wacker	Volvo (Super Pac)
0.75	1,000	BW 80AD-2 BW 90AD BW 100SL-5 BW 120SL-5 BW120AD-5 BW 120AD-2 BW 120AD-3 BW 80D BW 120	DV201 DV201 DV23 DV26	CB-14 CB-14B CB-214B,C CB-214D CB-22 CB-24 CB-224B,C CB-224D CB-225D	CC 102 CC 122 LA 75 2100V	HD 10 HD 12		DD-22 DD-24 DD-28HF DD-30	AR13G AB13D	102252 255265	RD 11A RD 11V RD12A-90 RD16-90 RD 25 WHK90L WHK4080 WHK5010	A421 A471 DD14S DD25
1.30	3,000	BW 130AD BW 135AD-5 BW 137AD BW 138AD-5 BW 138AD	DV36 DV45	CB-334D CB-335D CB-32 CB-34	CC 142	DV 3 * HD 13	C 754A C 754B C330B-3 ton C330B-5 ton	DD-32 DD-38HF		W 355 W 365 W 455 W 465 752C		DD38
1.40	6,000	BW 141AD-2 BW 141AD-5 BW 144AD-2 BW 151AD-2 BW 151AD-5	DV207	CB-434 CB-434C CB-434D	CC 211 CC 221 CC 222	DV 6 HD 70HV HD 75HV	C760C C340C-8 ton C340C-10 ton C350D-12 ton	DD-65 DD-70				DD70 DD70-HF
1.67	8,000	BW 161AD BW 161AD-2 BW 161ADS BW 164AD BW 161AD-5HF BW 174AP-4AM BW 174AP-4		CB-534B CB-44B	CC 232	DV 8 HD 85 HD 85-C HD 110HV	C766B C766C C350D-14ton	DD-90		W 752B		DD90
1.67	10,000	BW 180AD BW 190AD-AM BW 202AD BW 202ADH-2	DV210 DV210C	CB-534D CB-634 CB-54 CB-54	CC 421 CC 422H F CC 522H F CC 722	DV 10 HD 110HV HD 130HV	C778B	DD-110 DD-130				

1.67	12,000	BW 184AD BW 284AD BW 205 BW 206AD-5	DV21 3	CB-64 CB- 634D CB-63	CC 432 CC 622	HD 130HV	C784					DD118- HF DD112- HF DD132- HF DD138- HFA
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* Hamm DV 3 Drum Width 1.10 m.

Self-Propelled, Static, Tandem Drum (127.02.03.08)

CLASSIFIER	MAKE AND MODEL					
Min. Weight kg	Bomag / Hypac	Dynapac	Lee Boy	Superpac	Volvo / Ingersoll-Rand	Weiler
1,200		2100	300	320		
4,000	BW 5AS BW 9AS BW 9ASW C 330B	CS 06T				
7,000	BW 11AS C 340C	CS 08T CS 10T			ST 60 ST 75	C307
10,000	C 350D	CS 12T CS 14T			ST 80 ST 105	C310

Self-Propelled, Static, Segmented, Four-Wheeled, Two Axles, Including Blade (127.02.03.09)

CLASSIFIER	MAKE AND MODEL		
Min. Weight kg	Bomag	Caterpillar	
19,000	BC 462EB BC 572RB-2	815 F 815 F Series 2	
30,000	BC 672RB-2 BC 772EB-4 BC 772RB-2	825 C 825 H 825 K	

Self-Propelled, Static, Pneumatic Tires (127.02.03.10)

CLASSIFIER	MAKE AND MODEL						
Min. Weight kg	Bomag	Case	Caterpillar	Dynapac	Hamm	Hypac	Volvo/ Ingersoll- Rand
8,000	BW 11RH (4+5)		CW 14 PS 110 (5+6) PS 130 (5+4) PS 150B (5+6) PS 180 (5+4)	CP 141 CP 142 (5+4) CP 15 (4+5)	GRW 5 (5+4)	C 530A C 530AH C 560B (5+4)	PT 140A (5+4) PT 125R (4+5) PT 124R

18,000	BW 20R (4+4) BW 24R BH 24RH BW 27RH	PT 240R	CW 34 PF 300B PS 200B (5+4) PS 300B (3+4) PS 360C	CP 21 (3+4) CP 221 (3+4) CP 22 (4+3) CP 27 CP 271 (5+4) CP 301 (5+4)	GRW 10 (4+4) GRW 15 (4+4) GRW 18 (4+4) GRW 35 (4+4)		
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127.03.04 CONCRETE EQUIPMENT

Slip Form Paver (127.02.04.03)

CLASSIFIER	MAKE AND MODEL							
Power Kw	Curb Fox	Gomaco Corp.	Guntert and Zimmerman	Huron Mfg./ Overbuilt Paving and Mining	Miller Formless	Power Curbers	Rexcon	Terex Road Building
10	2000 3000 5000 5000-T	Curb Cadet		Easi-Pour 570		150 Extruder 440XL		
30		GT 3200 Commander II		Easi-Pour 650B				
70		GT 3400 GT 3600 GT 6000 GT 6300 4400 5700C		Easy Pour 880	M-1000 M-8100	5700C		
120		GP 2400 Commander III	S600	Easi-Pour 1000	M-8800	SF-2700 SF-3000 SF-1700		SF2204C
200		GP 2600 GP 4000 GHP 2800	S850 S1500				Town and Country	SF3502B SF3504B

Concrete Placing Equipment (127.02.04.06)

CLASSIFIER	MAKE AND MODEL						
Equipment Type	Gomaco Corp.	Guntert and Zimmerman	Heavy Equipment Mfg.	Power Pavers	Rexcon	Terex Bidwell	Terex Road Building
Concrete Deck Finisher	450 750 1750					2450 3600 4800	
Concrete Placer Spreader	RPT-500 PS 2600 PS 4000		MP 2500 PS 1230	PS-2700 PS-3000	Town and Country #1	PS3502	PS 3502 PS 6004
Concrete Texture Curing Machine	T/C-600 T/C-400B T/C-400	TC 850		TC-2700	2600	TC-360 TC3600M	
Concrete Conveyor	RC/Conveyor RC/Conveyor (wider)						

Scraper, Single Engine, Two-Wheel Drive (127.02.06.01)

CLASSIFIER	MAKE AND MODEL		
Min. Struck Capacity m ³	Caterpillar	Fiat-Allis	Terex
10	611 621F 621G 621H 621K	260B	
16	631E 631G 651E		S-24C

Scraper, Twin Engine, Four-Wheel Drive (127.02.06.02)

CLASSIFIER	MAKE AND MODEL		
Min. Struck Capacity m ³	Caterpillar	Fiat-Allis	Terex
10	627F 627G 627H 627K	262-B	TS-14C TS-14D TS-14G
16	637E 637G 657E 671E		TS-24C
22	657G		

Scraper, Single Engine, Self-Loading (127.02.06.03)

CLASSIFIER	MAKE AND MODEL			
Min. Struck Capacity m ³	Caterpillar	Fiat-Allis	John Deere	Terex
6	613C 613C SII 613G		JD 762B	S17E
11	615C 615C SII 623F 623G 623H 623K	161	JD 862B	

Scraper, Pull Type (127.02.06.04)

CLASSIFIER	MAKE AND MODEL			
Volume m ³	Bron	Caterpillar	John Deere	Reynolds
6			1512C 1512E	12C10 14CS10 12E10 12.5E12 14E10.5 15.5E14 15CFB14
9	35 E 35 F	TS180 TS185	1510C 1612E 1810C 1810E 1814E 2112E	16CS10 17C12 17C12LGP 17CS12 17E10.5 17E10.5LGP 18CMX12.5 18CS14 20E12.5
13	63 E 63 F	TS220 TS225	1812C 1814C 2010E 2012C 2014E 2412E	

Tractor Bulldozer, Crawler Type (127.02.06.05)

CLASSIFIER	MAKE AND MODEL									
Minimum Net Flywheel Power kW	Case	Caterpillar	Dresser	Dresssta	Fiat-Allis	Hanomag	John Deere	Komatsu	Liebherr	New Holland
50	550G 550H 650K 650L	D3C XL 111 D3CLGP111 D3C 111 D3G D3C, D4C D3K, D3K2	TD7G TD7H	TD-7H TD-7M			450E,G,H 450J 550G	D31 E and P D32 E and P D31EX-21 D31PX-21 D31EX-22 D31PX-22		D75
60	650G 750K 750L 750M 850D 850G 850K 850L	D4H,D5C D4C 111 D4C XL 111 D4CLGA111 D4G D4K D4K2 D5G D5K D5K2 D5XL 111	TD8G,H TD9H	TD-8H TD-8M TD-9H TD-9M	FD7 FD9	D500E	550G, H 550J 550K 650G, H 650J 650K	D32E-1 D41A D37 E and P D37EX-21 D37EX-22 D37PX-22 D38 E and P D38E-1 D38P-1 D39 E and P D39EX-22 D39PX-22 D39E-1 D39P-1 D41 E and P D41E-6 D41P-6	PR711 PR712B	D85 D95
80	850M 1150E,G 1150H 1150K 1150M 1450B 1550 1650K 1650L 1650M	D5H D5M LGP D5M XL D5NLGP D5N XL D5XL 111 D6K D6N LGP D6N XL D6K2	TD12 TD12G	TD-12C TD-15C TD-12C-XP	14C	D540E D600D	700H 700J 700K 750B, C 750BLT 750CII 750J 750K	D53A D65E D41E-6C D41P-6C D51EX-22 D61EX-15 D61PX-15	PR721 PR722B PR731	
120	1850K	D6RLGPD/S D6RLGP 11 D6RXL 11 D6RXW 11 D6T D7G, H	TD-20 TD15E	TD-15H	FD20	D700D	850B 850BLT 850C 850J 850K	D61EX-15EO D61PX-15EO D65 E and P D65EX-15 D65PX-15 D65EX-17 D65PX-17	PR732B PR741	
160	2050M	D7E D7R D/S D7RLGP 11	TD20G TD-25	TD-20H	FD30B		950J	D85E D85 E and P D85EX-15EO D85PX-15EO D155A D155AX-7	PR742B	
210		D8N, D9N D8R D/S D8R 11 D8T	TD25G	TD-25H			1050C 1050J	D155AX-3 D155AX-6	PR752	
280		D9R D/S D9T D10T2	TD40	TD-40C	FD40				PR751	

Note: The power rating should be obtained from equipment in use, as the models in the table above may span a number of years and categories/ratings.

Tractor Bulldozer Ripper Attachment, Hydraulic, Rear Mounted (127.02.06.06)

CLASSIFIER	MAKE AND MODEL					
Power kW	Case	Caterpillar	Dresser/ Dressta	John Deere	Komatsu	New Holland
50	550H 650H 650K 650L 750H 750K 750L 750M 850H 850K 850L 850M 1150H 1150K 1150M 1650K 1650L 1650M	D3G D3K D3K2 D4G D4K D4K2 D5G D5K D5K2 D6K D6K2 D6NXL D6NLGP	TD7H TD8H TD9H TD12C-XP	450J 550J 550K 650J 650K 700J 700K 750J 750K	D37E-5 D41E-6 D31EX-21 D31EX-22 D37EX-21 D37EX-22 D37PX-21 D37PX-22 D39EX-21 D41E-6C D51EX-22 D61EX-12	D75 D85 D95
120	1850K	D6R D6T	TD15H TD15H/LGP	850J 850K	D61EX-15EO D65EX-12 D65EX-15 D65EX-17	
160	2050M	D7E D7R	TD20H	950J	D85E-21 D85EX-15 D85EX-15EO D85PX-15	
210		D8R D8T D8R LGP	TD25H	1050J	D155AX-5 D155AX-7	
280		D9R D9T D10T2	TD40C		D275A-2 D375A-3	

Wheeled Tractor, Farm, Industrial, Two-Wheel Drive (127.02.06.07)

CLASSIFIER	MAKE AND MODEL						
Power kW	AGCO	Case	John Deere		Kubota	Massey Ferguson	New Holland
10			790 990 1023E 3005 4210 4310		BX25 B26	GC1715 GC1750 MF 1215-2 MF 1225-2 MF 1230-2 1233-2 1240-2 1250-2 1726E	TC-18 TC-25 TC-29 TC-30 TC-33 TC-35
25			110 4005 4044M 4044R 4052R 4510 4610 5045	5045D 5103 5105 5203 5205 5220 5225	L39 M 4900 F	MF 451 1734E 1736 1739E 1749 1754 2615 2605	3010S 3415 Boomer 3040 TC-40 TC-45 TN-55 TN-65
40			5055 5055D 5065E 5065M 5210 5303 5310	5320 5325 5403 5420 5425 6120	M59	MF 471 240 240S 253 263 271 1758 1759	TN-70F TN-70 TN-75 TL-80 STD
50	LT 70 LT 85	570L 570 Mxt 570 Mxt Turbo	210LE 5075E 5075M 5085M 5410 5510 5520 5525 6110	6210 6215 6220 6320 6403 6405 6415 6420 6603		281 2635 4335 4345 4608 4609 5609 6255-2 M 6800 F MF 481	LT-90 TN-80F TN-95F T4.75 Powerstar STD U80B
70	RT 95 RT 115		5095M 5100M 6100D 6105D 6105M 6115D 6115M 6230 6310 6330 6410 6430	6603 6605 6615 6715 7210 7220 7405 7410 7420		4360 4370 5610 5611 5612 6265-2 6270-2 6280-2 6290-25	TM-120 TM-130 TM-140 TS6.110 TS6.120 TV-140
90	RT 130 RT 145		6125M 6730 7130 7230 7320	7330 7520 7610 7710 7810		5613 6290-2	TM-155 TM-175 TM-190 TS6.125 TS6.140
120			7210R 7530 7630 7730	8120 8130 8220			
160			7230R 7830 7930				

Wheeled Tractor, Farm, Industrial, Four-Wheel Drive (127.02.06.08)

CLASSIFIER	MAKE AND MODEL									
Power kW	AGCO	Case	Ditch Witch	Fendt	JCB	John Deere		Kubota	Massey Ferguson	New Holland
10						790 990 1025R 1026R 2025R 2032R 2210 2305 2320 2520 2720 3005	3032E 3033R 3120 3203 3320 4010 4110 4115 4210 4310 4410	L310 DT	MF 1205-4 MF 1215-4 MF 1225-4 MF 1230-4 MF 1233-4 MF 1235-4 MF 1240-4 MF 1250-4 MF 1260-4 1526 1532 1533	TC-18 TC-21 TC-25 TC-29 TC-30 TC-33 TC-35 Boomer20 Boomer24 Boomer25 Boomer30 Boomer33
25			3610 3700 3700CD 5110			110 990 3046R 3038E 3039R 3520 3720 4005 4105 4120 4320	4510 4610 4710 5045 5045E 5105 5202 5205 5220 5225	L3410 DT L3710 DT L4310 DT L4610 GST R4205 R5205 L39 L48	MF 451 1529 1540 2605 2615	TC-40 TC-45 TN-55 TN-65 2120 3010S Boomer35 Boomer37 Boomer40 Boomer41 Boomer47
40					210SU	4520 4720 5055 5055E 5065 5065E	5210 5320 5325 5420 5425 6120	M6800 DT MX5700 DT	240 253 263 271 4325 MF 471	TN-70F TN-70 TN-75 TL-80
50		570L 570Mxt 570Mxt Turbo		409 410	212SU	210LE 5085E 5075E 5075M 5085M 5310 5410 5510 5520 5525	6110 6210 6215 6220 6320 6403 6405 6415 6603 7210	M6800 DT	281 MF 481 2630 4335 4345 4608 4609 5609 6255-4	TL-80F TL-90 TN-95F TS-90 TS-100 TS-100 TS-110 T4.75 T4.85F
70	RT 95 RT 115 DT 200 DT 225			411 412 712		5095M 5100E 5100M 5105M 5115M 6100D 6105D 6105M 6115D 6115M 6115R 6230	6310 6330 6410 6430 6605 6615 6715 7210 7220 7320 7420 7510	M100X M110X M126X M135X	4355 4360 4370 4610 4610LP 5610 5611 5612 6280-4 MF7614	TL-100 TM-120 TM-140 T4.95F T5.95 T4.105F T5.105 TS6.110 T5.115 TS6.120
90	RT 130 RT 145			714 716		6105R 6125M 6125R 6130 6140 6730	7130 7230 7520 7610 7720		5613 6290-4 MF6614 MF6615 MF7615	TM-155 TM-175 TS6.125 TS6.140 T7.175
110	DT 160 DT 180			918		7330 7530 7810	8120 8130 8220		MF6616 MF7616 MF7618 MF7619	TM-190 T7.210
135	DT 200			920		7630 8220 8230			MF7620 MF7622	T7.190 T7.230 T7.245
150	DT 225			924		7210R 7230 7730 7830	8320 8330 8420 9120		MF7624 MF7626	
180				926		7250R 7270R 7290R 7310R	7930 8430 9320 9420			

Motor Grader, Articulated Frame (127.02.06.09)

CLASSIFIER	MAKE AND MODEL							
Min. Operating Wt. kg	Case	Caterpillar	Fiat-Allis	Galion/ Dresser	John Deere	Komatsu	New Holland	Volvo/ Champion
11,500	845	135 H 140 H		830 850	670B 670C Series II 670CH Series II	GD530A GD530AW-2C GD555-3 Laterra GD650A GD650AW	RG 140	C70A 710A 710A VHP
14,000	845B 865 865B	12H 143H	FG 70A-B FG 75A-B FG 85A-B	970	770B 672CH Series II 770CH Series II 772CH Series II	GD650A-2C GD650AW-2C GD670A GD670AW GD750AW GD555-3 GD655-3	RG 170	710A 720A 720A VHP G710B G720B
15,500	865B AWD	160H 163H			670G 672G 770G	GD670AW-2C GD670A-2C GD675-3 Laterra GD675-3	RG 200	730A 730A VHP 740A 740A VHP G730B E740B G930 G930B G940 G940B
17,000	885 885B	14H 12M 120M 12M3 140M3 160M3	FG 105A-B		670G 672G 770G 772G 870G 872G	GD750A-1		750A 750A VHP 780A 780A VHP G780B G946 G946B G960 G960B G970 G976 G990
22,000		16H 14M 16M 140M 160M						

Spreader Attachment (127.02.06.12)

CLASSIFIER	MAKE AND MODEL
Equipment Type	Midland
Grader/FEL - Shouldering	SA-1 WA-1

Shoulder Spreader/Road Widener (127.02.06.13)

CLASSIFIER	MAKE AND MODEL		
Spreader Width m	Blaw-Knox	Midland	Weiler
2		SP-8 SPD-8	W430
3	RW-100A RW-195D	SP-10 SPD-10 SPD-12	W530 W730

Reclaimer/Stabilizer (127.02.06.14)

CLASSIFIER	MAKE AND MODEL					
Equipment Size kW	Bomag	Caterpillar	CMI	Hypac	Roadtec	Wirtgen
250	100R 100S 100S-DM MPH 362R MPH 362S MPH 362SDM MPH 364S MPH 364S-2 MPH 364R MPH 364R-2 MPH 364SDM PH 364SDM-2 RS446D	RM250C RM 300 RR250B SS250B	RS-350 RS-446	MPH 362 SDM	SX-2e	WR 200i WR 2000 WR 2000XL
325	MPH 122 MPH 122-2 MPH 454S	RM350B RM500	RS-425 RS-425B RS-500B RS-500C	MPH 364R MPH 364S MPH 454R MPH 454S	SX-4e	SS Raco 350 WR 2400
440	MPH 125		RS-600C RS-650 RS-650B RS-800 RS-950B		SX-6e	WR 240i WR 2500S WR 2500SK 2200CR
500	RS950B				SX-8e	WR 250

Grade Trimmer (127.02.06.15)

CLASSIFIER	MAKE AND MODEL	
Minimum Width m	CMI	Gomaco
2	TR 3503 TR 4503	
3	TR 6004	9000 9500

127.03.07 EXCAVATION EQUIPMENT
Hydraulic Excavator, Crawler Mounted (127.02.07.02)

CLASSIFIER		MAKE AND MODEL													
Min. Oper. Weight kg	Nominal Bucket Size m ³	Bobcat	Case	Caterpillar	Daewoo	Fiat-Allis	Hitachi	John Deere	Kobelco	Komatsu	Kubota	Liebherr	Linkbelt	Samsung	Volvo
1,000		320 325 331		300.9D 301.6C			EX17U EX27U	17ZTS 28CZTS		PC12R-8 PC15R-8 PC27R-8	KX018 KX91				EC20C ECR28
3,000				304DCR	DH50		EX35U EX80-5	35CZTS 17D 27D	30SR-3 35SR-3	PC35MR-2 PC35MR-3					EC35C
4,000			CX36B CX50B				EX50	50CZTS	50R 50SR-3	PC45MR-3 PC50MR-2 PC58UU-3	KX040 KX121			SE50-3	EC20C EC55 EC55C ECR58
6,000			9007B CX75MSR	305E CR 305.5E CR 307B 307D 308E2 308CR/SB 311B			EX110	80 190E 50D 290D	55SRX SK75R SK70SR SK85SR	PC60-7 PC78-8 PC95	KX057		1600		EC55C ECR58D ECR88 ECR88D
12,000	0.3		9010B CX130 CX130B CX130C CX135SR CX160C	312BL 312D 312E 314D 314E 316E 318E 311F RR		FX130LC	EX120 EX150	110 120 490D	SK135SR SK140SR	PC120-6 PC130-8	KX080		2650 LS2650	SE130LC-3	EC140B EC145D EC160D
15,000	0.5		9020B CX160 CX160B	315BL 318BL	DH170		EX160 EX200	590D 160LC		PC150LC-6 PC170-6 PC138LC-8		R900	2700 LS2700		EC145 EC150 EC160
19,500	0.7		9030B CX210 CX210C	319DL 320DL 320L	DH220LC	FX210LC	EX220 EX200LC-5 Zaxis 200	690ELC 200LC 210G LC	SK200SR SK210LC	PC200LC-6 HB215LC-1		R317 R900C R902 R904 - LITRONIC R912 R914 - LITRONIC	2800 LS2800	SE210LC-3	EC210B EC220D
23,000	1.0		9040B CX240 CX250 CX300C	320EL 321D 321D LR 322L, BL 326FL	DH280	FX250LC	EX230-5 EX270	790ELC 230LC 245G LC	SK230SR SK235SR SK260LC SK260SR	PC220LC-6 PC228LC-8 PC240LC-10 PC250LC-6		R906 R922 R924 - LITRONIC R932	3400 LS3400	SE240LC-3	EC240B EC240C EC220D ECR235D
26,500	1.2		9045B CX290 CX300	325BL 326FLCR 329FL 336EH 336F	DH320	FX310LC	EX270-5 EX300	270LC 290G LC 892	SK290LC	PC270LC		R934 - LITRONIC R942	3900	SE280LC-3	EC290B EC290C EC300D
32,000	1.5		9050B CX330 CX350 CX350C	328D 328DLCR 330BL 330L 336DL			EX330LC-5 EX370-5 EX400 EX450	330LC 350G LC 370	SK330LC SK350 LC	PC300LC PC360LC-10		R944 - LITRONIC	4300	SE350LC-2	EC330B EC330C EC340D EC360B EC360C EC380C
44,000	1.7		9060B CX460 CX470 CX470C	345BL 345DL 349F 350L	DH450		EX450-5	450LC 470G LC	SK480LC SK500LC	PC400LC PC400HD		R945B - LITRONIC R954/C R964/C	5800 LS5800	SE450LC-2	EC460B EC460C EC480D
55,000			CX700B	365BL			EX550 EX550-LC Zaxis 600	600LC		PC600LC					
70,000	2.0		CX800 CX800B	374DL 374FL 375L 375BL 385CL 390FL			EX700 EX750-LC Zaxis 800	670G LC 750 800C		PC750			8000		EC700 EC700C
100,000	5.0			5080 5090			EX1100	870G LC		PC1100-6					

Hydraulic Excavator, Rubber Tired (127.02.07.03)

CLASSIFIER	MAKE AND MODEL							
Min. Operating Weight kg	Badger	Caterpillar	Daewoo	John Deere	Komatsu	Liebherr	Samsung	Volvo
11,000		M312 M315 M318 M313D M315D	DH130W	595	PW170 PW170ES-6 PW160-7 PW140-7	A308 A900 A309 - LITRONIC A311 - LITRONIC A312 - LITRONIC A314 - LITRONIC A316 - LITRONIC	SE170W3	EW160C
18,000	1085C	M320 M316D M318D	DH200W	190D W	PW200-7 PW180-7	A900C - LITRONIC A904C - LITRONIC A904 - LITRONIC A914 - LITRONIC A924 - LITRONIC		EW180B EW180C
21,000		M322D		220D W	PW220-7	A914C - LITRONIC A924C - LITRONIC		EW210C EW230C

Telescopic Boom, Carrier Mounted Excavator (127.02.07.05)

CLASSIFIER	MAKE AND MODEL	
Weight kg	Badger	Gradall
15,000	450-4X2 450-4X4 460-6X4 460-6X6 470 TM 4x2 470 TM 4x2 A 470 TM 4x4 470 TM 4x4 A	65WD XL3100 XL3100IV XL3300
22,000	670-6X4 670-6X6 888-6X4 888-6X6	XL4100 XL4100-II XL4100IV XL4300-II XL5100 XL5100IV

Telescopic Boom, Crawler Mounted Excavator (127.02.07.06)

CLASSIFIER	MAKE AND MODEL
Weight kg	Gradall
17,000	XL3200 III XL3300 III
20,000	XL4200 XL4200 III XL4300 III
23,000	XL5200 XL5200 III XL5300 III

Tractor with Loader/Backhoe Combination, Two-Wheel Drive (127.02.07.07)

CLASSIFIER		MAKE AND MODEL						
Minimum Power kW	Nominal Bucket Size m ³	Case	Caterpillar	JCB	John Deere	Komatsu	Massey Ferguson	Volvo
45	0.7	580L 580M 580N	416B 416C 416D 416E 426B	214 E IV 214 III 3C 14FT 3C 15FT 3CX 14FT	310D 310E			
60	1.3	580SL 590SL 580M Turbo 580N 580 Super M 580 Super M+ 580 Super N 590 Super M	416F 420D 420E 420F 426C 430D 436B 436C 446B	214 214E 215 215 E III 217 217 III	310J 310K 310SE 310SK 310SJ 310SJTMC 410D 410E 410J 410JTMC 510D	WB150-2	50HX 60	BL60 BL60B
75	1.3	590 Super N	446B 446D		410K 710D			
94	1.3				710J 710K			

Tractor with Loader/Backhoe Combination, Four-Wheel Drive (127.02.07.08)

CLASSIFIER		MAKE AND MODEL						
Minimum Power kW	Nominal Bucket Size m ³	Case	Caterpillar	JCB	John Deere	Komatsu	Kubota	Volvo
30	0.5			208S Midi CX	110 TLB		L39 L45 M59	
45	0.7	580L 580M 580M Turbo 580N	416B 416C 416D 420D 426B 436	210S 212S 214 214 IV 215E 2CX 12FT	310D 310G 310J 310SG 315SG 410D	WB142-5		BL60
65	1.3	580SL 580 Super M 580 Super M+ 590 Super M 590 Super M+ 580 Super N 580 Super NWT	416E 416F 426C 430D 437C 446D 420E/IT 420F 430E/IT	214E 214 III, S, SM 215 215 III, S 217 217S 217 III 3C 14FT 3C 15FT 3CX 14FT 3CX 15FT 3CX 17FT 4CX 14FT 4CX 15FT 4CX 17FT	310K 310SJ 310SJ TMC 310SK 315SJ 315SK 410E 410G 410J 410J TMC 510D	WB146-5 WB146PS-5 WB156-5 WB156PS-5		BL60B BL70 BL70B
80	1.3	590 Super N	430F 446B 450E		410K 710D 710G			
94	1.3		450F		710J			

Front End Loader, Crawler Mounted (127.02.07.10)

CLASSIFIER	MAKE AND MODEL			
Power kW	Caterpillar	Fiat-Allis	John Deere	Liebherr
50	933 933C 939C		455G 555G	LR611
70	953B 955C 939	FL145	605C 605K 655C	LR614 LR621C LR622 - LITRONIC
100	755C 936B 939C 953C 953D 960C 963C 963D	FL175	655C-II 655K 755C 755K	LR614 LR624 LR631C LR632 - LITRONIC LR634
150	973 973B 973C/D 973D		755C-II	LR641C LR641 - LITRONIC

Front End Loader, Rubber Tire, Four-Wheel Drive (127.02.07.11)

CLASSIFIER	MAKE AND MODEL												
Power kW	Case	Cat	Dresser	Fiat-Allis	Hyundai	JCB	John Deere	Kawasaki	Komatsu	Liebherr	New Holland	Volvo	
40	21E 221E 221F 321E 321F	914G	510C	FR70 FR90		210SL 406 407B ZX 409 409B ZX 411 411B HT 411 HT	244E 244H 244J 304H 304J 324H 344G 344H 344J	WA95-3 50Z IV	WA120-1 WA65-5 WA70-5 WA80-5 WA100-5 WA150-5	L512 L525		L20B L20F L25B L25F L30B L30G L35B L35G	L40B L45B L50C L50D
75	521D 521F 621B 621C	924F 924G 924H 928F 928G	515C	FR100 FR120.2	HL 740-7	416 416B HT 416 HT 426 HT 426B HT 426B ZX	444G 444H TC 44H 544G 544H TC 54H	60Z IV 65Z V 70Z V-2	WA120-3 WA120L-3 WA180-1 WA180-3 WA250-3 WA250-5	L522	W110B	L45G L50G L70C	
100	521E 621D 621F 721B 721C	928HZ 930G 930H 938F 938G	520C 532	FR130.2 FR140.2		426 ZX 436 HT 436B HT 436B ZX	544J 624G 624H TC 62H	65Z IV-2 65Z V 70Z IV-2	WA250-1 WA300-3 WA320-1 WA320-3 WA320-5	L531-B L541-B L542	W130B	L60E L60F L60G L70E L90C	
125	621E 721D 721E 721F 821B	821C 821D 938H 939 950F 950G	938-II 950H 962G	FR160.2 FR180.2		456B ZX 456 HT 456 ZX 950G	624J 644E 644G 644H 644J 644H MH	70Z V 80Z V	WA380 WA380-5 WA400-5	L544 L550 L556	W170B W190B	L70F L70G L90E L90F L90G	
150	821E 821F 921B 921F	950K 960F 962K 966F	962G-II	545	FR220.2	HL 760-7	724J 744E 744H 744H MH	80Z IV-2 85Z IV-2 85Z V-2	WA420 WA420-1 WA430-6	L551		L110E L120C L120E	
175	921C	962H 966G	966H			HL 770-7	744J		WA450-5	L564 L566		L110G L120F	
200	921D 1021F	921E 970F 972G	966G-II 966K 972K				824J	90Z IV-2 90Z V	WA450-1 WA450-3 WA480-5 WA500-1	L576 L580		L120G L150C L150E L180C	
225	1121F	980G				HL 780-7	844J	95Z IV-2	WA500 WA500-3			L180E L220D	
250		980H 980K						95Z V	WA500-6	L586		L220E	
300		988F 988G 988H	990	560B				115Z IV-2 115Z V	WA600-1 WA600-3 WA700			L330C L330E L350F	
400		988K 990H	990K 992G					135Z V	WA700-3			L350F	

Skid Steer Loader, Rubber Tire (127.02.07.12)

CLASSIFIER	MAKE AND MODEL									
Lift Capacity kg	Bobcat	Case	Caterpillar	Gehl	JCB	John Deere	Mustang	New Holland	Thomas	Volvo
300	463 553 S100 S130 443B 543B 743B 753 753H	40 XT 1825B 1825 1838 410 SR130	216 226	3935 4635 SXT SL3410 SL3825 SL4625	160 170 165 Robot	240 313 315	2022 2032 2044	L213 LS120 LS125 LS140 LS150	85 105 135 T83 T103 T105 T133S	MC60 MC70
700	S160 S175 S185 S510 S530 S550 7753 853 853H	1845 1845C 420 SR160 SR175 SV185	232 236	4835 SXT SL5625		250 317	2054	L218 LS160 LS170	153 175 T173	MC60C MC70C MC80
850	A220 S205 S220 S570 S630 SR175 SR220	70 XT 75 XT 85 XT 430 435 440 SR210	242 246 248 252 260	5635 SXT 6635 SXT SL6625	190 185 Robot	260 320	2064 2074	L220	225 245HF T183 T203 T233HD	MC85C MC90 MC95C
1,000	A300 S250 SR250 SV250	90 XT 445 SR220	262 270		185 Robot	325		L223 L225 LS180	255	MC110 MC115C MC155
1,200	S300 S750 S770	95XT 465 SV300	280	7600 7800	1110	318D 318E 320D 320E 328 332	2095 2105	L230 LS190		MC135 MC135C
2,500	S650					328D 328E 332D 332E				

Skid Steer Loader, Tracked (127.02.07.13)

CLASSIFIER	MAKE AND MODEL						
Tipping Load * kg	Bobcat	Case	Caterpillar	John Deere	New Holland	Kubota	Volvo
900	T140					SVL75	MCT85C
1,100	T180 T550	420CT					MCT 125C
1,300	T590	440CT 445CT	279C	CT322	C175		MC 135C
1,600	T190 T250	450CT	289C		C185		
1,800	T300 T630 T650 T750 T870	TR270 TR320 TR380 TV380	299C	CT315 CT319D CT323D CT323E CT329D CT329E CT332 CT332D CT333D CT333E	C190	SLV90	

* SAE - Rated Operating Capacity @ 50% Tipping Load

Skid Steer Loader, Attachments (127.02.07.14)

CLASSIFIER	MAKE AND MODEL																
Attachment Type	Bobcat	Case	Caterpillar	Cleansweep	Gehl	John Deere	New Holland	Teledyne	Thomas	Volvo	Bore Pig	ETerra	Bradco	Quick Attach	Arrowhead	FFC	Sweepster
300 mm Auger	AB	CA15			300 A		300 P		AU 19	NR 3-10	9PD 12PD 15PD 19PD	3500 4500					
Backhoe		D100 D125							XR 911				509 511	QA640 QA940			
Breaker	BR		H45/H45S		550 BK	HB 15			HB 102					210SX 310SX 360SX	S30 S40 S50 S60		
Scarifier														Quick Tiller 66 and 78			
Sweeper			BA18	AMH72	72 BR	BA72	560B	TB 125	AB 101	ABR10-2							
Multi-Bucket	MB411				36 MB	MP66	40B-ML			MBU-2-10							
Power Rake	PR				65 PR	PR72			MB 106					RSC72 RSC84 FSC72 FSC84			
Steel Tracks	STR	Grouser 120 GR10 GR12 GR14	ST18			ST32	45T-ST			STR8-10							
Trencher	TR				24TR	TR48	16TR			TRE14-10				Mini Trencher Standard Trencher			
Cold Planer	CP	Alitec 30	PC4		16 CP	CP12	16C		CP 110	PL4-10			SP300 HP450 HP750 HP1000			FFC16 FFC18 FFC20 FFC30 FFC36	
Pick Up Broom	PB		BP18		72PB	PB72											SB60 SB72 SB84 VRS5 VRS6 VRS7 VS5 VS6 VS7

Chain Type Trenching Equipment (127.02.07.15)

CLASSIFIER	MAKE AND MODEL				
Power kW	Astec	Case	Ditch Witch	Toro	Vermeer
13	RT 60 RT 130 RT 160 TF 300B	TF300B	1820 RT12 RT25 100SX	TRX20 TRX26	RTX150 RTX250
20	RT 360 RT 460	360 460	3610 3700 RT36 RT40 RT45		LM42 PTX44
35	RT 560 RT 560 Quad RT 660 RT 669 Quad	560 660	3700 CD 5110 5700 RT55 410SX 420SX	RT600	
50	RT 960		7610 8020 RT70 RT75 RT80Q RT90 RT100 RT95 RT120 RT115	RT1200	T455 T555 T655

127.03.08 HAULAGE EQUIPMENT

Dump Trucks, Off Highway, Rigid Frame (127.02.08.14)

CLASSIFIER	MAKE AND MODEL			
Payload kg	Caterpillar	Euclid/Hitachi	Komatsu	Terex
30,000	770	R35		3305B TR35 TR40
35,000	769C 769D 770G	EH650	HD325-6	3340 3345
38,000	771D 772 772G	EH700 EH750-3	HD325-7 HD405-7	TR45
50,000	773D 773E 773F 775E 775F 773G	EH1000 EH1100 EH1100-3	HD465-7 HD605-7	3360B 3310E TR60 TR70
75,000	777D 777F 777G	EH1600 EH1700 EH1700-3		TR100

Dump Trucks, Off Highway, Articulated Frame (127.02.08.15)

CLASSIFIER	MAKE AND MODEL								
Payload kg	Caterpillar	Hitachi	John Deere	Komatsu	Link Belt	Moxy	Terex	Volvo	Bell
20,000	D25D D250E 725 725C	AH250-D	250D		D25		2566C 2766C TA25	A25B A25C A25D A325F	
26,000	D30D D300D D350E 730 730C 730C Ejector	AH300-D	300D	HM300-1 HM300-2	D300	MT30X	3066C TA30	A30C A30D A30F	
30,000	735 735B	350D	350D	HM350-1		MT36	TA35	A35C A35D A35F A35FFS	B35D
35,000	D40D D400D D400E 740 740 Ejector 740B 740B Ejector	AH400-D	400D	HM400-1 HM400-2		MT40B	4066C TA40	A40 A40D A40F A40FFS	B40D
40,000									B45D B50D

127.03.09 HOISTING EQUIPMENT

Boom Truck (127.02.09.01)

CLASSIFIER	MAKE AND MODEL				
Lift Capacity kg	National Crane	Terex	Maintex	Manitowoc	Tadano
7,000	300C 400B				TM-1052
11,000	300 C * 400 B * 500D 500E 600D 600E	3063B 3470 3874	1703 C 1704 C	1770 C 1781 C	TM-1882 TM-20110
19,000	800D * 900A * 900H * 500 E2 NBT 14 NBT 15 NBT 16 600E 600D 600 E2 600 H	BT3870 4485 4792	2601 C 2801 C	26101 C 22101 S 2892 S	
25,000	800 D * 800 H 900 A * 900 H * NBT 30 H 1100 1300 1400 1500 1800 NBT 36 NBT 45 NBT 55 1400 H	BT 4792 BT 28106 BT 70100 RS 70100 5092 60100	102 WL 3001 3001 C 3500	2892 C 2892 C-HYACS 38100 HL 38124 HL	

* May be either capacity depending on equipment year of manufacture.

Hydraulic Crane, Rough Terrain (127.02.09.02)

CLASSIFIER	MAKE AND MODEL						
Lift Capacity kg	Broderon	Grove	Link Belt	Badger	Tadano	Zoomlion	Terex
13,000	IC 200-3G IC 250-3D IC 200-F IC 250-A IC 250-3C RT 200-E RT 300-B RT 300-C RT 300-2E			CD 4415	TX 150XL		208S
20,000		RT 530E2 RT 540E RT 525E RT 530E TR 540E	ATC 822 C 8030-SII RT 8030-II RTC 8030 RTC 8040	CD 4430	TR 300XL-4 TR 450XL-4		CD 200 RT 200 RT 300-1 RT 230-XL
40,000		GMK 2035 GMK 3050 GMK 3055 RT 600E RT 700E RT 765E2	C 8050-SII RTC 8050 RTC 8050-IV RTC 8060 RTC 8065		ATF 500XL TR 450XL-3 TRX 600XL-4 TRX 650XL-4		RT 500-1 RT 555-1 RT 345-XL RT 670-1
65,000		GMK 4090 GMK 5120B GMK 5240 GMK 6250 GMK 6250L GMK 7550 RT 770E RT 875BXL RT 875C RT 880E RT 890E RT 9100 RT 9130E	C 8065-SII C 8080-SII C 8090-SII ATC 3130 RTC 8075-II RTC 8080-II RTC 8170		ATF 650XL ATF 1300XL TR 800XXL-4	RT75	600-1 RT 670 RT 700 RT 780 RT 780-1 RT 100
100,000		RT 9100 RT 9130E RT 9130E-2 RT 9150E	C 80110-SII C 80130-SII RTC 8090 RTC 80100			RT100	RT 130 RT 1000 RT 1100

Hydraulic Crane, Carrier Mounted (127.02.09.03)

CLASSIFIER	MAKE AND MODEL				
Lift Capacity kg	Grove	Liebherr	Link Belt	Tadano	Terex
12,000			ATC 822		
25,000	TMS 500E TMS 500E2	LTM 1030-2.1 LTM 1035-1 LTM 1040-2.1	HTC 8640 HTC 8640 Heavy Lift	TT 300XL	T 340-1 T 340-1-XL T 230 T 300 T 335 T 340 T 700
45,000	TMS 700E	LTM 1045-3.1 LTM 1050-3.1 LTM 1055-3.1 LTM 1045-1 LTM 1055-1	HTC 8660 HTC 8650 HTC 11100	TT 600XL	T 490 T 500-1 T 560
60,000	TMS 800E TMS 900E *	LTM 1060-1 LTM 1070-4.1 LTM 1080-1	HTTO 8675-SII HTC 8670LB HTT 8675 HTT 8690 HT 8675LB	TT 800XXL *	T 560-1 T 780-1 T 750 T 780 T 790
90,000	TMS 900E * TMS 9000E	LTM 1090-4.1 LTM 1100-4.1 LTM 1100-4.2 LTM 1100-5.2 LTM 1095-5.2 LTM 1100-5.1 LTM 1090-2 LTM 1095 LTM 1100-2 LTM 1130-5.1	HTTO 86100	TT 800XXL *	Roadmaster 9000
135,000		LTM 1150-1 LTM 1160-2 LTM 1200-1 LTM 1160-5.1			
200,000		LTM 1250-1 LTM 1300-1 LTM 1500 LTM 1800 LTM 1200-5.1 LTM 1220-5.2			
250,000		LTM 1250-6.1 LTM 1300-6.1 LTM 1350-6.1	ATC 3275		

* May be either capacity depending on equipment year of manufacture.

Lattice Boom Crane, Crawler Mounted (127.02.09.04)

CLASSIFIER	MAKE AND MODEL					
Lift Capacity kg	American Crane	Kobelco	Liebherr	Link Belt	Manitowoc	Terex
32,000			HS 833			
50,000	5299A 5300		HS 835 HD	108 HYLAB 5 LS-108 H II LS-138 H II LS-208 II		
70,000	HC 80 7225A	CK 800 III CK 850 III CK 850 G		138 HYLAB 5	Model 111 8500-1 8000-1	HC 80
90,000	7260 HC 110 HC 125 9260	CK 1000 III CK 1100 G	HS 855 HD HS 860 HD HS 885 HD LR 1090 LR 1100	LS-218 H II LS-308 H II 218 HSL	Model 222 11000-01 12000-01 10000 10000 B1	HC 110
130,000	9299 HC 150 HC 210	CK 1600 II CK 2000 II CK 1600 G	LR 1130 LR 1160	238 HSL LS-238 H LS-248 H II 248 HYLAB 5	Model 555 Model 777 MLC 165	HC 165
200,000	9310A 9320	CK 2500 II	HS 895 HD LR 1200 LR 1250	HC-278 H 248 HSL 298 HSL 348 HYLAB 5 *	Model 888 Model 999	HC 230 HC 275

* May be either capacity depending on equipment year of manufacture.

Lattice Boom Crane, Carrier Mounted (127.02.09.05)

CLASSIFIER	MAKE AND MODEL			
Lift Capacity kg	American Crane	Liebherr	Link Belt	Manitowoc
60,000	5530		HTT 8675 HT 8675 LB	
110,000	7150 8470 9460 9480		HC-238 HII HC-248 H	777T
270,000	9490	LG 1550 LG 1750	HC-278 HII	

Aerial Bucket Lift, Truck Mounted, Including Truck (127.02.09.06)

CLASSIFIER	MAKE AND MODEL			
Platform Height m	Altec	Mobile Tool International	Terex	Versalift
7.0	AT200AV	P3	T292	Vantel 29N/1
10.0	AO442 AT35G L42A TA36 TA37 TA40 TA41	83G-36 U3	SC40 TL36P T292 LT38 L13i TL37 TL41	SST37E1H VO431
15.0	AM50 AM55 AM650 AM855 AT37G CLASS A 50 LRV52 LRV55	83G-42 829-45 829-50 U5-50 805B-50 805B-55	OM50 TL 45 TL50 TL55 TL60	LT56 VO255/260 VO350/355 VST5000-6000
20.0	CLASS A 70 CLASS A 77T			VST7500 VXD 50

Aerial Bucket Lift, Self-Propelled, Telescopic/Articulating (127.02.09.07)

CLASSIFIER	MAKE AND MODEL				
Platform Height m	Genie	Grove	JLG	Snorkel	Terex
9.0	A-30/20 Z-30/20N Z-34/22N			TB 37	TA 33 TA 34
12.0	S40 S45 Z-45/25 Z-45/25DC		400S 400SJ 450A 450AJ 460SJ M450A	AB 50J TB 42 TB 42J TB 47J TB 50 T 46J UNO41	TA 40E TA 50E TA 50RT TB 42 TB 50
18.0	S60 S65 Z-60/34 560X	A60J Type I A60J Type II T60 T60 Type II T65T	600A 600AJ 600AJN 600AN 600S 600SC 660SJ 660SJC	AB 60J TB 60 TB 66J	TB 60 TB 66
22.0	S80 S85 S80X Z80/60	A80J T80 T86J	740AJ 800A 800AJ 800HX 800HX6 800S 860SJ	TB 80 TB 85J	TB 85
30.0	S100 S105			TB 100J	TB100 TB110
36.0	S120 S125		1200SJP 1250AJP 1350SJP 150 HAX	TB 120 TB 126J	

Scissor Lift, Self-Propelled (127.02.09.08)

CLASSIFIER	MAKE AND MODEL			
Platform Height m	Genie	JLG	Skyjack	Terex
4.0	GS-1530 GS-1930 GS-2032 GS-2046	1532E3 1930ES 1932E2 2030ES 2032E2 2033E3	SJIII 3015 SJIII 3215 SJIII 3219 SJII 3220 SJIII 4620	TSM 20
7.0	GS-2632 GS-2646 GS-2668 GS-2668RT GS-2669DC GS-2669RT	260MRT 2630ES 2632E2 2643E2 2646E3 2646ES 2658	2409 SJIII 3226 SJIII 6826 SJ 4626 SJ 7127 SJ 6826RT	TSM 25RT TSM 26
9.0	GS-3246 GS-3268DC GS-3268RT GS-3384RT GS-3390RT GS-4390 GS-4390RT GS-5390 GS-3369	3246E2 3369LE 339RT 3394RT 4069LE 439RT 4394RT 500RTS 3669ES	4832 6832 8831 8841E 9250RT SJIII 4632 SJIII 6832 SJ 7135 SJ 8243 SJ 8831 SJ 8841 SJ 9250	TSM 30 TSM 30RT TM54RT

Tool Carrier (127.02.09.09)

CLASSIFIER	MAKE AND MODEL				
Power Rating kW	Case	Caterpillar	JCB	John Deere	Komatsu
40	570 XT 570 NXT	IT 14G *	411-HT	310SJ TMC	
75		IT 14G	416-HT	410SJ TMC 410SK TMC	WA200PT-5
100		924 K 930 K	426-HT	544J 544K 624J	
125		IT 38G 938K	436-HT 456-HT 457-HT	624K 644J 644K	WA250PT-5

* May be either capacity depending on equipment year of manufacture.

Telescopic Handlers (127.02.09.10)

CLASSIFIER	MAKE AND MODEL			
Lifting Height m	Bobcat	Case	Caterpillar	JCB
5 - 10	V 518 V 723		TH210 TH215 TH220 TH255 TH330B TH406 TH407	520
> 10		TX742 TX842 TX945	TH350B TH460B TL642 TL943 TL1055 TL1255	506-C 506-C HL 508-C 540 TURBO 550 506-36 509-42 510-56 512-56

127.03.10**PILE DRIVING EQUIPMENT****Hammer, Open End, Diesel (127.02.10.01)**

CLASSIFIER	MAKE AND MODEL					
Rated Energy J	APE	Berminghammer	Delmag	ICE	MKT	Pileco
50,000	D16-42 D19-42 D25-32	B-21 B-3505 B-4005	D16-32 D19-32 D19-42 D112-32	42S I-19	DE-42 DE-50 DE-50C	
80,000	D25-42 D30-32 D30-42 D36-32	B-32 B-4505 B-5005	D25-32 D30-32 D30-32/33	I-30 60S 80S	DE-70	
120,000	D36-26 D36-42 D46-32 D46-42 D50-42 D62-42	B-64 B-5505 B-6505 B-6505HD G4	D36-32 D36-32/33 D46-32 D46-32/33 D62-22	D62-22 I-36 I-46 I-62 I-80 100S 120S 120S-15 205-S	DE-110 DE-150	D62-22 D80-23

Driver Extractor, Vibratory Centrifugal, Including Power Pack, Excluding Crane (127.02.10.02)

CLASSIFIER	MAKE AND MODEL					
Driving Force kN	APE	Delmag	HPSI	ICE	J and M	MKT
245			MODEL 100	216	216	
392	50 Vibro Model 50	HPSI 65 HPSI 130 HPSI 150	MODEL 150	23 RF 7 RF	11-23	VC 5
637	100 Vibro 150 Vibro Model 100 Model 150	HPSI 200 HPSI 260	MODEL 200 MODEL 250 MODEL 260 MODEL 300	11-23 14-23 14 RF 40-30 44-30 416L 14C-230M	416 44-30 22-30 28-35	V-20B
980		HPSI 300 HPSI 400		44-50 66-65 416L 28C-350E	44-50	150 Tandem Vibro
1,471	200 Vibro, 3 Model 200	HPSI 450		44-65 44B-595E 50B-595E 55B-595E 66C-800E	44-65 66-65 66-80	V-30 V-35

Universal Piling Machine (127.02.10.05)

CLASSIFIER	MAKE AND MODEL			
Power KW	A.B.I. (Mobilram)	Liebherr	Bauer	Casagrande
< 450	TM 11/14			
450	TM 13/16 TM 14/17	LRB 125 XL LRB 155	RG 16T RG 19T	PTC PR 16/19
570	TM 18/22	LRB 255	RG 21T RG 20S RG 25S	

127.03.11 DRILLING EQUIPMENT**Mechanical Drilling Equipment, Truck Mounted,
Including Auger and Crowd and Power Pack (127.02.11.01)**

CLASSIFIER	MAKE AND MODEL		
Power KW	Reedrill	Watson	CME
80	Texoma Model 650 Texoma Model 500 Texoma Model 330	1100 2100	CME-55 CME-75
120		2500 3110	

Mechanical Drilling Equipment, Crawler Mounted, Including Auger (127.02.11.02)

CLASSIFIER	MAKE AND MODEL		
Power KW	Reedrill	Watson	ICE
95	Texoma 600T Texoma 700T	1100	
113	Texoma 800T	2100 2500	
130	Texoma 900T Magnum XLT Taurus XLT	2500 3110 3000 3100 3400	EX-12 EX-25

Hydraulic Drill Rig (127.02.11.03)

CLASSIFIER	MAKE AND MODEL							
Power KW	APE	Bauer	IMT	Liebherr	Mait	Soilmec	Watson	Casagrande
185	SA-16 SA-20 SA-22	BG 18 H BT 50 BG 20 H BT 60	AF 160 AF 180		HR 180	SR-40 SR-50	4400CM	B125XP B175XP B200XP C7XP C9XP
250	SA-25	BG 24 H BS 70 BG 24 H BT 70C BG 24 H BT 75 BG 25 H BG 28 H BT 60	AF 220 AF 240	LB 20	HR 260	SR-60 SR-65 SR-70PDC SR-70PDW SR-80PDC SR-80PDW SR-80CAT SR- 80CPDW3		B250 XP
350		BG 28 H BS 80 BG 36 BS 80 BG 36 H BS 80 BG 36V BS 95 BG 30V BS 95	AF 280	LB 24	HR 240- 800 HR 300- 570	SR-90 SR-100 SR-100PDC SR-90PDW		B300XP B360XP
430		BG 40 BS 100 BG 40 BS 115		LB 28 LB 36				
570		BG 50 BT 180						

Mechanical Drilling Equipment, Crane Mounted Attachment, Including Auger (127.02.11.04)

CLASSIFIER	MAKE AND MODEL				
Power kW	Berminghammer	Calweld	Reeddrill	Steven M. Hain	Watson
110	Mark IV BDH-30/30 BDH 60/60	125 CH 155 CH	CM 100	165 K 8V71 450 K (2005)	5000 CA 200 K

Horizontal Earth Boring Equipment (127.02.11.05)

CLASSIFIER	MAKE AND MODEL		
Power Rating kW	American Augers	Barbco Inc.	Bor-it Mfg.
20	24/30-150 30/225	24-150 30-200	24 Brute 30 Power Plus Model 24 Model 30 Model 36
50	36/42-440G2 48/54-900G2 42-600G2 36-600NG 42-600NG	36-350 36-500 36-630	36 Workhorse 36/425 Workhorse Model 42 Model 48 48 Terminator
100	16-1200 72-1200 48/54-900NG 60-1200NG 72-1200NG	48-750 48-950 48/60-1350 60/72-1000HD 60-1HD	Model 54 Model 60
200	84/96-1800NG		

Trenchless Directional Drill, Track Mounted (127.02.11.06)

CLASSIFIER	MAKE AND MODEL					
Operating Wt. kg	Astec/Toro	Case	Ditch Witch	Vermeer	McCloskey	American Augers
1,000	DD-65 DD-1416 DD-2024	6010	JT 520 JT 921 JT 922 JT 1220 Mach I JT 5	D7 X Series II D16 X 20A D9 X 13 D20 X 22 Series III	DD15	
7,000	DD-3238 DD-4045	6030	JT 2020 Mach I JT 2720 Mach I JT 3020 Mach I JT 30AT	D24 X 40A Series II D24 X 40 Series III D18 X 22 D36 X 50 Series II		
12,000	DD-6		JT 4020 Mach I JT 8020 Mach I JT 100AT	D60 X 90 Series II D75 X 100 D15 X 300 D80 X 100 Series II		
20,000						D110 D155T

Hydraulic Rock Drill, Including Power Pack, Excluding Drill Steel and Bits (127.02.11.07)

CLASSIFIER	MAKE AND MODEL					
Diameter mm	Caterpillar	Atlas-Copco	Ingersoll-Rand	Sandvik	Tamrock	Terex/Reeddrill
< 75		ROC D5		DC120 DC301R	Commando 110 Commando 120	
75	MD 5050 MD 5050T MD5075C	ROC 642 HP ROC D3 ROC D7 ROC F7 ECM-580 ECM-590 ROC D7 RRC ROC D7C-11	ECM-470 ECM-580 ECM-590 ECM-660	DX700	Ranger 500 Scout 500 CHA 560 Dino 560 Ranger 600 Ranger 700 Scout 700 CHA 700	R20 SD345C
125	MD 5090 MD 5075	ROC F9 ECM-660 II ECM-720 ROC L7	CM-692 ECM-680 ECM-690	DP900 DP1100 DX800	Ranger 800	SD345 R30C
150	MD 5125C MD5150C		CM-695D	DP1500 D1550		SCH5000C

Note: Ingersoll-Rand line sold to Atlas-Copco.

Tieback Drill Rig, Hydraulic, Dual Head (127.02.11.08)

CLASSIFIER	MAKE AND MODEL			
Power Rating kW	Casagrande	Davey-Kent	Hutte	Klemm
< 140	M6	DK625		
140	C7 C8 M9 M9-1 Hutte HBR C6XP	DK720 DK725 DK820	HBR605	KR 600-1 806-3D 806-3F 806-4 KR807-7

Front Mounted Attachment, Hydraulic (127.02.12.01)

CLASSIFIER	MAKE AND MODEL					
Broom Width m	Case	John Deere	York	M-B Companies	Multi Sweep	Sweepster
1.2	VRS Series, 1.5 m	BR60	SSAB, 1.5 m	LB Series, 1.2 m CL-HT, 1.5 m FLB, 1.5 m HL Series, 1.5 m HTS, 1.5 m LB Series, 1.5 m SHL Series, 1.5 m SHT, 1.5 m	270	QCTL Series, 1.5 m RLH, 1.68 m SB, 1.5 m SSL Series, 1.5 m VRS Series, 1.5 m VS5, 1.5 m
1.8	SB Series, 1.8 m VRS Series, 1.8 m CS Series, 2.1 m SB Series, 2.1 m VRS Series, 2.1 m	BA 72 BP 72 BR 72 BA 84 BP 84 BR 84	FLB, 1.8 m SSAB, 1.8 m SSAB, 2.1 m TFB, 2.1 m FLB, 2.3 m	FLB Series, 1.8 m HL Series, 1.8 m HT Series, 1.8 m LB Series, 1.8 m LLB Series, 1.8 m SHL Series, 1.8 m SHT Series, 1.8 m HL Series, 2.1 m HT Series, 2.1 m LB Series, 2.1 m LLB Series, 2.1 m SHL Series, 2.1 m TK-H Series, 2.1 m TKH-TR Series 2.1 m HL Series, 2.1 m HT Series, 2.1 m LB Series, 2.1 m LLB Series, 2.1 m SHL Series, 2.1 m TK-H Series, 2.1 m HTP Series, 2.1 m HLP Series, 2.1 m TKH-T Series, 2.1 m	425 C 725 C	CH, 1.8 m LCH, 1.8 m LH, 1.8 m MCH, 1.8 m MH, 1.8 m RHFA, 1.8 m TMRH, 1.8 m 2500, 1.8 m QCTL Series, 1.8 m SSL Series, 1.8 m VS Series, 1.8 m VCS Series, 1.8 m AD AD, 2.1 m CS Series, 2.1 m LH Series, 2.1 m QCS Series, 2.1 m SB Series, 2.1 m TKH, 2.1 m VRS Series, 2.1 m VS Series, 2.1 m QCTL Series, 2.1 m SSL Series, 2.1 m VCS Series, 2.1 m
2.4	CS Series, 2.4 m	CS Series, 2.4 m	FLB, 2.43 m SSAB, 2.7 m TFB, 2.4 m TFB, 2.7 m TFB, 3.0 m	HL Series, 2.4 m HT Series, 2.4 m LB Series, 2.4 m LLB Series, 2.4 m TK-H Series, 2.4 m HLP Series, 2.4 m TKHL Series, 2.4 m TKH-T Series, 2.4 m TKH-TR Series, 2.1 m LLB Series, 2.7 m TK-H Series, 2.7 m TKH-T Series, 2.7 m TKHL Series, 2.7 m TKH-TR Series, 2.7 m TK-H Series, 3.0 m TKH-TR Series, 3.0 m TKH-T Series, 3.0 m TKHL Series, 3.0 m TK-H Series, 3.4 m TKHL Series, 3.4 m TKH-TR Series, 3.4 m TKH-T Series, 3.4 m TK-H Series, 3.7 m TKH-T Series, 3.7 m TKHL Series, 3.7 m TKH-TR Series, 3.7 m	900	AD, 2.4 m LA, 2.4 m LCH, 2.4 m LA, 2.7 m LCH, 2.7 m LA, 3.0 m LCH, 3.0 m CS Series, 2.4 m QCS Series, 2.4 m SSL Series, 2.4 m QCTL Series, 2.4 m WLA Series, 3.0 m

Self-Propelled, Dual Control (127.02.12.02)

CLASSIFIER	MAKE AND MODEL				
Sweeper Type	Allianz	Elgin	Schwarze Industries	Global Environmental	Johnston
Bottom Dump	RT 655 VT 650-1	Air Cub LX, 3.3 m ³ Crosswind, 6 m ³ Crosswind Fury, 6 m ³ Crosswind J, 6 m ³	A4 Storm, 3 m ³ A7 Tornado, 6 m ³ A9 Monsoon, 7 m ³		RT 655, 6 m ³ VT 651, 6 m ³ VT 801, 8 m ³
High Dump	3000 450 4000 MS-350 MT-350	Air Bear FL52H, 4.2 m ³ Broom Badger, 3 m ³ Broom Bear, 3.4 m ³ Eagle-1, 3.5 m ³ Eagle, 3.5 m ³ Pelican, 2.7 m ³ Pelican P Waterless Road Wizard, 3.5 m ³	A8 Twister, 4.4 m ³ M6 Avalanche, 3.8 m ³	Python S2000, 3.0 m ³ Python S2500, 3.8 m ³ Python S3000, 4.5 m ³	J3000, 4.3 m ³ J4000, 4.3 m ³
Vacuum	VT-650 VT-800	Crosswind, 6.0 m ³ Geo Vac, 6.0 m ³ Megawind, 6.0 m ³ Whirlwind, 6.0 m ³			605, 6.0 m ³

Brush Chipper, Tow Type (127.02.13.01)

CLASSIFIER	MAKE AND MODEL		
Minimum Net Flywheel Power kW	Bandit	Morbark	Vermeer
19	65 65XP 75 75XP	2050 2060-D	BC200XL BC600XL BC900XL
35	90 150		BC1000XL (Drum)
60	90XP 95XP 200 254 280	2012-D 2090-D 2070XL	BC1000XL BC1200XL
80	150 150XP 200 + 200XP 250 250XP 280 1390XP 1890 1990	2100-D 2400XL Storm 12	BC1200XL BC1500 BC1500XL BC1800XL
140	280XP 1890XP 1990XP		BC2100XL

Log Skidder, Cable/Grapple (127.02.13.02)

CLASSIFIER	MAKE AND MODEL					
Minimum Net Flywheel Power kW	Allied	Caterpillar	Franklin	John Deere	Tigercat	Timberjack
75	F65C	517 525B 525C		540G-II 540G III 548G II 548G-III		360DC 360DS 460D 460DC 460DS
120	H66DSC-II F68C	525C 527	170S2 185S2 Q70	640G III 640H 648G III 648H 648G III (2007) 748G III 784H 848G 848H	604 610	560DD 560DS 660DC 660DD
150		525D 535C 535D 545C 545D	Q80		625C 630C	

Generator, Gas or Diesel (127.02.14.01)

CLASSIFIER	MAKE AND MODEL										
Power kW	Caterpillar	Detroit Diesel Spectrum	Honda	MTU Onsite Energy	Yamaha	Wacker-Neuson	Multi-quip	Subaru	Magnum	Pramac	Doosan
0.5			EM2500CC EM3000CC EU1000iC EU2000iC EU3000iSCA Et1800XK1C Et2500XK1C EZ1800C EZ2500C EU 1000i EU 2000i EP 2500		EF1000 EF1000A EF1000iS EF1600 EF1600X EF2400iS EF2600 EF2600A EF2600X EF2800i EF3000iSE EF3000iSEB EF1000iS EF 2000iS EF 2000iSH EF 2000iSHC	GP2500A	GDP5HA GA25H				
3			EB3800XC EB5000iC EB5000XK2C EM3500XK1C EM3800SXC EM5000isCT EM5000XK1C EM5000SX2C EX50CC9 EZ3500C EZ3500XL1C EZ5000C EZ5000XL1C EM 3000 EU 3000iS EU 3000iK EB 4000		EF4000DX EF4500iSE EF4600A EF4600DE EF5200DE EF5200DEC EF 3000iS EF 3000iSEB EF 4500iSE	GP3800A		RG3200iS RGD 3300H RG 4300iS RGX4800			

127.03.14

PORTABLE GENERATING EQUIPMENT

Generator, Gas or Diesel (127.02.14.01)

CLASSIFIER	MAKE AND MODEL										
Power kW	Caterpillar	Detroit Diesel Spectrum	Honda	MTU Onsite Energy	Yamaha	Wacker-Neuson	Multi-quip	Subaru	Magnum	Pramac	Doosan
5	D8L1		EB6500XC EB7000iC EB11000C EM6500SXC EM6500SXKC ES6500K2CA EV6010 EX5500K2C EG 5000 EB 5000 EM 5000S EB 6500 EM 6500S EM 6500SI EG 6500 EU 6500is EU 7000is		EDL6500S EF6200PDEX EF6300iSDE EF6600A EF6600DE EF6600DEC EF12000DEX EF 5500DE EF 5500D EF 7200D EF 7200DE	GP5600A GP6600A GP9700V		RGX 6500 SGX 7500E RGX 7500E	MLG8	S6000 S7200 Whisperwatt GA97HEA	5
10	D12L1 D17L1 D20P1 D25P1 D30P3 D40P3 XQ35	20DSEJB 30DSEJB 40DSEJB	EX12DCC9	25JC6DT4 30JC6DT4 35JC6DT3 40JC6DT3		G14 G25 G50			MLG15 MLG25 MLG20 MMG25 MMG35		G25 G40
40	D50P3 D60P3 D75P3 XQ60	50DSEJB 60DSEJB 80DSEJB 80DSJB		50JC6DT3 60JC6DT3 75JC6DT3		G70			MMG45i MMG55 MMG75 MMG100		G70
80	D90P1 D100P1 D125P1 D150P1 XQ125	100DSEJB D125DSEJB 125DSEJB 150DSEJ		100JC6DT3 125JC6DT3 150JC6DT3		G100 G120 G150 G180			MMG130 MMG175		G85 G125 G185

127.03.14

PORTABLE GENERATING EQUIPMENT

Generator, Gas or Diesel (127.02.14.01)

CLASSIFIER	MAKE AND MODEL										
Power kW	Caterpillar	Detroit Diesel Spectrum	Honda	MTU Onsite Energy	Yamaha	Wacker- Neuson	Multi-quip	Subaru	Magnum	Pramac	Doosan
150	D200P4 3306 3406, 275 kW XQ200	180DSEJB 200DSEJB 230SEJB 275DSE		180JC6DT3 200JC6DT3 230JC6DT3 250JC6DT3 250XC6DT3		G240			MMG205		G240
250				275JC6DT3 275XC6DT3 300XC6DT3		G320			MMG330		G325
300	3406, 320 kW 3406, 365 kW XQ375	350DSE 400DSE		350XC6DT3 400XC6DT3					MMG480		G450
400	3412, 455 kW 3412, 545 kW	450DSE-4 500DS-4 600DS-4		450XC6DT3 550VC6DT2 600VC6DT2							G570
600	3412, 635 kW 3412, 725 kW XQ800	750DS-4 800DS-4 900DS-4		650XC6DT2 750XC6DT2 900XC6DT2							
910	3508B XQ1000	1000DS-4		1000XC6DT2							

Centrifugal, Dewatering, Including 6 m Suction and 7.5 m Discharge (127.02.15.01)

CLASSIFIER	MAKE AND MODEL						
Intake Size mm	AMT / Gorman- Rupp / IPT	Honda	Kodiak	Kosin America	Kubota	Multi-Quip	Wacker
25	1G4XAR 1G1XH	WX10C1 WX10K1C WX10TC WB15CA1 WH15XK1C1 WN15CX1 WX15CX1					
50	4222-95 4225-95	WB20XK2C WB20XT2C WB20XT3 WB30XKZC WB30XT2C WB30XT3 WD30XK2C WH20XK1JC1 WN20CX1 WN30CX1 WP20XCX6 WP30XCF6 WT20XK2C	PWP2HX PWP3HX	SEV50X SERH-80X	KVP20 KVP20S	QP204H QP205SH QP205SLT QP2H QP303H QP305SLT	PG2 PG2A PG3 PG3A
100			PWP4HX	SHE-100	KVP40	QP402H	

Centrifugal, Trash, Including 6 m Suction and 7.5 m Discharge (127.02.15.02)

CLASSIFIER	MAKE AND MODEL								
Intake Size mm	Atlas Pumps	AMT / Gorman- Rupp / IPT	Hatz Diesel	Honda	Kodiak	Kosin America	Multi-Quip	Vanguard	Wacker
38		11-1/2 A2-9 2S5XAR 3163-95 3930-95							
50		12D-GX160 2S5XHR 2S5XZR 3930-D5 3932-95	PT2H	WT20XK3C WT20XK4C	PWP2SWT	KTH-50X	QP202TH QP2TH QP2TZ QP3TH		PT2A PT2 PT2H
75		13D-GX270 3941-96 3943-96 3944-96 3S5XAR 3S5XHR 3S5XZR 3S9XAR 3S9XHR 3S9XZR	PT3H	WT30SXK4C WT30XK3C WT30XK4C	PWP3SWT	KTH-75X	QP301TH QP3TH QP3Ti QP3TZ		PT3A PT3 PT3H
100		14C2-F3L 14D-GX390 3993-96 3993-Z6 3994-96 4S13XAR 4S13XHR 4S13XZR		WT40XK1C WT40XK2C WT40XK3C	PWP4SWT	KTH-100	QP40TH QP4TH QP4TZ QP4TZT10P QP4TZTMP16F QP4TZTMPXF	PTS4V	APT4S APT4T PTS4V
150	CA6DP	16A2-F3L 5586-H6 5586-Y6 T6A60S4045T					MQ61DD MQ600H MQ600HTP HQ600HTB		APT6S APT6T PT6LS PT6LT
200	CA8DP								APT8S APT8T

Diaphragm, Including 6 m Suction and 7.5 m Discharge (127.02.15.03)

CLASSIFIER	MAKE AND MODEL					
Intake Size mm	AMT / Gorman- Rupp / IPT	Honda	Kodiak	Multi-Quip	Small Line	Wacker
50	2D-X75 336G-96	PDT2A		MQ206H MQD2H		PDT2A PDT2
75	3D-13 3D-GX160 335A-96 335G-96 335H-96 335Z-96	PDT3A WDP30XK2AT	Pwp35md	MQ306H MQD3H		PDI3A PDT3 PDT3A PDT3AA
100	4D-E3 4D-E3-3P 4D-X3-1P 4D-X3-3P				PL4DDP-K SL4DDPHE SL4DDPYE	

Electric Submersible, Including 30 m Cable and 7.5 m Discharge, Excluding Generator (127.02.15.04)

CLASSIFIER	MAKE AND MODEL									
Intake Size mm	Flygt	Claeson	Grindex	AMT / Gorman- Rupp / IPT	Honda	Kodiak	Kosin America	Multi-Quip	Tsurumi	Wacker
50	2610 2620 3085	Mine He	MINEX MINOR H MASTER H MINETTE SALVADOR TUFF ONE	5771-95 5773-95 5777-95 577A-95 577B-95	WSP50AA WSP100AA	PSP200SSD	PB-65011 PB7-65011 PX-65011 PXL-65011	PX400 SS233 SS2038P ST2005CUL2 ST2010CUL ST2037 ST2037F ST2047 ST2040T ST3020BCUL ST3050D	LB480 LB800	ASP 400 PS2-1503 PS2-2203 PS2-400 PS2-500 PS2-501 PS2-750 PS2-800 PS2-801 PS3-1500 PS3-1501 PS3-2200 PS3-2203 PS3-3703 PS3-5503 PSA2-500 PSA-800 PSG2-500 PST2-400 PST2A-800 PST3-750 PST3-751 PSTF2-400 PSTF3-750 PSTF3-751 PSW3-1500 PSW3-1501 STP 400 STP 750
100	3102 2125		MAJOR H MAXI H MIDI H MAJOR N MASTER N MINOR N SANDY SEMI SENATOR SENIOR	577D-95 577E-95 S3A1				ST41230 ST41460		PS4-5503 PS4-7503HH PS4-11003HH
150	3152 2201		MATADOR H MASTER L MATADOR N MAXI N MIDI N	S6D1- E30				ST61230 ST61460		
200	3202 2250		MAXI L							

DC Arc Welder, Engine Driven, Including Rods (127.02.16.01)

CLASSIFIER	MAKE AND MODEL			
Current A	Lincoln	Miller	Multi-Quip	Thermal Arc / Red-D-Arc
125	Bulldog 5500 K2707-2 Outback 125 Power Arc 5500 Power Arc 5501-1 Weldan Power Weldan Power 125-1	Blue Star 145 Blue Star 145-K Cat Pro 300		Scout TA-4/170H
150	K2706-2	Blue Star 145-1 Blue Star 185 Blue Star 185 DX Blue Star 185DX-K Blue Star 6000 Bobcat 225 NT		
200	Ranger GXT Ranger 8, Honda Engine Ranger 8, Kohler Engine Ranger 8, Onan Engine Ranger 9 Ranger 225 Ranger 250 GTX Ranger 250, Kohler Engine Ranger 250, Onan Engine	Bobcat 225 Bobcat 250CH Bobcat 250EFI Bobcat 250GFGI Bobcat 250 NT, Diesel Bobcat 250 NT, Gas Bobcat 3-Phase Trailblazer 275	DW225SSAWR SDW225SS	GX200
300	Classic 300G Classic 300D Commander 300 K2409-3 Pipeliner 200G Ranger 305 D-1 Ranger 305G SA-250 SAE 300 Vantage 300	Legend 301G Legend 302 Trailblazer 301D Trailblazer 301G Trailblazer 302 Trailblazer 325 Trailblazer Pro 350D	DLW300ES DLW300ESA DLW300ESAWR	D300K3 GX300 Lincoln
400	Big Red 500 K2325-2 SAE-400 SAE-500 Vantage 300 Vantage 400 Vantage 500 Vantage 500 Deutz	Big Blue 40P Big Blue 251D Big Blue 300 Big Blue 300 Pro Big Blue 302 Big Blue 350 Pipe Pro Big Blue 400 Big Blue 400 Pro Big Blue D400 Big Blue 402 Big Blue 450 D CST Big Blue 500 Big Blue 500 Pro Big Blue 700 Duo Big Blue 800 Pro Big Blue 800 Airpak Big 40 Cat CC Miller Du-op Pro 300 Pipe Pro 304	DLW400ES DLW400ESA DLW400ESAWR DAW500SA DAW500SAWR	D302K DX450 D550KHO

Oxygen/Acetylene Torch, Including Gas, Excluding Rods (127.02.16.02)

CLASSIFIER	MAKE AND MODEL				
Equipment Type	Blueshield	Prostar	Purox	Smith	Victor
Hand Mobile, Heavy Duty	BLU 01300008 BLU 01300012 BLU DUOKIT 510	PRS21506 PRS21512	GT 350 Deluxe GT 510FG E Master Deluxe HD	LE 200 Kit LE 300 Kit LE 400HD	Cutskill 0384-2500 DLX G350-540/510 Journeyman II Journeyman 450 Journeyman 540/300 SuperRange II 0384 315FC ST2630FC Torch Vanguard XHD 510

127.04 NON-CURRENT EQUIPMENT, SCHEDULE OF RENTAL RATES FOR CONSTRUCTION EQUIPMENT

127.04.01 Air Equipment

127.04.01.01 Air Track, Crawler Mounted, Excluding Compressor, Excluding Drill Steel and Bits

Hole Diameter, mm	
≤ 100	37.15
> 100	50.45

127.04.04 Concrete Equipment

127.04.04.01 Air Breaker, Boom Mounted, Excluding Points

Rated Energy, joules	
600	5.30
900	10.10
2,200	21.50

127.04.04.02 Saw, Self-Propelled, Excluding Blades

45, Curb-Trailer, Self-Contained	51.75
157, Curb-Truck, Self-Contained	83.90

127.04.05 Crushing Equipment

127.04.05.01 Roll Crusher, Excluding Power Unit

Roller Size, m	
1.00 x 0.75	161.30
1.05 x 1.00	185.80

127.04.06 Earth Moving, Grading Equipment

127.04.06.01 Motor Grader, Rigid Frame

Minimum Operating Weight, kg	
11,500	44.40
14,500	52.15
17,000	72.30

127.04.07 Excavation Equipment

127.04.07.01 Clams, Draglines, Shovels, Crawler Mounted, All Cable

Minimum Operating Weight, kg	
27,000	154.05
40,000	186.50
60,000	209.55
75,000	246.90

127.04.08 Haulage Equipment**127.04.08.01 Rear Dump, Tandem Rear Axle, Diesel or Gas**

AGW, kg	
20,000	65.30
22,000	76.60
22,000 kg Stone Spreader	80.40
24,000 kg Stone Spreader	83.20

127.04.11 Drilling Equipment**127.04.11.01 Mechanical Drilling Equipment, Carrier Mounter, Including Auger**

Power, kW	
95	111.70
113	200.70
130	289.90
150	417.30
185	498.15

127.05 NON-CURRENT EQUIPMENT, MANUFACTURERS' MODEL, SPECIFICATION, AND CAPACITY REFERENCE GUIDE

Note: Each table has a number in parentheses as part of the table title that refers to the corresponding clause in Section 4 - Non-Current Equipment, Schedule of Rental Rates for Construction Equipment.

127.05.06 Earth Moving, Grading Equipment**Motor Grader, Rigid Frame (127.04.06.01)**

CLASSIFIER		MAKE AND MODEL		
Minimum Operating Wt. kg	Minimum Net Flywheel Power kW	Champion	Fiat-Allis	Galion
11,500	125		FG 85	
14,500	135	720 730	FG 95	T 500C
17,000	185	740 760 750-780		T 600C

127.05.07 Excavation Equipment

Clams, Draglines, Shovels, Crawler Mounted, All Cable (127.04.07.01)

CLASSIFIER		MAKE AND MODEL		
Min. Operating Weight kg	Size kW	American	Linkbelt	Manitowoc
27,000	1.1		LS-98D LS-108C	M50
40,000	1.3	5220	LS-138	
60,000	1.5	7225	LS-208H 11	M65 M80
75,000	1.9		LS-218H	

127.05.11 Drilling Equipment

Mechanical Drilling Equipment, Carrier Mounted, Including Auger (127.02.11.02)

CLASSIFIER	MAKE AND MODEL	
Power KW	Reedrill	Watson
95	Texoma 330 Texoma 500	
113	Texoma 600 Texoma 700 Texoma 800	2500
130		2500 3110
150	Texoma 900	3000 3100
185	Magnum XL	



**CONSTRUCTION SPECIFICATION FOR
SITE PREPARATION FOR PIPELINES, UTILITIES,
AND ASSOCIATED STRUCTURES**

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490-A	Commentary
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490.01 SCOPE

This specification covers the requirements of site preparation for the installation of sanitary and storm pipe sewers, pipe culverts and end sections, forcemains and associated appurtenances, watermains and associated appurtenances, and other underground Utilities; maintenance holes, catch basins, ditch inlets, or valve chambers; and any other specified subsurface construction.

490.01.01 Specification Significance and Use

This specification has been developed for use in provincial and municipal-oriented Contracts. The administration, testing, and payment policies, procedures, and practices reflected in this specification correspond to those used by many municipalities and the Ontario Ministry of Transportation.

Use of this specification or any other specification shall be according to the Contract Documents.

490.01.02 Appendices Significance and Use

Appendices are not for use in provincial contracts as they are developed for municipal use, and then, only when invoked by the Owner.

Appendices are developed for the Owner's use only.

Inclusion of an appendix as part of the Contract Documents is solely at the discretion of the Owner. Appendices are not a mandatory part of this specification and only become part of the Contract Documents as the Owner invokes them.

Invoking a particular appendix does not obligate an Owner to use all available appendices. Only invoked appendices form part of the Contract Documents.

The decision to use any appendix is determined by an Owner after considering their contract requirements and their administrative, payment, and testing procedures, policies, and practices. Depending on these considerations, an Owner may not wish to invoke some or any of the available appendices.

490.02 REFERENCES

When the Contract Documents indicate that provincial-oriented specifications are to be used and there is a provincial-oriented specification of the same number as those listed below, references within this specification to an OPSS shall be deemed to mean OPSS.PROV, unless use of a municipal-oriented specification is specified in the Contract Documents. When there is not a corresponding provincial-oriented specification, the references below shall be considered to be to the OPSS listed, unless use of a municipal-oriented specification is specified in the Contract Documents.

When the Contract Documents indicate that municipal-oriented specifications are to be used and there is a municipal-oriented specification of the same number as those listed below, references within this specification to an OPSS shall be deemed to mean OPSS.MUNI, unless use of a provincial-oriented specification is specified in the Contract Documents. When there is not a corresponding municipal-oriented specification, the references below shall be considered to be the OPSS listed, unless use of a provincial-oriented specification is specified in the Contract Documents.

This specification refers to the following standards, specifications, or publications:

Ontario Provincial Standard Specifications, Construction

OPSS 201	Clearing, Close Cut Clearing, Grubbing, and Removal of Surface and Piled Boulders
OPSS 206	Grading
OPSS 412	Sewage Forcemain Installation in Open Cut
OPSS 441	Watermain Installation in Open Cut
OPSS 706	Traffic Control Signing
OPSS 801	Protection of Trees
OPSS 802	Topsoil
OPSS 805	Temporary Erosion and Sediment Control Measures

490.03 DEFINITIONS

For the purpose of this specification, the following definitions apply:

Associated Appurtenances means as defined in OPSS 412 for a sewer system, and OPSS 441 for a watermain.

490.07 CONSTRUCTION

490.07.01 General

Site preparatory work shall be performed prior to the installation of the pipelines, Utilities, and associated structures.

490.07.02 Removal of Existing Signing

Removal of existing signing shall be according to OPSS 706.

490.07.03 Clearing and Grubbing

Clearing and grubbing and related work shall be according to OPSS 201.

490.07.04 Shrub and Tree Relocation

Shrubs and trees to be relocated shall be protected according to OPSS 801 in their original and final locations.

Shrub and tree relocation shall be as specified in the Contract Documents.

490.07.05 Tree Protection and Pruning

Tree protection and pruning shall be according to OPSS 801.

490.07.06 Stripping and Stockpiling Topsoil

Stripping of topsoil shall be according to OPSS 206. Topsoil shall be removed carefully in the Work Areas and shall not be mixed with subsoil or other materials.

Stockpiling of topsoil shall be according to OPSS 802 and as specified in the Contract Documents. Topsoil shall not be placed in or near tree stands, along flood plains, and in areas containing natural wildlife habitats. Perimeter drainage ditches shall be constructed to intercept and divert run-off to adjacent settling ponds. Temporary erosion and sediment control measures shall be according to OPSS 805. Stockpiles shall be protected to ensure minimum environmental interference.

490.07.07 Removal of Fences and Guide Rails

Property owners or occupants shall be given at least 24 hours notice in advance of dismantling fences. Fences and guide rails shall be dismantled, where necessary. All components that are broken, bent, or damaged as a result of the operation shall be removed from the site and replaced with new components. All reusable components shall be stored and protected.

490.07.08 Management of Excess Material

Management of excess material shall be according to the Contract Documents.

490.10**BASIS OF PAYMENT**

Payment at the Contract price for the appropriate tender items for the installation of sanitary and storm pipe sewers, pipe culverts and end sections, forcemains and associated appurtenances, watermains and associated appurtenances, and other underground Utilities; maintenance holes, catch basins, ditch inlets, or valve chambers; and any other specified subsurface construction shall be full compensation for all labour, Equipment, and Material to do the work of site preparation.

When the Contract contains separate items for work required by this specification, payment shall be at the Contract prices and according to the specifications for such work.

Appendix 490-A, November 2010
FOR USE WHILE DESIGNING MUNICIPAL CONTRACTS

Note: This is a non-mandatory Commentary Appendix intended to provide information to a designer, during the design stage of a contract, on the use of the OPS specification in a municipal contract. This appendix does not form part of the standard specification. Actions and considerations discussed in this appendix are for information purposes only and do not supersede an Owner's design decisions and methodology.

Designer Action/Considerations

The designer should specify the shrub and tree relocation and planting requirements in the Contract Documents. (490.07.04)

The designer may choose to specify a specific location for stockpiled topsoil in the Contract Documents. (490.07.06)

If separate items are required to cover the various components of site preparation, they should be included in the Contract Documents.

The designer should ensure that the General Conditions of Contract and the 100 Series General Specifications are included in the Contract Documents.

Related Ontario Provincial Standard Drawings

No information provided here.



NOTICE TO USERS OF OPSS 903

CONSTRUCTION SPECIFICATION FOR DEEP FOUNDATIONS

OPSS 903 has been removed from this
OPS volume

The provincial version of OPSS 903 is now in:

OPS Volume 5,
Provincial-Oriented
General and Construction Specifications
and designated as OPSS.PROV 903

The municipal version of OPSS 903 is now in:

OPS Volume 7,
Municipal-Oriented
General and Construction Specifications
and designated as OPSS.MUNI 903

**USE OF EITHER OF THE SPECIFICATIONS IS AS SPECIFIED
IN THE CONTRACT DOCUMENTS**

