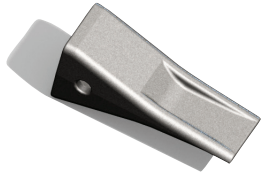
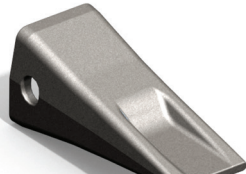


Ground Engaging Tools

CATERPILLAR® STYLE BUCKET TEETH



1U-3202 Long Tooth



1U-3352 Long Tooth

Specifications				
Part Number	Description	Style	Weight	Family
162584	1U-3202	Long	2.9	J-200
162283	1U-3202-T	Tiger	2.4	J-200
162278	1U-3202-WT	Twin Tiger	3.0	J-200
162581	1U-3302	Long	10.4	J-300
133113	1U-3302-TL	Tiger	9.3	J-300
133114	1U-3302-WTL	Twin Tiger	10.7	J-300
162580	1U-3352	Long	14.3	J-350
162512	1U-3352-T	Tiger	16.5	J-350
162579	1U-3352-WT	Twin Tiger	16.7	J-350
162586	9W-8452	Long	26.2	J-460
162286	1U-3452-WT	Twin Tiger	33.1	J-460
162588	9W HD-8452	Long	27.00	J-460

CATERPILLAR® STYLE PIN FASTENERS



Specifications		
Part Number	Description	Family
162550	9W-7112-P/8E-6208	J-200
162771	9J-2308	J-300
162765	8E-6358/9W-2678	J-350
162584	8E-5558	J-550
162553	PIN, CAT, 460, 8E-0468P, AM	J-460

CATERPILLAR® STYLE WELD-ON ADAPTERS



3G-8354P

162661

Specifications				
Part Number	Description	Family	Type	Weight
165349	3G-6304	J-300	7	15.7
162661	3G-8354	J-350	8	20.3
165366	8E-6464	J-460	7	46.1
163049	Nose Piece [6327-8452] 1U-8452P	J-460		
165344	4T-1204	J-200	4	4.4

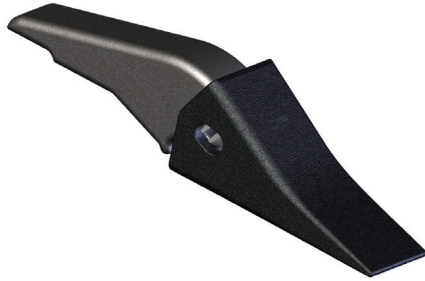
CATERPILLAR® STYLE RETAINERS

Specifications		
Part Number	Description	Family
162555	8E-6209 Sleeved	J-200
162556	8E-6259 Sleeved	J-225/250/300
162557	8E-6359 Sleeved	J-350
162559	8E-8469 Sleeved	J-460

Photos may not feature the most current design.
Materials and specifications subject to change without notice.

Ground Engaging Tools

H&L® STYLE ASSEMBLIES



CL-1001-230 Assembly
(162499) Contains:
1. 230 Standard Tooth
2. 2350 Flex Pin
3. CL-1001-230 Adapter

Specifications	
Part Number	Description
136638	12L6DW-8-20AH Cast (116703, 165566, 136291)
136682	D-862-20AH Cast (136699, 165566, 136291)
136687	D-862-20AH TUF-GO (136699, 250100)
136679	5834-30CH (161937, 250260)
136636	2740ZW-230 Forged (161923, 162305, 162800)
162569	230-J-I Cast (161860, 162305, 162800)
162499	CL-1001-230 Cast (136683, 162305, 162800)
162498	CL-1001-230 Forged (136683, 162304, 162800)
162504	CL-1001-230 (136683, 165565, 162800)
162502	CL-1002-230 Forged (136684, 162304, 162800)
136681	TB-1001-230 Cast (138251, 162305, 162800)
138257	TB-1001-230 (138251, 165565, 162800)

H&L® STYLE CAST BUCKET TEETH



20-AH



230 Standard

Specifications			
Part Number	Description	Style	Weight
165566	20-AH	20AH with hole	1.1
162305	230	Standard	3.0
165565	230	Cast	2.0
162341	230	Tiger	3.2
162297	230	Twin Tiger	3.2
250142	230	Star	2.8
250172	230-F	Flare	2.9
162309	240	Standard	4.7
162314	250	Standard	6.7

H&L® STYLE FORGED BUCKET TEETH



230-WT Forged

Specifications			
Part Number	Description	Style	Weight
162304	230	Standard	3.2
162300	230-ST	Star	2.8
162340	230-T	Tiger	2.5
162295	230-WT	Twin Tiger	3.0

H&L® STYLE TUF-GO BUCKET TEETH



20AH Tuf-Go



30C Tuf-Go

Specifications		
Part Number	Description	Style
250001	175	Scarifier Tooth
250010	1-LO	Scarifier Tooth
250100	20-AH	Standard
250140	230	Standard
250260	30C	Standard

H&L® STYLE UNI-TOOTH BOLT ON



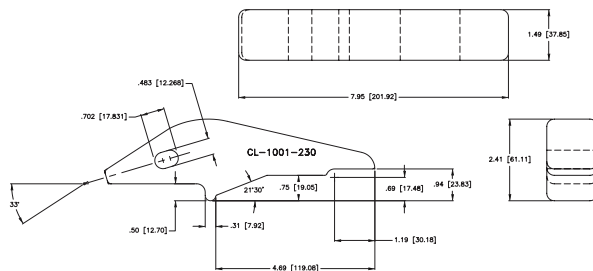
Specifications			
Part Number	Description	Type	Weight
162495	XH-660 1/2" Lip	8	3.6
136701	5/8"	8	3.6

H&L® STYLE FLEX PINS



Specifications	
Part Number	Description
136290	20-AH Roll Pin
136291	20-AH Grooved Pin
162800	230 Standard Flex Pin
162805	2450 Flex Pin
162810	2550 Flex Pin

H&L® STYLE ADAPTERS

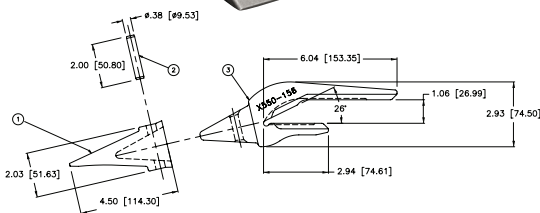


Specifications			
Part Number	Description	Type	Weight
161942	5835Y 20-AH	2	1.4
136699	D-862-2A 20-AH	1	1.4
136703	12L6DW-8-2A	3	2.5
161937	5834 30-CH 30° Bevel	2	2.9
161861	230-J-75 3/4"	4	3.4
161860	230-10 Cast Double 1"	4	3.4
161923	2740Z230P Cast Double 1"	4	4.0
161926	5282-230 Forge Double 1"	4	3.0
136683	CL-1001-230	3	3.8
161899	831-230P Bottom Strap	2	3.4
138251	TB 1001-230 Tooth Bar	5	4.7

HENSLEY® STYLE ASSEMBLIES



1. X156 Parabolic Short Tooth
2. P-156 Pin
3. 550 x 156 Parabolic Adapter



Specifications	
Part Number	Description
136633	156-62 156-H (161929, 134759, 134788)
136632	156-75 156-H (161930, 134759, 134788)
136622	156-62 BACKHOE (161292, 136715, 134788)
138229	TB1001-156-L (138252, 134785, 134788)
138258	X550-156S Backhoe (138241, 136715, 134788)

Photos may not feature the most current design.
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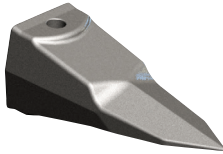


Ground Engaging Tools

HENSLEY® STYLE PARABOLIC BUCKET TEETH



**X290 Standard
210015**



**X156-T Tiger
134786**



**X330-WT Twin Tiger
210031**

Specifications			
Part Number	Description	Style	Weight
136715	X156	Short	1.9
134785	X156-L	Long	2
134759	X156-H	Heavy Duty Long	2.8
134786	X156-T	Tiger	1.9
134787	X156-WT	Twin Tiger	3.2
250267	TTH, HEN, 156, XONG, X156P	Kubota Dimensions	3.6
250268	TTH, HEN, 156, FLARE, X156F, AM, 4.25	Kubota Dimension	2.8
210009	X220	Standard	6.8
210011	X220-T	Tiger	6.2
210013	X220-WT	Twin Tiger	8.6
210012	TTH, HEN, 220, FLARE, X220-F	Flare	
210015	X290	Standard	8.1
210017	X290-T	Tiger	8.1
210019	X290-WT	Twin Tiger	9.9
210027	X330	Standard	11.6
210029	X330-T	Tiger	11.2
210031	X330-WT	Twin Tiger	14.7
210033	X400	Standard	16.0
210035	X400-T	Tiger	15.0
210085	X410	Standard	21.7
210091	X450	Standard	28.2
210095	X450-T	Tiger	31.3

HENSLEY® STYLE FASTENERS

Specifications	
Part Number	Description
210053	P-160 160/200/310 Roll Pin
210051	P-290 290 Parabolic
210055	P-330 330 Parabolic
210057	P-400-HD 400 Parabolic
210060	P-410 410 Parabolic
210558	P-450 450 Parabolic
210059	P-475 475 Parabolic
134788	P-156 Roll Pin

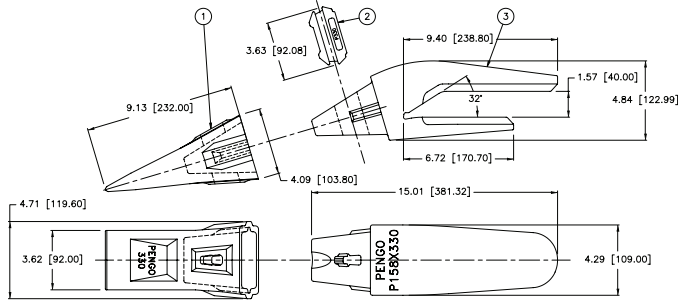
Use 5/16" Punch to Remove P-156 Roll Pin

HENSLEY® STYLE WELD-ON ADAPTERS

158 x 330 Assembly

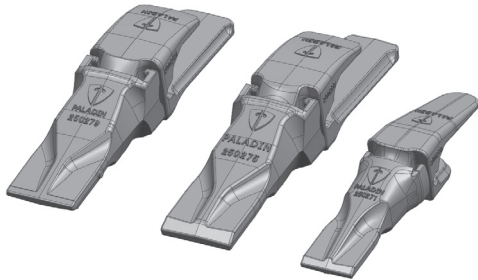
(210162) Contains:

1. 210027 X330 Tooth
2. 210055 P-330 Parabolic Pin
3. 210162 158 x 330 Parabolic Adapter



Specifications			
Part Number	Description	Type	Weight
161929	156-62 5/8" Strap 1/2	4	3.5
161918	2470-Z-156 1" Strap 1/2	4	4.5
138241	550 X 156 1" Strap 1/2	4	4.5
161900	834-156 Bottom Strap	2	4.5
138252	TB1001-156 Toothbar	5	4.7
210154	109 x 220 1-1/4"	4	16.1
210156	127 x 290 1-1/4"	4	21.5
210158	158 x 290 1-1/2"	4	22.1
210162	158 x 330 1-1/2"	4	34.3
210164	940 x 370 2"	4	36.4
210166	802 x 400 2"	4	48.0
210168	940 x 410 2"	4	43.4

ESCO® STYLE ASSEMBLIES

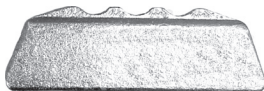


Specifications	
Part Number	Description
250270	V-23 (3880)
250274	V-33 (5885)
250278	V-43 (5886)

ESCO® STYLE BUCKET TEETH

Specifications	
Part Number	Description
250271	V-23
250275	V-33
250279	V-43

ESCO® STYLE PINS



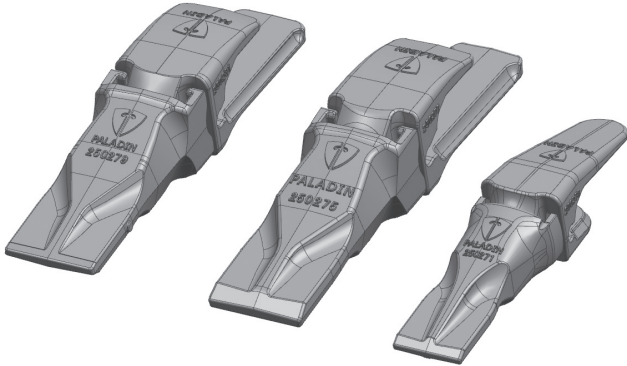
E-18/20-PN Pin
167125

Specifications	
Part Number	Description
167125	E-18/20-PN
250272	V-23
250276	V-33
250280	V-43
167085	Conical Style
167126	Rubber Lock for 167085

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Ground Engaging Tools

ESCO® STYLE ADAPTERS

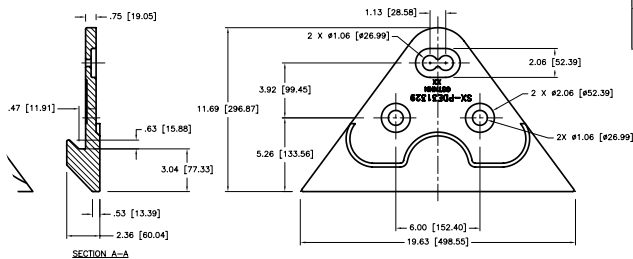


Specifications			
Part Number	Description	Lip Thickness	Weight
250273	V-23 (5849)	1.25"	
250277	V-33 (5855)	1.5"	
250281	V-43 (5856)	2"	
134701	[833-18]		3.4

SIDE CUTTERS



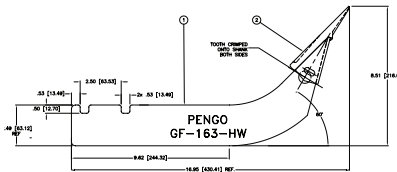
Specifications			
Part Number	Description	Style	Weight
506132	T1156A	ESCO - 6 Bolt	60
506133	T1157A	ESCO - 6 Bolt	60
504102	096-4748	Caterpillar - 4 Bolt	25.4
504103	096-4747	Caterpillar - 4 Bolt	25.4
504029	B330 RH	Hensley - 4 Bolt	50
504028	B331 LH	Hensley - 4 Bolt	50
506130	CE-17748 3L	ESCO - 3 Bolt	45
506131	CE-17748 3R	ESCO - 3 Bolt	45
506129	PDE 31329P	ESCO - 3 Bolt	37



SCARIFIERS



Scarifier Assembly
(553422) Contains:
1. GF-163 175 Shank
2. Tuf-Go 175 Tooth



Specifications		
Part Number	Description	Weight
250001	TUF-GO 3/4" Crimp	1.2
250010	1LO 1" Crimp-on Scarifier Tooth	1.9
165564	210 1" Pin-On Scarifier Tooth	2.4
162594	2D-5575 HD Scarifier Tooth	3.5
162943	GH-163-175 Shank	8.5
165572	E039 Clip Spring 3/4	0.1
162946	GF-163-HW 175 Shank	8.2
553422	GF-163 175 Assembly	11.1

TOOLS



Specifications	
Part Number	Description
PRT 156	Hensley Long Handle Style Pin Removal Tool
PRT 160	Hensley Long Handle Style Pin Removal Tool
PRT 290	Hensley Long Handle Style Pin Removal Tool
210045	230 Series H&L Flex Pin Removal Tool*

Ground Engaging Tools

HOW TO IDENTIFY A TOOTH



What is the make and model number of machine the bucket is on?

Is it on a Caterpillar, Kubota, Bobcat, Kobelco, Komatsu, Case, etc?

What type of machine is it?

Is it on a loader, excavator, backhoe, etc?

Is there a tag on the bucket with the bucket manufacturer and serial number?

Does the tag list the style of teeth?

How does the tooth attach to the adapter?

Does the tooth slide onto the nose of the adapter?

Does the tooth twist onto the nose of the adapter?

Does the tooth bolt directly to the cutting edge?



Where is the hole in the tooth?

Is it on the top of the tooth or the side of the tooth?

Is the hole in the center of the top of the tooth or the side of the tooth?

What does the hole in the tooth look like?

Is the hole round, rectangular, or oval?

Is there more than one place for the fastener to hold the tooth onto the adapter?

What does the fastener look like that holds the tooth onto the adapter?

Is the pin two metal pieces with rubber in between?

Does the pin have tabs at the ends or no tabs?

Is the pin all metal, flat on one edge and serrated on the other?

Is there a long pin with a groove that drives into a split washer?

Is the fastener made of rolled steel?

Does the pin look like a horseshoe?

Does the pin contain rubber and rectangular in design?

Is the tooth a Unitooth (Mono Tooth)

Is it a one piece tooth and adapter that bolts directly to the cutting edge?



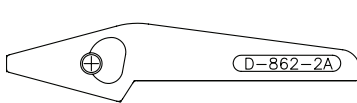
CL-1001-230 Weld-On
Skid Steer Assembly
Part No. 162499

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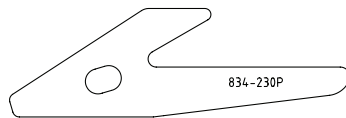
Paladin Cross Reference Chart

Description	Paladin	Case	Deere	JCB	Kubota	Takeuchi	Terramite	Bobcat
156	136715	ZJZ156SP	TX156	549/AD156	70090-32083	1914210182	10500	6716001
156 Long	134785	86109127	PMX156L	549/AD156L	70090-32086		10591	6728801
156 Tiger	134786	ZJZ156ST	TT156	549/AD156T	70090-32089		10590	6671147
156 Twin Tiger	134787	ZJZ156CTT	PMX156WTL	549/AD156WT	70090-32090	1914299142		6671148
P-156 Roll Pin	134788 A	ZJZ156PN	TP156	549/P156F	70090-32084	1914210183	10530	6671145
20AH Crimp On	250100	T41166	T2A	549/08002A		U111500002		6682026
230 Cast	162305	442677A1	T23C	980/33601	70090-33101	1914200230		6657330
230 Tiger	162341	251474	TT230L	Tiger/1	70090-33104			6657328
230 Twin Tiger	162297	D140561	T230WTL	Tiger/2	70090-33105			6657329
230 Star	250142	B96108	T230ST		70090-33106			
23 Flex Pin	162800	245466A1	T23P	980/33603	70090-33107	1914200023		6567620
290	210015	122668A1	TX290					
290 Tiger	210016 SM	126934A1	TT290					
290 Twin Tiger	210020 SM	126936A1	TX290WT					
P-290 Flex Pin	210051		PMP290					
330	210027	122674A1	TX330					
330 Tiger	210029	126943A1	TT330					
330 Twin Tiger	210029	126946A1	TX330WT					
P-330 Flex Pin	210055		PMP330					
18TL	167085 A	167085	PM18TL			1914200182		
18 PN Pin	167125		PM18PN		70090-33094	1914200183		
18 LK Lock	167126 A		PM18LK		70090-33095	1914200183		
XH 660 Unitooth	162495				70090-32371	0136209900		

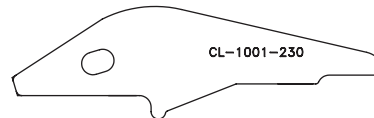
Adapter Types



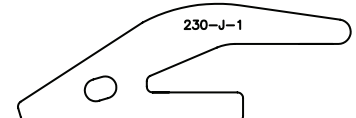
Type 1
Bottom Mount



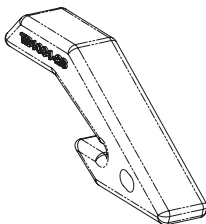
Type 2
Bottom Mount with hook



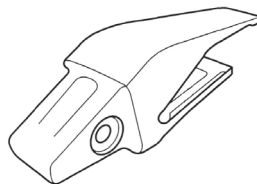
Type 3
Flush Mount



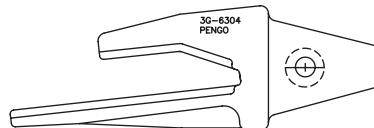
Type 4
Leg & Half
Full Top; 1/2 Bottom



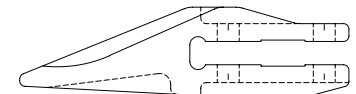
Type 5
Tooth Bar Adapter



Type 6
Loader Adapter
Full Top; 3/4 Bottom



Type 7
Excavator Adapter
3/4 Top; Full Bottom



Type 8
Bolt-On Adapter

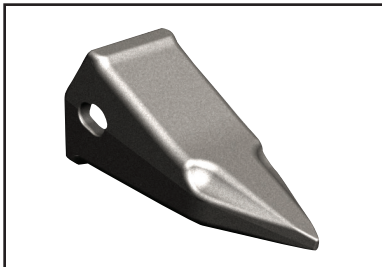


Ground Engaging Tools

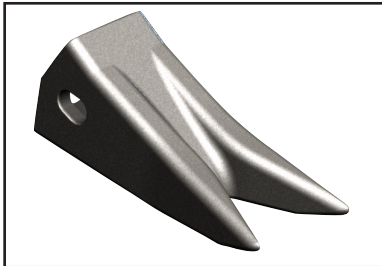
TOOTH USAGE



Standard (Sharp) is used for general digging conditions for both loaders and excavators.



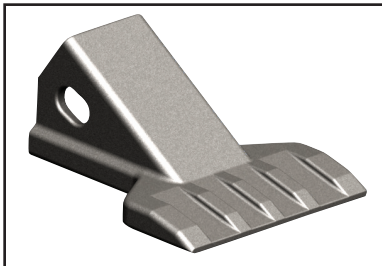
Tiger is single point excavator tooth used for penetrating compact soil conditions such as frost or Caliche. (Generally placed on the inside positions of the bucket)



Twin Tiger is a double pointed excavator tooth used for penetrating compact soil conditions such as frost or Cliché. This is generally placed on outside positions of the bucket.



Star Tooth is a heavier duty excavator tooth with a rib and not quite as pointed as a tiger tooth. This tooth has a rib that self sharpen the tooth and creates a longer wearing product.



Flare tooth is used on an excavator bucket and is positioned close together for smooth bottoms in trenches or footers. It is not a good digging tooth for rock or compact soils.

Adapters are specially designed for use on either excavators or loaders. There are several designs for both applications. Lip thickness plays a part in which adapter can be used.

All manufacturer's names, numbers, symbols and descriptions are for reference purposes only, and it is not implied that any part listed is the product of these manufactures.