



FORESTRY
WORK TOOLS



A close-up photograph of a red hydraulic forestry grapple. The grapple is shown in profile, gripping a large, rough-barked log. The background is a clear blue sky and a dense forest of green trees. The grapple's arm is red, and the grapple head is black with a silver hydraulic cylinder. The text 'TWIN CYLINDER FORESTRY GRAPPLES: LOG ON!' is overlaid in white, bold, sans-serif font on the right side of the image.

TWIN CYLINDER FORESTRY GRAPPLES: LOG ON!

How does less service and more uptime grab you? For more than 30 years, Pierce has been manufacturing hydraulic forestry grapples using input from professional loggers like you. As machinery and loggers get stronger, so do our grapples. The result is a product that does all the things you need it to do, easily and efficiently. Pierce twin cylinder forestry grapples feature powerful 360° continuous rotation and are multi-purposed for excellent versatility. They feature an optimum arm shape for big wood, tight grapple closure for superior small log control, load check valves to eliminate the risk of dropping your payload, and heavy-duty legs that possess the optimum shape for shovel logging, loading, unloading and sorting.

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GENERAL:

- 30 years and thousands of Pierce grapples in operation prove our superior design in extreme North American timber and conditions.
- Superior payload capacity.
- Utilized by road builders, forestry and logging contractors, millyards and sortyards.

STRUCTURE:

- Resilient, wear and impact-resistant steel used throughout.
- Precision machining provides proper fit and interchangeability of replacement components.

GRAPPLE ARMS:

- Heavy-duty grapple arms designed for the rigors of shovel logging, loading, sorting and multi-stem handling.
- Single center pivot pin design requires less maintenance and offers small grapple closure.
- Grapple's arm shape allows for easy and gentle digging into log decks.
- Small grapple closure for superior single-stem handling.
- Handles tree length or cut stems.
- Logs roll up into "throat" for greater payload control, regardless of log diameter.
- Hardened, wear-resistant grapple arm tips.

PINS & BUSHINGS:

- Oversized, induction hardened, heat treated, and chromed pins.
- Aluminum bronze bushings for extended lubrication and greasing intervals.

ROTATION:

- 360° continuous rotation.

CYLINDERS:

- Sized to recommended machine operating pressure.
- Load check valves reduce risk of losing your payload in the event of a pressure loss.
- High-pressure piston seals.
- Heavy-duty protection of both arm cylinders.

HYDRAULIC SYSTEM:

- Completely enclosed hydraulics with easy serviceability behind bolt-on service covers.

MAINTENANCE:

- Component commonality between all Pierce TC models for ease of serviceability and support. A benefit for customers that have multiple grapples.
- Simple design allows for easy servicing and maintenance.



FORESTRY GRAPPLE LINKS.

A SELECTION OF GRAPPLE LINKS ARE AVAILABLE TO PROPERLY SUIT ALL BRANDS OF MACHINES.



DOGBONE

















THROUGH-THE-SNOOT
(Requires through the snoot heel rack)

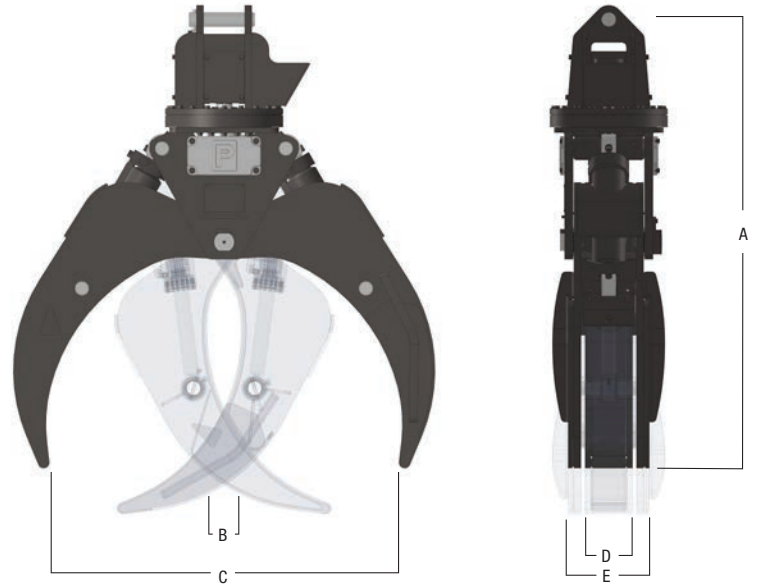


Y-LINK
For "male style" stick tip
(i.e. excavator or droop nose stick)

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		TL46
		TL52
		TL58
		TL60
		TL63
		TL66
		TL68

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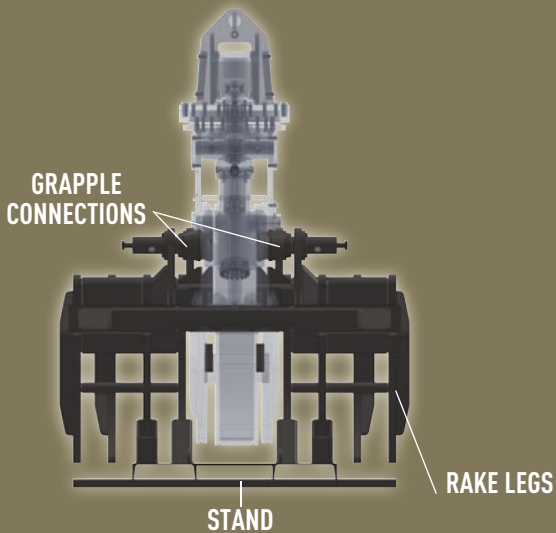


PIERCE BRUSH RAKE.

- Designed for heavy-duty brush piling.
- Use with your Pierce forestry grapple, eliminate the need for a separate, dedicated brush grapple.
- Heavy-duty stand and mounting connections included for easy attach/detach.
- Simple pin-on design allows one-man mount/dismount in minutes.

GRAPPLE MODEL	TC46	TC52	TC58	TC60	TC63	TC66	TC68
OVERALL HEIGHT OPEN <small>(Excluding Link)</small> (A)	71"	72"	76"	78"	77"	80"	83"
MINIMUM OPENING (B)	4"	4.5"	7"	7"	6.5"	8.5"	7.5"
MAXIMUM OPENING (C)	46"	53"	58"	61"	63"	66"	67"
LEG DEPTH: INNER (D)	7"	8"	8.25"	8.25"	8.25"	10.25"	10"
LEG DEPTH: OUTER (E)	11.5"	14"	14"	14"	14"	15.5"	15.5"
ARM CYLINDER SIZE	3.5"	4"	4"	4"	4"	4"	4"
TIP TO TIP SQ. FT.	3.16	3.43	4.71	4.71	4.62	5.5	6.96
CONTINUOUS ROTATION	360°	360°	360°	360°	360°	360°	360°
WEIGHT <small>(Excluding Link)</small>	1,200#	2,200#	2,550#	2,550#	2,500#	2,800#	2,800#
CARRIER REQUIREMENTS							
OPEN/CLOSE	35-55 GPM, UP TO 4,500 PSI.						
ROTATE	5-10 GPM AT 1,500 PSI.						

Standard selections are shown. Alternate sizes and a selection of leg shapes available for all grapples upon request. Features and technical data may vary without notice.



MACHINE CLASS	RECOMMENDED GRAPPLE SIZE						
	TC46	TC52	TC58	TC60	TC63	TC66	TC68
20-21 MT	X	X					
22-24 MT		X	X				
25-29 MT		X	X	X	X		
30-39 MT				X	X	X	X
40-49 MT				X	X	X	X



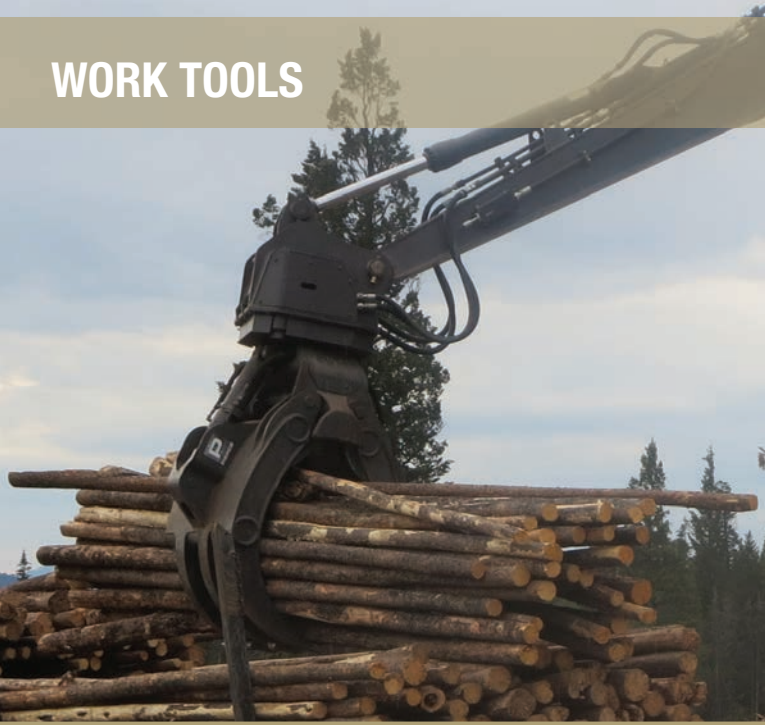
GO TO EXTREMES WITH PIERCE POWER GRAPPLES.

Pierce power grapples are built tough to stand up to the rigors of log loading, handling, sorting, decking, unloading, hoe-chucking, and brush piling. Not to mention extreme climate and working conditions.

Our power grapples feature pin-on or quick coupler lugging for excavators, roadbuilders, and log loaders alike. And each is designed to offer controlled articulation and positioning from the excavator's tool cylinder.

Pierce power grapples feature 360° continuous rotation and include open/close/rotate proportional control for added versatility.

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POWERFUL PLUSES.

- 360° continuous rotation and heavy-duty main bearing allows for controlled loading from side or rear of log trailer.
- “Valve in head” configuration minimizes machine’s hydraulic requirements.
- Dual-drive, high-torque rotation for superior speed and power.
- Rugged, durable design for long life span.

FEATURES:

- T-1 steel for superior strength and AR400 for abrasive-resistant surfaces.
- Common upper structure integrates lugging interface to any machine.
- Enclosed upper structure protects hydraulic components from debris and impact.
- Common upper structure allows for interchangeability between various grapple arms, eliminating the need for multiple dedicated work tools.
- (2) fixed outriggers.
- 3x3-tine bypassing grapple arms.
- Large diameter, 4140 HRHT alloy pins.
- Aluminum bronze bushings.
- 360° continuous rotation.
- 2 heavy-duty cylinders with high-pressure seals.
- Heavy-duty, high pressure hydraulic swivel.
- “Valve in head” configuration minimizes machine’s hydraulic requirements.
- Open/close/rotate ‘proportional’ control (in lieu of ‘on/off’ control) for superior log control.
- Momentary rotational float allows payload’s momentum to pivot work tool.
- Direct coupled rotate drive with double-supported pinion gear and (2) high output, dual drive motors.
- Rugged main bearing with large capacity through-bolted external gear slewing ring.
- Easy access to all service and maintenance locations.
- Front access door pivots open while main valve slides out for easy serviceability to a difficult-to-reach location.
- Bolt-on service covers protect main bearing and other serviceable locations.
- Pin-on or quick change lugging for any excavator, roadbuilder and log loader.

OPTIONS:

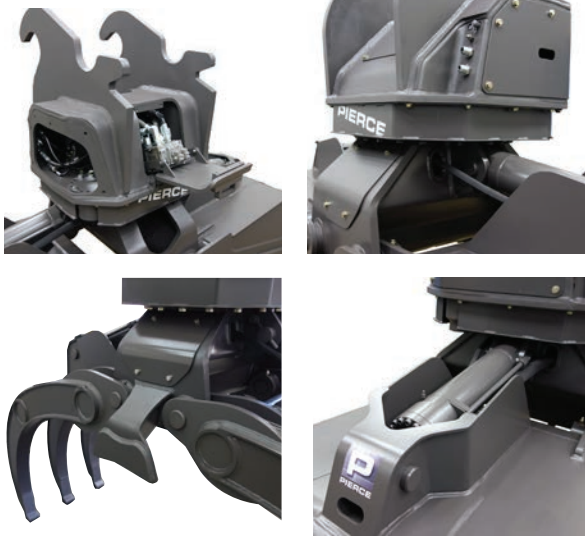
- Tool cylinder.
- Tool cylinder anchor.
- BNT installation control kit.
- Alternate arm configurations.
- Cut-off saw.



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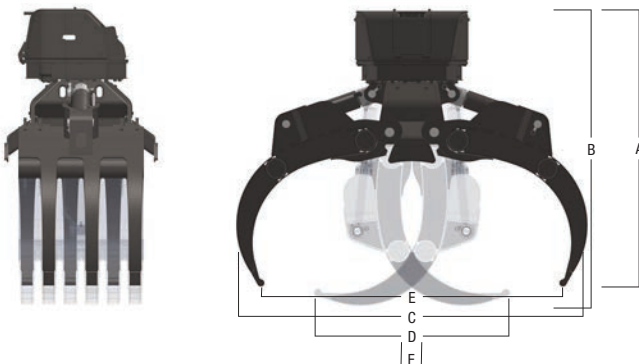
WORK TOOLS



MODEL		POWER GRAPPLE		
		PPA-27-F		
	CAPACITY	6FT ² SORTING/RAKE	8FT ² PULPWOOD	10.86FT ² PULPWOOD
	RECOMMENDED MACHINE SIZE	22-39 MT	22-39 MT	22-39 MT
	WEIGHT (SINGLE ROTATE DRIVE, NO LUGGING)	4,000#	4,600#	4,800#
A	HEIGHT (OPEN)	65"	822"	86"
B	HEIGHT (CLOSED)	82"	89"	92"
C	OVERALL WIDTH (OPEN)	95"	100"	110"
D	OVERALL WIDTH (CLOSED)	60"	61"	61"
E	MAXIMUM OPENING	85"	88"	92"
F	MINIMUM OPENING	5"	6"	6"
G	DEPTH	39"	39"	39"
NOTE: SPECIFICATIONS AND MEASUREMENTS WILL VARY DEPENDING ON CONFIGURATION.				
	ROTATE GEAR/BEARING DIAMETER	27"	27"	27"
	MAIN BEARING RATING	120,000 LBS. @ 0 FT. LBS	120,000 LBS. @ 0 FT. LBS	120,000 LBS. @ 0 FT. LBS
	ROTATION	360°, CONTINUOUS	360°, CONTINUOUS	360°, CONTINUOUS
	STANDARD DRIVE	DUAL DRIVE	DUAL DRIVE	DUAL DRIVE
	CYLINDER SIZE	4"	4"	4"

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Features and technical data may vary without notice.





PIERCE ATTACHMENTS: POWER ON!

Pierce power attachments are specially made to stand up to the rigors of heavy construction, forestry, demolition, and extreme climate and work conditions. They're also perfect for ground level demolition, road building, and heavy-duty excavation.

Each Pierce power attachment offers superior operational control with open/close/rotate proportional functions. And all offer controlled articulation and positioning from the excavator's bucket cylinder and linkage. Our power attachments can also be adapted to quick couplers for further versatility.

INCLUDES:

- T-1 steel for superior strength and AR400 for abrasive-resistant surfaces.
- Common upper structure integrates lugging interface to any excavator.
- Enclosed upper structure protects hydraulic components from debris and impact.
- Bolt-on replaceable, serrated side edges.
- Replaceable bucket teeth.
- Common upper structure allows for interchangeability between various bucket/grapple tines, eliminating the need for multiple dedicated work tools.
- Large diameter, 4140 HRHT alloy pins.
- Aluminum bronze bushings.
- 360° continuous rotation.
- Heavy-duty, high pressure hydraulic swivel.
- (2) heavy-duty cylinders with high pressure seals.
- "Valve in head" configuration minimizes machine's hydraulic requirements.
- Open/close/rotate 'proportional' control (in lieu of 'on/off' control) offers superior payload control.
- Momentary rotational float allows payload's momentum to pivot work tool.
- Direct coupled rotate drive with double supported pinion gear and high output motor(s).
- Rugged main bearing with large capacity through-bolted external gear slewing ring.
- Easy access to all service and maintenance locations.
- Front access door pivots open while main valve slides out for easy serviceability to a difficult-to-reach location.
- Bolt-on service covers protect main bearing and other serviceable locations.
- Lugging for any excavator.

OPTIONS:

- Dual-drive rotate motors.
- Tool cylinder.
- Tool cylinder anchor.
- Installation control kit.
- Alternate arm configurations.



WORK TOOLS



PROJECT: T-REX.

Specially developed for a nuclear reactor removal project for the Department of Energy, this power attachment with a clamshell configuration was designed to achieve a very high performance factor-to-weight/size ratio. It is ideal for dislodging and grappling materials such as cast-iron slabs and blocks, structural steel, rubberized concrete, rectangular graphite bars, and miscellaneous tubing up to 4" in diameter. The bucket's severing feature makes it easy to reduce material size for easier handling, without having to change to a standard shear.

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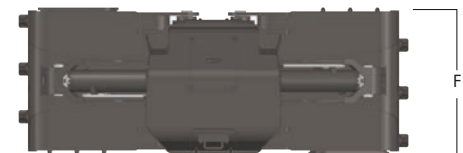
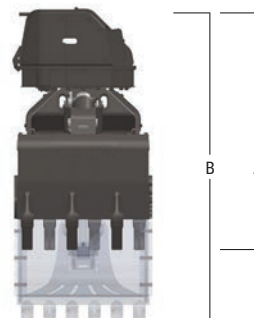
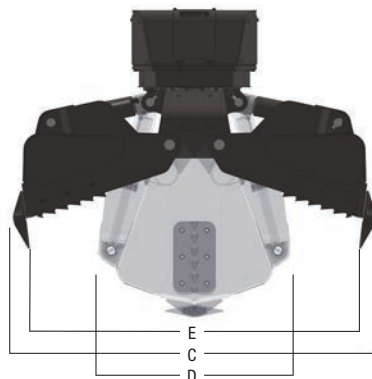
WORK TOOLS



POWER ATTACHMENT SIZES (CLAMSHELL BUCKET SHOWN)

MODEL	PPA-25	PPA-27	PPA-30
CAPACITY	.50 YD ³	.75 - 1.00 YD ³	1.25 - 1.5 YD ³
RECOMMENDED MACHINE SIZE	16-26 MT	22-39 MT	30-49MT
WEIGHT (SINGLE ROTATE DRIVE, NO LUGGING)	3,600#	4,700#	5,600#
A HEIGHT (OPEN)	62"	66"	70"
B HEIGHT (CLOSED)	77"	86"	96"
C OVERALL WIDTH (OPEN)	87"	103"	120"
D OVERALL WIDTH (CLOSED)	51"	54"	62"
E MAXIMUM OPENING	81"	96"	114"
F DEPTH	35"	37"	43"
NOTE: SPECIFICATIONS AND MEASUREMENTS WILL VARY DEPENDING ON CONFIGURATION. MEASUREMENTS ABOVE REFLECT CLAMSHELL BUCKET CONFIGURATION.			
ROTATE GEAR/BEARING DIAMETER	25"	27"	30"
MAIN BEARING RATING	110,000 LBS. @ 0 FT. LBS.	120,000 LBS. @ 0 FT. LBS.	160,000 LBS. @ 0 FT. LBS.
ROTATION	360°, CONTINUOUS	360°, CONTINUOUS	360°, CONTINUOUS
STANDARD DRIVE	SINGLE DRIVE	SINGLE DRIVE	SINGLE DRIVE
OPTIONAL DRIVE	DUAL DRIVE (-D)	DUAL DRIVE (-D)	DUAL DRIVE (-D)
CYLINDER SIZE	4"	4"	4.5"

Features and technical data may vary without notice.



- AVAILABLE CONFIGURATIONS:
- Clamshell bucket
 - 3 x 3 contractor's grapple (-C)
 - Forestry grapple (-F)
 - Rake (-R)
 - Demolition grapple (-D)



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