

HOGTIE®



USER MANUAL



DISCONNECT POWER SUPPLY BEFORE SERVICING



UNDERSTAND ALL INSTRUCTIONS BEFORE USING

ESCO Tool Guarantee

Guarantee: The manufacturer guarantees its products to be free from defects in material or workmanship for a period of one year from date of shipment from its factory. Said guarantee will not apply if equipment is used in conditions of service for which it is not recommended. The manufacturer is not responsible for damage to its products through improper use, physical damage, poor operating practice, or normal wear.

If any device is found unsatisfactory under the guarantee, the buyer must notify ESCO Tool in writing and after receipt of shipping instructions, buyer must return it directly to ESCO Tool, 75 October Hill Road, Holliston, MA 01746, USA, shipping charges prepaid. Such equipment will be replaced or put in satisfactory operating condition, free of all charges except transportation. The correction of any factory defect by repair or replacement by the manufacturer shall constitute fulfillment of all obligations to the purchaser. Manufacturer's guarantee is void if unauthorized repairs are made to its products.

Manufacturer shall not be liable for consequential damage in case of failure to meet the conditions of any guarantee or shipping schedule, nor will claims for labor, loss of profit, repairs, or other expenses incidental to replacement be allowed.

No other representations, guarantees or warranties, expressed or implied, are made by the manufacturer in connection with the manufacture and sale of its equipment.

Hold Harmless Agreement

Customer agrees to defend, indemnify and hold ESCO Tool, its owners, agents, officers, and/or employees free and harmless from and against any and all claims, liabilities, losses, costs and out of pocket expenses (including attorney's fees) arising out of, or in connection with the ESCO Tool equipment, its use or transportation, or out of operations conducted by customer, its agents, employees, contractors, representatives, guests or invitees, including, but not limited to, active and/or passive negligence.

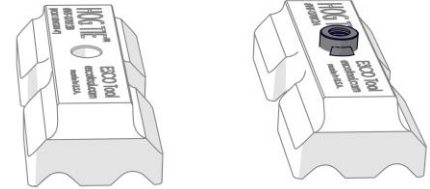
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Instructions for putting into use

Unpacking

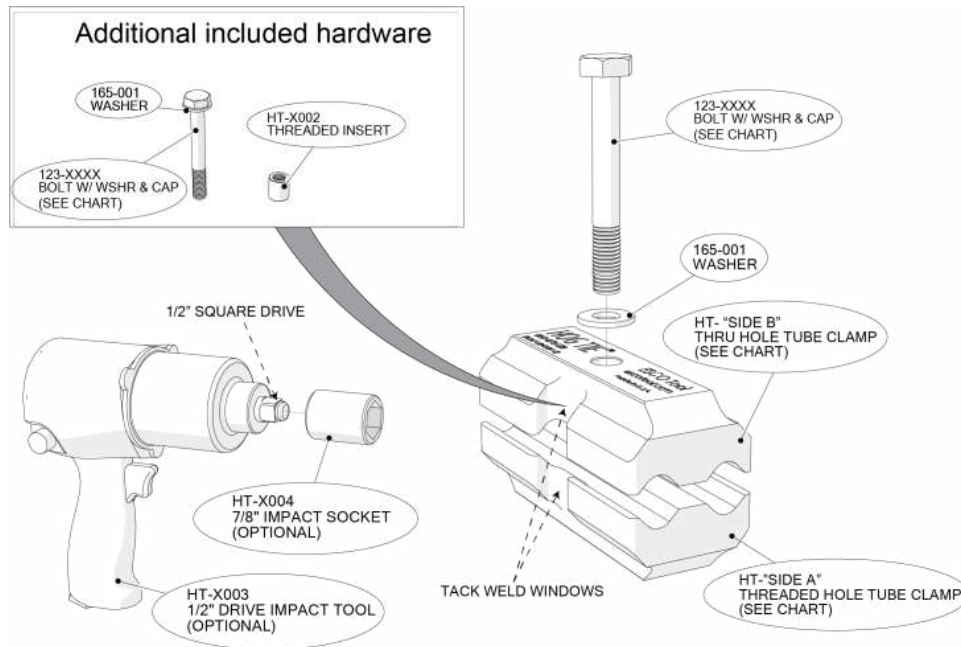
1. Use caution when handling the tool; the assembly and its components are heavy and can cause injury if mishandled.
2. Clean excess oil, grease or rust preventive from the surface of the tool.
3. Note differences between "Side A" and "Side-B" (see image) Illustrated List of Contents.

THRU HOLE vs THREADED HOLE
(Side-B) (Side-A)



Illustrated description of function

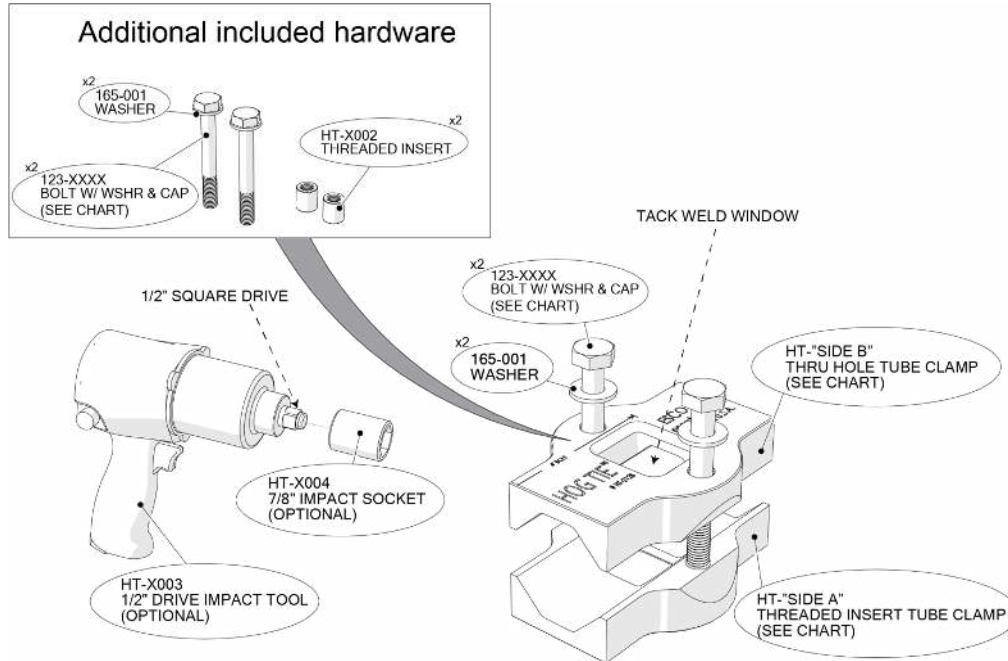
Double Tube:



TUBE O.D.		CLAMP SERIES	THREADED HOLE CLAMP (SIDE A)	THRU HOLE CLAMP (SIDE B)	BOLT W/ WASHER & CAP (PART #)	BOLT LENGTH	WASHER (PAR #)	THREADED INSERT
IN	MM							
1-1/8	28.58	HT-11812	HT-11812A	HT-11812B	123-2864-01	4"	160-035-8	HT-X002
1-1/4	31.75	HT-11412	HT-11412A	HT-11412B				
1-3/8	34.93	HT-13812	HT-13812A	HT-13812B				
1-1/2	29.21	HT-11212	HT-11212A	HT-11212B				

INSTRUCTIONS FOR PUTTING INTO USE

Single Tube:



TUBE O.D.		CLAMP SERIES	THREADED HOLE CLAMP (SIDE A)	THRU HOLE CLAMP (SIDE B)	BOLT W/ WASHER & CAP (PART #)	BOLT LENGTH	WASHER (PAR #)	THREADED INSERT
IN	MM							
1-3/4	44.45	HT-134	HT-134A	HT-134B	123-2848-01	3"	160-035-8	HT-X002
2	50.8	HT-200	HT-200A	HT-200B	123-2856-01	3-1/2"		
2-1/4	57.15	HT-214	HT-214A	HT-214B	123-2856-01	3-1/2"		
2-3/8	60.33	HT-238	HT-238A	HT-238B	123-2864-01	4"		
2-1/2	63.5	HT-212	HT-212A	HT-212B	123-2864-01	4"		
3	76.2	HT-300	HT-300A	HT-300B	123-2872-01	4-1/2"		
3-1/4	82.55	HT-314	HT-314A	HT-314B	123-2872-01	4-1/2"		

Recommended Impact Tool Specifications (optional)

AIR SUPPLY	AIR PRESSURE MAX	90 PSI	6.2 BAR
	AIR VOLUME	22 CFM	623 LT/MIN
DRIVE IMPACT TOOL	MAX TORQUE	300 FT-LB	813 NM
	BLOWS PER MINUTE	1200	

Useful Tips:

1. If using an impact wrench other than that which is supplied, ensure that it does not exceed maximum torque of 300 ft/lbs.
2. Clean, moisture free air is essential for trouble free operation.
3. Oil laden operating air should be used. Use a light weight air tool oil (SAE 10).
4. Impact wrench uses 1/4" NPT connector.
5. In damp/moist/humid air extra precaution must be taken in order to provide moisture free oil laden air to the tool.
6. In temperatures below 32 degrees Fahrenheit (0 Celsius) a lubricant with antifreeze must be used.

Safety precautions

Precautions and use of personal protective equipment

1. Tools are not insulated for coming into contact with electric power sources.
2. Do not use tool in a manner other than stated.
3. Do not connect air source until impact tool is ready to be used.
4. Use care regarding fingers, long hair, loose clothing, etc. when in use.
5. Personal protective garments, for operator and all nearby persons, should include but are not limited to:
 - a. Safety glasses
 - b. Work gloves
 - c. Work boots
 - d. Protective clothing
 - e. Hearing protection
 - f. Dust mask or breathing apparatus
6. During use, machinery may separate, lurch or fall.
7. Do not operate tool above nearby persons.
 - a. Take precautions to avoid dropping clamp, wrench, and other hardware.
8. ALWAYS use fall protection/safety lanyard to help avoid dropping equipment.

Special safety precautions

1. Inspect equipment before use.
 - a. Check Hog Tie clamps for damage before using.
 - b. Do not use clamps that are cracked or fractured.
 - c. Replace worn Threaded Inserts. Threaded Inserts are tack welded into place.
 - d. Inspect safety lanyard before using
 - i. Do not use safety lanyards if they are damaged, burned or frayed.
2. Securing device to pipe or tube creates pinch points which can cause serious injury.
3. Do not strike clamp in an attempt to aid in alignment or otherwise.
4. Do not use a worn/ill-fitting socket or wrench to tighten or loosen the Hog Tie clamp Bolts.
5. Note the direction of rotation of the impact wrench before use.
6. Always use safety lanyard in conjunction with hog ties to aid in fall protection.

CAUTION: THE USE OF NON-ESCO TOOL REPLACEMENT PARTS MAY RESULT IN SAFETY HAZARDS, DECREASED TOOL PERFORMANCE AND WILL VOID ALL WARRANTIES.

CAUTION: HOG TIE IS AN ALIGNMENT CLAMP AND NOT DESIGNED TO SUPPORT THE WEIGHT OF A TUBE, TUBE ASSEMBLY OR WATER WALL.

Explanation of symbols



Caution (refer to accompanying documents).



Safety glasses must be worn.



Protective gloves, cutting blades and chips can be hot and sharp.



Work boots, or shoes



Protective clothing



Hearing protection



Pinch points

Disclaimer

1. If the equipment is used in a manner not specified by ESCO Tool, the protection provided by the equipment may be impaired.

Operating ergonomics

1. Tool must be mounted at a reasonable working height.
2. Tool may be used in any orientation.
3. Operator must be in a position not to be injured as the machinery may separate, lurch or fall. Operator must have both feet on a stable platform. Reaching or leaning is not acceptable operating ergonomics.

Operating Instructions

Identification of operating controls and their use

Thru hole tube clamp

- Used in conjunction with the threaded insert tube clamp to align tube and pipe ends for joint tack welding.

Threaded insert tube clamp

- Used in conjunction with the thru hole tube clamp to align tube and pipe ends for joint tack welding.

Bolts

- Used to draw the thru hole tube clamp (side B) and the threaded insert tube clamp (side A) together.

Washers

- Increased load bearing surface on the thru hole tube clamp (side B) and helps protect that surface from galling.

Tack weld window

- Opening in thru hole and threaded insert tube clamps.

Spare threaded inserts

- Replaces worn threaded inserts.
- Must be tack welded into place.

D-ring

- Anchors found on both sides of clamp for attaching safety lanyard.

Clamp knob

- Used to actuate clamping mechanism for rough/quick actuating.

Safety lanyard

- Lead with clips on both sides for connecting two halves of clamp.
- Every set of hog ties must be used with the safety lanyard to help avoid hazard.

Operating impact wrench

1. Disconnect air supply before changing or adjusting Socket and other accessories. Impact Wrench power regulator should be set at "3".
2. Attach 7/8" Socket to the Impact Wrench's 1/2" square drive.
3. Note the direction of rotation before use.
4. Connect air supply to the Impact Wrench.
5. Locate the 7/8" Socket on the Bolt head Hold Impact Wrench firmly and align with work piece.
6. Gently squeeze the trigger until Bolt is tightened or loosened as desired.
 - a. On the two Bolt design Tube Hog® clamp it may be necessary to alternate between the two bolts during the tightening process.
7. Remove Impact Wrench Socket from work piece.
 - a. Disconnect air supply when not in use.

Mounting the tool to the work (two person operation)

1. Remove from packaging;
 - a. Threaded Hole tube clamp (Side “A”) (e.g. HT-300A) and Thru Hole Tube clamp (side “B”)
 - b. Fall protection/safety lanyard and attach to one half of Clamp
 - c. Bolts and Washers.
2. One individual (with thru hole tube clamp) hand other end of safety lanyard to a second individual (with threaded hole tube clamp) to attach the two halves together.
 - a. Safety lanyard must attach the two clamp halves in a position that aids in fall protection.
 - b. Slide the bolts through the washers and then slide the bolts through the thru hole clamp.
3. Person 2 place, and firmly hold, the Thru Hole Clamp (Part B) against the tube opposite (Part A) and align the clamps “A” & “B”.
4. Thread the Bolts into the Threaded Inserts of the Threaded Hole Clamp (Side A).
5. Align the two tube/pipe ends so clamps “A” & “B” are centered on the tack weld window.
6. Set the gap between the tube/pipe ends and tighten the two Bolts.
7. When the tube/pipe ends are in alignment, tack weld the ends within the Tack Weld Window.

Removing the tool from the work (two person operation)

1. Ensure safety lanyard (fall protection) is attached to both clamp halves before separating tube clamp.
2. One individual, holds clamp “A” firmly.
3. A second individual, holds clamp “B” firmly.
4. While maintaining a firm grip on clamps “A” & “B”, loosen and remove the Bolts and Washers.
5. Use caution to ensure that clamp halves (“A” and “B”) and the Bolts and Washers are not dropped.
 - a. Return Bolts and Washers to the packaging.
 - b. Detach safety lanyard and Return clamp halves (“A” and “B”) to the packaging.
 - c. Return safety lanyard to packaging.
 - d. Maintain and service as necessary.

Maintenance and Servicing**User service**

1. Contact air tool manufacturer for all service needed for the impact wrench.
 - a. Impact wrench manufacturer recommends greasing internal components after 48 hours of use.
2. After each use, check to make sure that there is no damage to bolt such as...
 - a. Damage to threads, worn head, elongated shaft, etc.
3. After each use, check threaded insert for damage such as...
 - a. Cracks, damage to weld, damage to threads, etc.
 - b. New threaded inserts must be welded into place.
4. After each use, inspect clamp halves for cracks and other forms of damage.
 - a. Never use clamps found with cracks.
5. Complete drawings and parts lists are provided in the ILLUSTRATED LIST OF CONTENTS section.

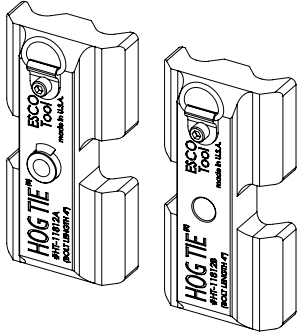
Servicing by manufacturer

1. Factory service or assistance is always available; contact ESCO Tool for additional assistance.

QUICK REFERENCE

DOUBLE TUBE HOG TIE

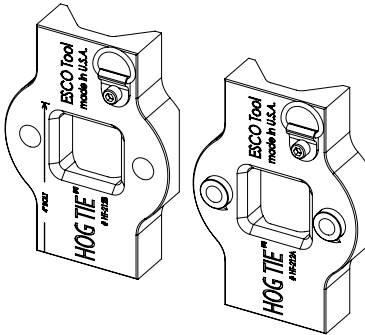
DESIGNED FOR 1/2" / 12.7mm MEMBRANE



SIZE(in)	SIZE(mm)	PART #	BOLT SIZE(in)	BOLT SIZE(mm)	BOLT PART #	BOLT QTY
1-1/8	28.6	HT-11812	4	101.6	123-2864-01	1
1-1/4	31.8	HT-11412	4	101.6	123-2864-01	1
1-3/8	34.9	HT-13812	4	101.6	123-2864-01	1
1-1/2	38.1	HT-11212	4	101.6	123-2864-01	1

SINGLE TUBE HOG TIE

DESIGNED FOR MINIMUM 1/2" / 12.7mm MEMBRANE



SIZE(in)	SIZE(mm)	PART #	BOLT SIZE(in)	BOLT SIZE(mm)	BOLT PART #	BOLT QTY
1-3/4	44.5	HT-134	3	76.2	123-2848-01	2
2	50.8	HT-200	3-1/2	88.9	123-2856-01	2
2-1/4	57.2	HT-214	3-1/2	88.9	123-2856-01	2
2-3/8	60.3	HT-238	4	101.6	123-2864-01	2
2-1/2	63.5	HT-212	4	101.6	123-2864-01	2
2-3/4	69.9	HT-234	4	101.6	123-2864-01	2
3	76.2	HT-300	4-1/2	114.3	123-2872-01	2
3-1/4	82.6	HT-314	4-1/2	114.3	123-2872-01	2

HANDLING SPECS

	1 SET	2 SETS	IMPACT
SHIP WEIGHT (lb)	12	22	18
SHIP DIMS (in)	4 X 11 X 20	4 X 11 X 20	4 X 11 X 20
SHIP WEIGHT (kg)	5.4	10	8.2
SHIP DIMS (mm)	102 X 279 X 508	102 X 279 X 508	102 X 279 X 508

PACKAGING ASSEMBLIES**PART #:** CC14-HT-01**DESCRIPTION:** CASE ASM, HT

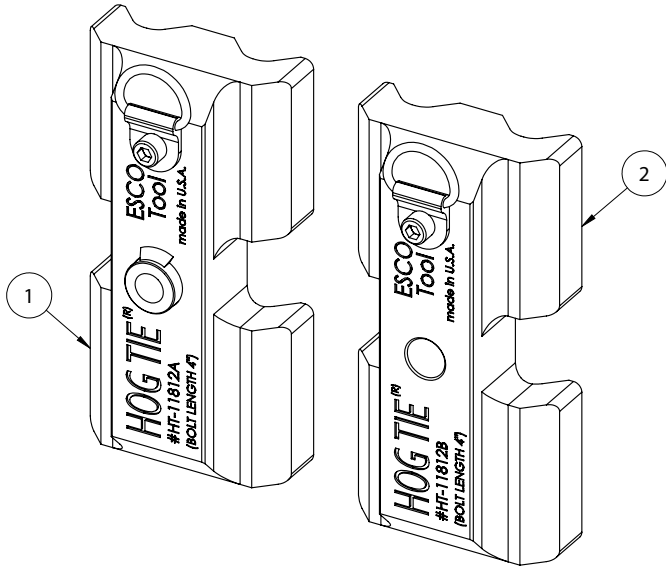
ITEM #	QTY	PART #	DESCRIPTION
1	1	CC14	CASE, CC14
2	1	FP-CC14-01	FOAM, TOP
3	1	FP-CC14-02	FOAM, HOG TIE

PART #: CC14-HT-02**DESCRIPTION:** CASE ASM, HT W/ IMPACT

ITEM #	QTY	PART #	DESCRIPTION
1	1	CC14	CASE, CC14
2	1	FP-CC14-01	FOAM, TOP
3	1	FP-CC14-03	FOAM, HT (IMPACT)

DOUBLE TUBE HOG TIE SETS

SIZE RANGE: 1-1/8" - 1-1/2"



PART #: HT-11812

DESCRIPTION: HOG TIE SET, 1-1/8

ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-11812A	CLAMP HALF, TH'D HOLE (1-1/8)
2	1	HT-11812B	CLAMP HALF, THRU HOLE (1-1/8)

PART #: HT-11412

DESCRIPTION: HOG TIE SET, 1-1/4

ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-11412A	CLAMP HALF, TH'D HOLE (1-1/4)
2	1	HT-11412B	CLAMP HALF, THRU HOLE (1-1/4)

PART #: HT-13812

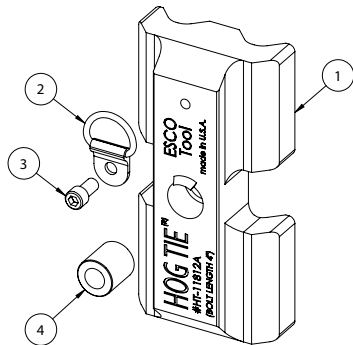
DESCRIPTION: HOG TIE SET, 1-3/8

ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-13812A	CLAMP HALF, TH'D HOLE (1-3/8)
2	1	HT-13812B	CLAMP HALF, THRU HOLE (1-3/8)

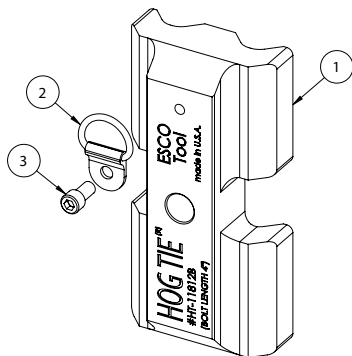
PART #: HT-11212

DESCRIPTION: HOG TIE SET, 1-1/2

ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-11212A	CLAMP HALF, TH'D HOLE (1-1/2)
2	1	HT-11212B	CLAMP HALF, THRU HOLE (1-1/2)



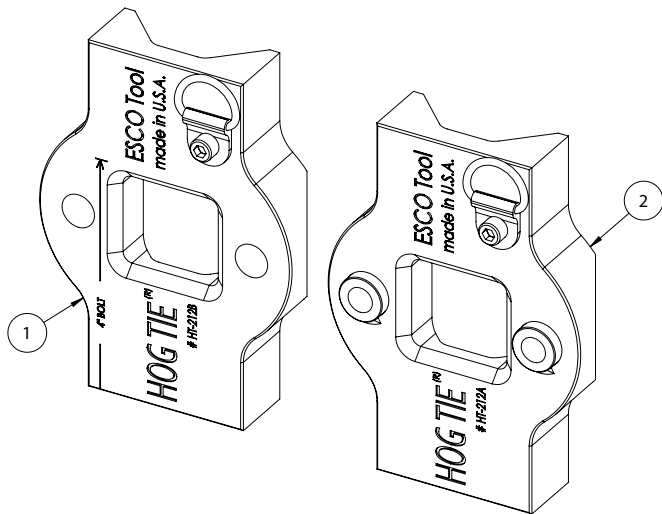
ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-11812A-01	CLAMP HALF PART, HT-11812A
	1	HT-11412A-01	CLAMP HALF PART, HT-11412A
	1	HT-13812A-01	CLAMP HALF PART, HT-13812A
	1	HT-11212A-01	CLAMP HALF PART, HT-11212A
2	1	HT-X006	D-RING
3	1	110-2008	SHCS (1/4-20 X 1/2)
4	2	HT-X002	THREADED INSERT



ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-11812B-01	CLAMP HALF PART, HT-11812B
	1	HT-11412B-01	CLAMP HALF PART, HT-11412B
	1	HT-13812B-01	CLAMP HALF PART, HT-13812B
	1	HT-11212B-01	CLAMP HALF PART, HT-11212B
2	1	HT-X006	D-RING
3	1	110-2008	SHCS (1/4-20 X 1/2)

SINGLE TUBE HOG TIE SETS

SIZE RANGE: 1-3/4" - 3-1/4"



PART #: HT-134

DESCRIPTION: HOG TIE SET, 1-3/4

ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-134A	CLAMP HALF, TH'D HOLE (1-3/4)
2	1	HT-134B	CLAMP HALF, THRU HOLE (1-3/4)

PART #: HT-200

DESCRIPTION: HOG TIE SET, 2

ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-200A	CLAMP HALF, TH'D HOLE (2)
2	1	HT-200B	CLAMP HALF, THRU HOLE (2)

PART #: HT-214

DESCRIPTION: HOG TIE SET, 2-1/4

ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-214A	CLAMP HALF, TH'D HOLE (2-1/4)
2	1	HT-214B	CLAMP HALF, THRU HOLE (2-1/4)

PART #: HT-238

DESCRIPTION: HOG TIE SET, 2-3/8

ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-238A	CLAMP HALF, TH'D HOLE (2-3/8)
2	1	HT-238B	CLAMP HALF, THRU HOLE (2-3/8)

PART #: HT-212

DESCRIPTION: HOG TIE SET, 2-1/2

ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-212A	CLAMP HALF, TH'D HOLE (2-1/2)
2	1	HT-212B	CLAMP HALF, THRU HOLE (2-1/2)

PART #: HT-234

DESCRIPTION: HOG TIE SET, 2-3/4

ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-234A	CLAMP HALF, TH'D HOLE (2-3/4)
2	1	HT-234B	CLAMP HALF, THRU HOLE (2-3/4)

PART #: HT-300

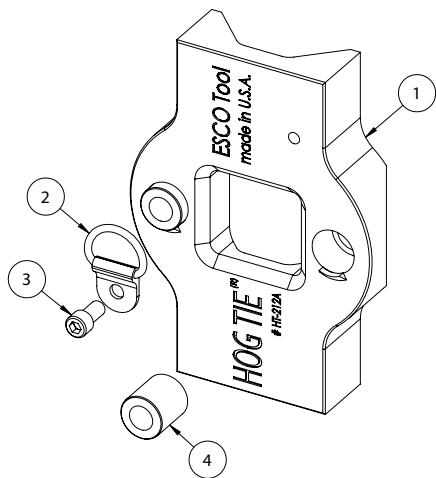
DESCRIPTION: HOG TIE SET, 3

ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-300A	CLAMP HALF, TH'D HOLE (3)
2	1	HT-300B	CLAMP HALF, THRU HOLE (3)

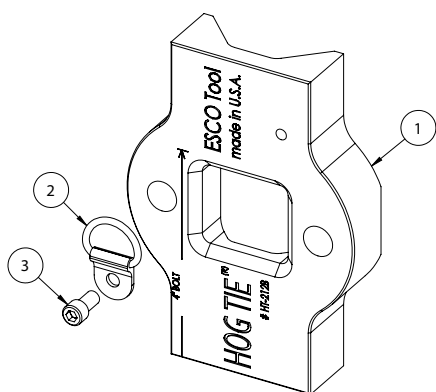
PART #: HT-314

DESCRIPTION: HOG TIE SET, 3-1/4

ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-314A	CLAMP HALF, TH'D HOLE (3-1/4)
2	1	HT-314B	CLAMP HALF, THRU HOLE (3-1/4)

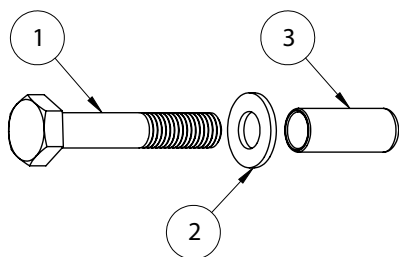


ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-134A-01	CLAMP HALF PART, HT-134A
	1	HT-200A-01	CLAMP HALF PART, HT-200A
	1	HT-214A-01	CLAMP HALF PART, HT-214A
	1	HT-238A-01	CLAMP HALF PART, HT-238A
	1	HT-212A-01	CLAMP HALF PART, HT-212A
	1	HT-234A-01	CLAMP HALF PART, HT-234A
	1	HT-300A-01	CLAMP HALF PART, HT-300A
	1	HT-314A-01	CLAMP HALF PART, HT-314A
2	1	HT-X006	D-RING
3	1	110-2008	SHCS (1/4-20 X 1/2)
4	2	HT-X002	THREADED INSERT



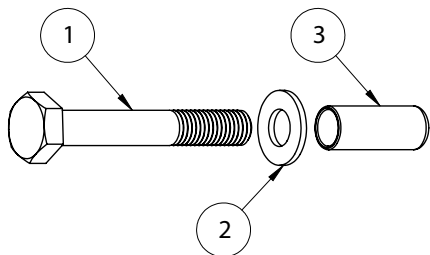
ITEM #	QTY	PART #	DESCRIPTION
1	1	HT-134B-01	CLAMP HALF PART, HT-134B
	1	HT-200B-01	CLAMP HALF PART, HT-200B
	1	HT-214B-01	CLAMP HALF PART, HT-214B
	1	HT-238B-01	CLAMP HALF PART, HT-238B
	1	HT-212B-01	CLAMP HALF PART, HT-212B
	1	HT-234B-01	CLAMP HALF PART, HT-234B
	1	HT-300B-01	CLAMP HALF PART, HT-300B
	1	HT-314B-01	CLAMP HALF PART, HT-314B
2	1	HT-X006	D-RING
3	1	110-2008	SHCS (1/4-20 X 1/2)

HOG TIE BOLTS



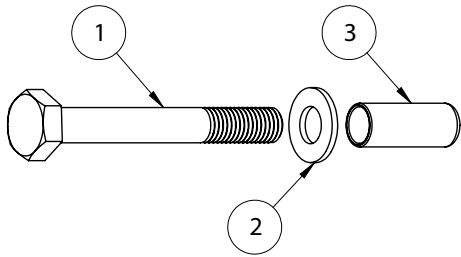
PART #: 123-2848-01
DESCRIPTION: BOLT ASM, 3

ITEM #	QTY	PART #	DESCRIPTION
1	1	123-2848	HH BOLT (1/2-13 X 3)
2	1	160-035-8	WASHER (G8)
3	1	HT-X005	BOLT CAP



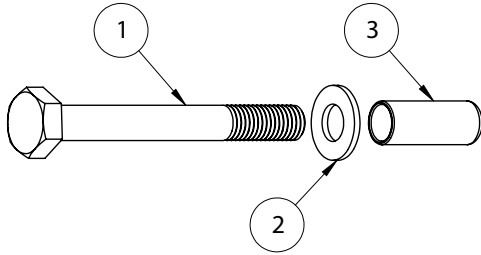
PART #: 123-2856-01
DESCRIPTION: BOLT ASM, 3-1/2

ITEM #	QTY	PART #	DESCRIPTION
1	1	123-2856	HH BOLT (1/2-13 X 3-1/2)
2	1	160-035-8	WASHER (G8)
3	1	HT-X005	BOLT CAP



PART #: 123-2864-01
DESCRIPTION: BOLT ASM, 4

ITEM #	QTY	PART #	DESCRIPTION
1	1	123-2864	HH BOLT (1/2-13 X 4)
2	1	160-035-8	WASHER (G8)
3	1	HT-X005	BOLT CAP

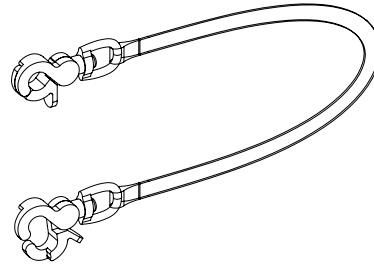


PART #: 123-2872-01
DESCRIPTION: BOLT ASM, 4-1/2

ITEM #	QTY	PART #	DESCRIPTION
1	1	123-2872	HH BOLT (1/2-13 X 4-1/2)
2	1	160-035-8	WASHER (G8)
3	1	HT-X005	BOLT CAP

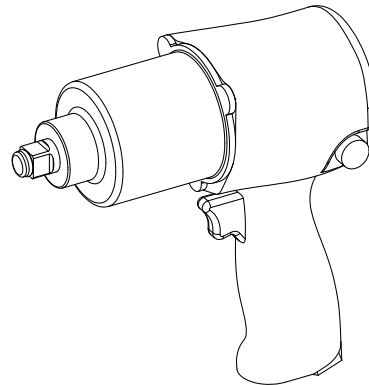
PART #: HT-X007

DESCRIPTION: LANYARD



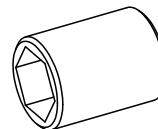
PART #: HT-X003

DESCRIPTION: IMPACT DRIVE TOOL, 1/2



PART #: HT-X004

DESCRIPTION: IMPACT SOCKET, 7/8



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