

# **SPECIFICATIONS**

## **HEAVY DUTY C WITH TRACTION, DOUBLE GUN**

**Part Number: PO-HDCT-2**

### **GENERAL**

These specifications cover the minimum specifications of a self-propelled, double-line, single-color paint striping machine capable of applying traffic marking materials of all types, both reflective and non-reflective. The machine shall be completely self-contained, capable of being operated by a single operator.

### **EQUIPMENT**

1. **FRAME AND CHASSIS.** The main frame shall be of 1-1/4" A500 structural steel tubing, heavy 1/4" thick formed steel deck for the engine and compressor mount and heavy 1-1/16 OD steel tubing for the handles. Frame shall measure approximately 72" long, 33" wide and 48" tall.
2. **ENGINE.** The marking machine shall be equipped with a single cylinder, four-cycle, air-cooled, gasoline engine, Honda GX-240 or equal, capable of developing not less than 8.0 gross horsepower. The engine shall be equipped with a large capacity 1-1/2 gallon US all-steel gas tank, tapered anti-friction roller bearings and built-in flywheel magneto for fast starting.
3. **COMPRESSOR.** The compressor shall be twin-cylinder, two stage, air-cooled type with a displacement of not less than 18 CFM at 80 psi gauge pressure and 900 rpm. The compressor shall be equipped with anti-friction tapered bearings, positive splash lubrication and provide sufficient air capacity for operating all components while maintaining a 50% air reserve at all times to facilitate long service life. The compressor shall be equipped with an after cooler manifold to insure pressurized air remains cool. The unit shall also be equipped with a heavy duty, flexible main air line. The compressor shall be equipped with an automatic un-loader valve to maintain system pressure.
4. **MATERIAL CONTAINER.** The marking machine shall be equipped with a material container of not less than 7 U. S. gallon capacity which will be electrically welded, and measure 12" in diameter and be of carbon steel construction. The tank tested to withstand an internal working pressure of not less than 110 PSI and shall be equipped with a drain off line and ball valve to completely empty the tank in a convenient spot outside the frame. A tank shut off ball valve at the bottom of the tank shall also be provided. The material container shall be mounted in a vertical position, directly behind the compressor and engine. The tank lid shall be not less than 10" in diameter and of ASME construction. A solvent resistant gasket shall be held in place with four forged steel clamps and wing bolt assemblies.

5. **SPRAY EQUIPMENT.** The spray system shall include two automatic air actuated KC-593-SS spray guns, designed specifically for application of traffic paints. The spray guns and material container shall be further equipped with two separate, non corrosive type regulators to maintain paint tank pressure and atomization air to the striping gun. The spray gun shall be automatic, diaphragm-operated, internal mixing, bleeder type capable of applying 3" to 9" lines. The spray guns shall be equipped with a hardened satellite air cap capable of spraying both reflective and non reflective type paints. The spray guns shall be further equipped with air curtain assembly to insure sharp line definition. The striping gun shall apply square beginnings and endings in uniform application and perfect cross distribution. All hoses (control, atomizing and fluid) to the striping gun shall be the solvent-resistant and equipped with reusable type fittings. The spray guns shall be mounted outboard at the left on a hinged side delivery **set up for two 4" lines with a 4" space unless otherwise noted.** The paint gun and air curtains shall fold 90 degrees for transport and storage.

6. **STRAINER.** A "Y" type strainer shall be installed in the paint supply line to insure the removal of skins and other foreign matter from the gun paint supply. The strainer shall be mounted directly under the paint tank complete with isolation ball valve for service while maintaining paint in the tank. The strainer shall be positioned for easy access to the operator.

7. **WHEELS.** The rear wheels shall be not less than 4.00 x 8 tube type pneumatic equipped with 1-3/8" anti-friction roller bearings and mounted on 1" diameter axle. The front wheel shall be 3.00 x 5 tube type pneumatic tire equipped with 5/8" ball bearings. The front axle shall be adjustable to insure straight tracking.

8. **CLEANER EQUIPMENT.** The striper shall be equipped with an automatic pressure cleaner mechanism of not less than one quart capacity. The cleaner mechanism shall be equipped with an atomizing head for the automatic flushing of atomized cleaner solution through the atomization line to the spray head assembly of the striping gun. In addition, the pressure cleaner mechanism shall be valved to flush cleaner solution through the fluid line to the striping gun while maintaining paint in the pressure tank.

9. **CONTROLS.** The striping gun(s) shall be controlled by a quick-as-a-wink (QAW) control valve located on the handle bar within easy reach of the operator. Each spray gun will be equipped with a separate QAW valve. An additional "Master" QAW will be provided for simultaneous activation of both spray guns.

10. **HOSES.** All material hoses shall be nylon type with standard thread reusable fittings. Material hose: 1/2" ID, atomization hose 3/8" ID, control hose 1/4" ID.

11. **GUIDE ASSEMBLY.** The striping machine shall be equipped with an adjustable and removable guide arm for retracing and guiding.

12. **TRACTION MECHANISM.** The marking machine shall be equipped with an automatic, air-actuated traction mechanism capable of propelling the unit at adjustable speeds of 1/2 to 3 miles per hour. The traction mechanism shall be actuated by a separate quick-as-a-wink control valve

located on the handle bar within easy reach of the operator. The traction mechanism shall apply positive force to each rear wheel by means of a cast iron traction roller. Separate air cylinders for each rear wheel shall maintain constant, equal pressure to ensure straight lines. Front wheel type traction shall not be acceptable.

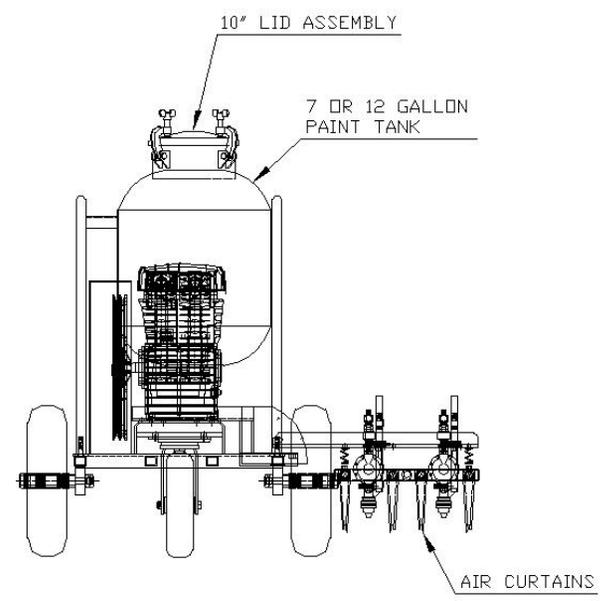
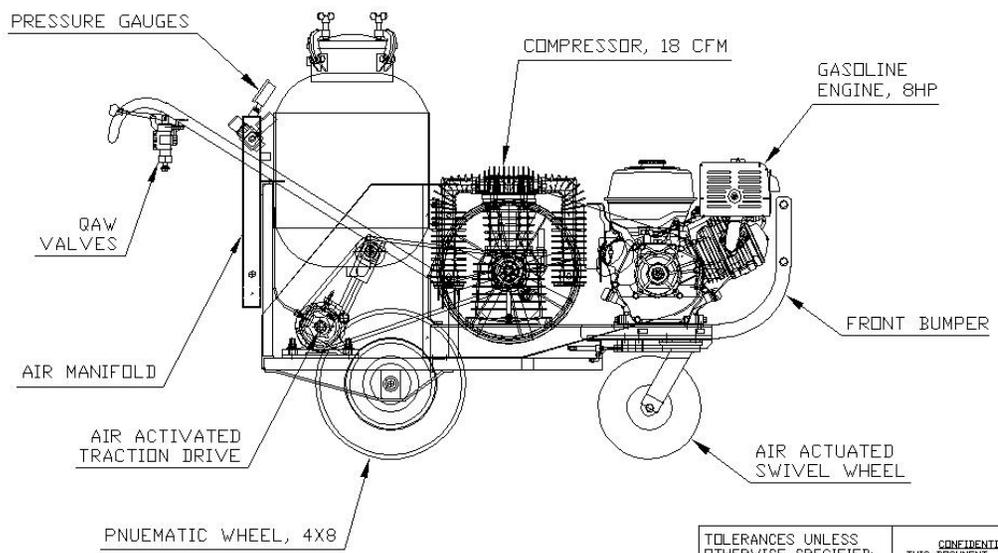
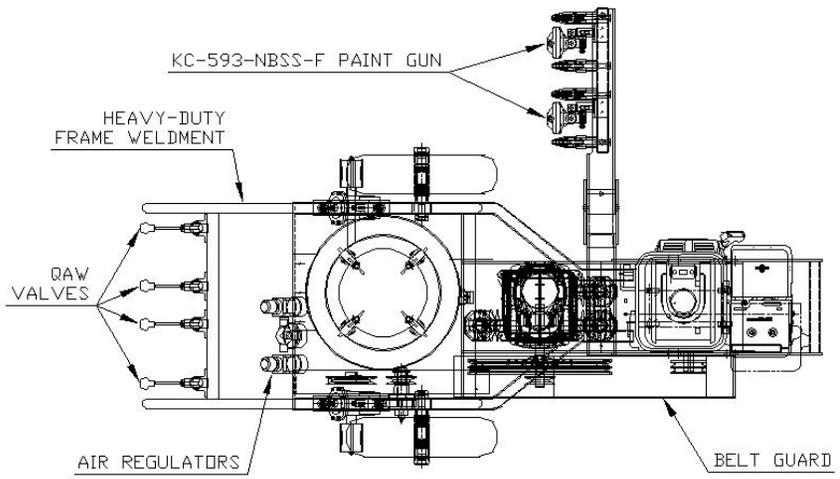
13. **PNEUMATIC FRONT LOCKING SWIVEL WHEEL.** The marking machine shall be equipped with a pneumatic actuated front locking swivel wheel. The operator can unlock the swivel wheel for turning the machine or radius striping and lock the wheel for straight line striping. A toggle type control valve shall be conveniently located on the right handle of the machine to engage and disengage the swivel lock. The unit will be equipped with a separate air regulator to control air pressure to the air cylinder lock. The swivel wheel assembly shall be equipped with a 1” thick machined aluminum base with slotted holes for adjustment. The air cylinder shall be captive on the aluminum block and feature a threaded stud with locking nuts to adjust the stroke.
14. **BELT GUARD.** The line marking machine shall be equipped with an all-steel expanded metal belt and pulley guard.
15. **PAINTING.** The line marking machine shall be painted Federal Highway Yellow.
16. **GUARANTEE.** The line marking machine as specified herein shall be guaranteed for a period of one year after the date of delivery and acceptance against defective parts and workmanship.
17. **SERVICE MANUALS.** One complete set of operating instructions and a repair parts list shall be delivered with the unit including detailed parts drawings with part numbers.

### **OPTIONAL EQUIPMENT**

Latex Compatible	PO-HDCT-2-SS	See specs for PO-HDC-2-SS.
Single Paint Guns	PO-HDCT	See specs for PO-HDCT.
Hydrostatic Drive	PO-Hydro	See specs for PO-Hydro-2.
Operators Riding Trailer	AC-1250	Detachable stand on riding trailer complete with two each 3 X 5 wheel assemblies with foot brake.
	AC-1255	Detachable riding trailer complete with adjustable seat assembly, two each 3 X 5 wheel assemblies and foot brake.
Engines		
	AC-1372	Honda GX-240 8 gross HP engine with electric complete with 12 VDC battery and key start in lieu of recoil start. Required when adding a M40D skipline controller.
Material Container	AC-1100	12-Gallon, carbon steel tank, non-code, with 10” lid assembly in lieu of standard 7 gallon.

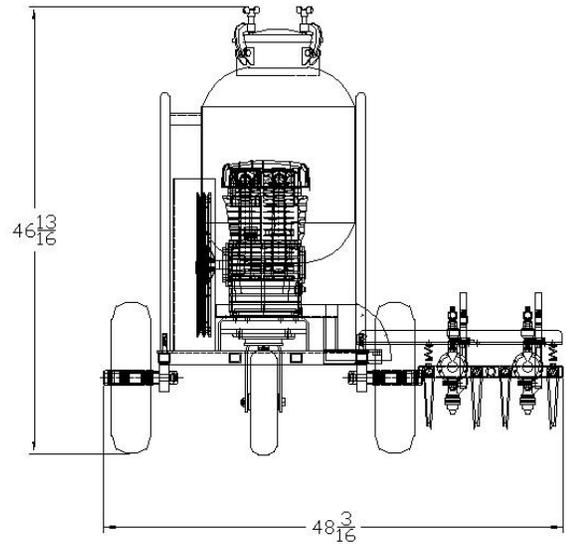
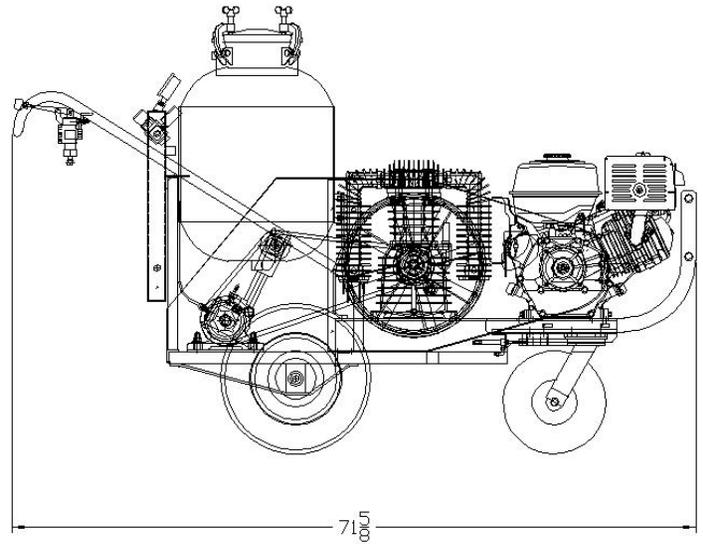
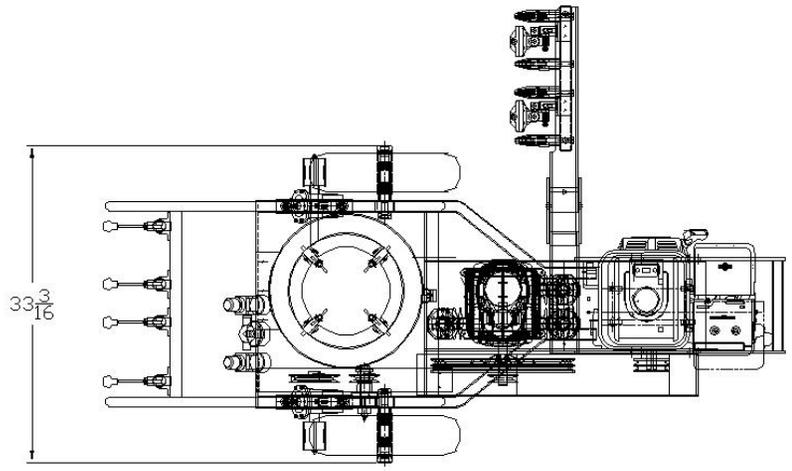
	AC-1120	Double 7 gallon carbon steel paint tanks.
Spray Equipment	AC-1160 (Two required)	KC-593 NBSSF, non-bleed with tip flush in lieu of standard bleeder type striping gun. (recommended for latex paints).
	AC-21NB (Two required)	Binks 21 non-bleed gun in lieu of standard (no tip flush capability).
	AC-21B (Two required)	Binks 21 bleeder gun in lieu of standard.
Agitator	AC-1130	Hand paddle agitator for 7 or 12 gallon tanks, plated carbon steel shaft with plastic paddles and hand crank.
	QM-1011-1-SS	SS shaft for AC-1130 (recommended for latex material).
Gravity Bead Dispenser		The bead dispenser shall be installed to operate automatically in conjunction with the striping gun by means of the same control valve. In addition, a shut-off valve shall be installed in the control line to the bead dispenser so that the striping gun may be operated independently. The bead dispenser shall be fully adjustable for the desired application ratio of pounds of beads per gallon of paint.
	AC-1052-6-T7	Two (2) 6" gravity bead dispensers, 40# bead hopper, control and charging hoses installed on machines equipped with a 7 gallon paint tank.
	AC-1052-6-T12	Two (2) 6" gravity bead dispenser, 70# bead hopper, control and charging hoses installed on machines equipped with 12 gallon paint tank.
Pressure Bead System	AC-1060-2	The pressure bead system shall be equipped with a 50# pressure bead tank complete with 10" lid assembly, air regulation system and moisture trap. Two (2) KC-593B pressure bead guns shall be located behind the spray gun and will operate automatically in conjunction with the striping gun. The volume of beads shall be adjustable by altering pressure on the bead tank and adjustment of the needle stop in the pressure bead gun.
Hand Gun Assembly		
	AC-1010-2	Hand paint spray gun complete with 20' of 3/8" fluid hose, 20' of 5/16" air hose, hand gun valves, fittings and Bink's 2100 hand gun.
	AC-1040	Bink's 2001-B Hand Bead Gun with 20' Hose (Requires AC-1060-1).
	AC-1020	Hand gun take off valves only, black pipe.
Skipline Controller	AC-1225	The unit shall be equipped with the Kelly-Creswell Mark 40D electronic skipline controller, no exceptions. The Mark 40D skipline controller shall control up to four paint and bead guns simultaneously; features include a bright 32 character digital LCD display, advance/retard with Posi-Cycle, single switch auxiliary paint/skip cycle, automatic calibration, speedometer/odometer, versatile three-mode pattern change preset, metric or US display, menu driven programming, heavy duty military specification components, non-volatile memory (no batteries required) and is equipped with totalizing digital footage counters. Controller (Requires AC-1371 or AC-1372 electric start engine).
Transport	AC-1260	Model K transport trailer with folding ramp, DOT approved lighting,

Trailer		1.875" ball type hitch.
Hand Parking Brake	AC-1210	One (1) hand parking brake assembly installed to secure the machine when unattended.
Rotatable Side Delivery	AC-1180	Rotatable side delivery attachment equipped with a separate, angle iron side delivery bracket with rotatable feature to allow painting both horizontal and vertical surfaces.
Spare Parts Inventory	PO-HDCT-2-Minor	Spare parts inventory including KC-143 needle kit for striping gun, tank gasket, cleaner tank gasket, 15' 1/4" nylon tubing.
	PO-HDCT-2-Major	Spare parts inventory recommended for export customers includes Minor kit plus, KC-145 tip repair kit, complete set of belts, (2) spare rear wheels, spare front wheel, replacement air regulator, replacement 100# gauge, replacement 160# gauge, replacement three way valve, complete set of fluid & air hoses, replacement diaphragm for traction mechanism.
Crating	PO-Crate	Crating charge for all portables shipped common carrier. Includes heavy wooden skid with protective frame.
	PO-Crate-Export	Fully enclosed wooden box fabricated, 7/16 OSB wood.



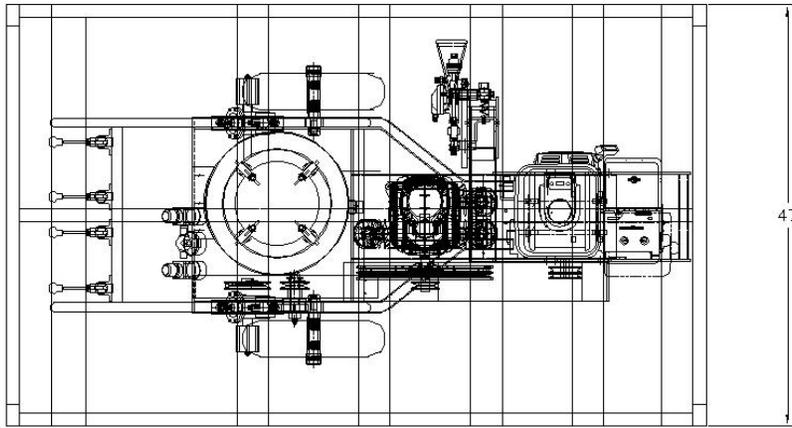
TOLERANCES UNLESS OTHERWISE SPECIFIED: Angular $\pm 2^\circ$ Fractional $\pm 1/16"$ X = $\pm .1$ .XX = $\pm .01$ .XXX = $\pm .005$ .XXXX = $\pm .0015$	<b>CONFIDENTIAL</b> THIS DOCUMENT, INCLUDING ALL INFORMATION HEREIN, IS THE EXCLUSIVE AND CONFIDENTIAL PROPERTY OF ERNEST INDUSTRIES. THEREFORE THIS DOCUMENT IS NOT TO BE COPIED, REPRODUCED, OR DELIVERED TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF ERNEST INDUSTRIES.	Kelly-Creswell 1221 Groop Rd. Springfield, OH 45504 937-265-9076		TITLE: <b>DOUBLE GUN TRACTION FRAME</b>			
		Since 1937 		DESCRIPTION: <b>GENERAL DETAILS</b>			
DRAWN BY <b>TLB</b>		DATE <b>11/11/10</b>		DWG NO./PART NO. <b>HDCT-2</b>		SCALE: <b>NA</b>	
APPROVED BY		DATE APPROVED		SIZE: <b>A</b>	PAGE #: <b>1-3</b>	REV: <b>C</b>	

Kelly-Creswell  
 HDCT-2  
 Rev C

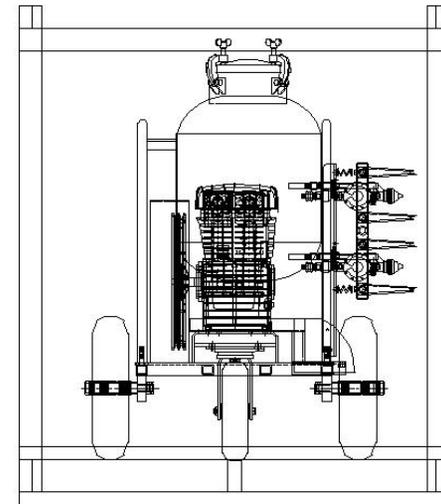
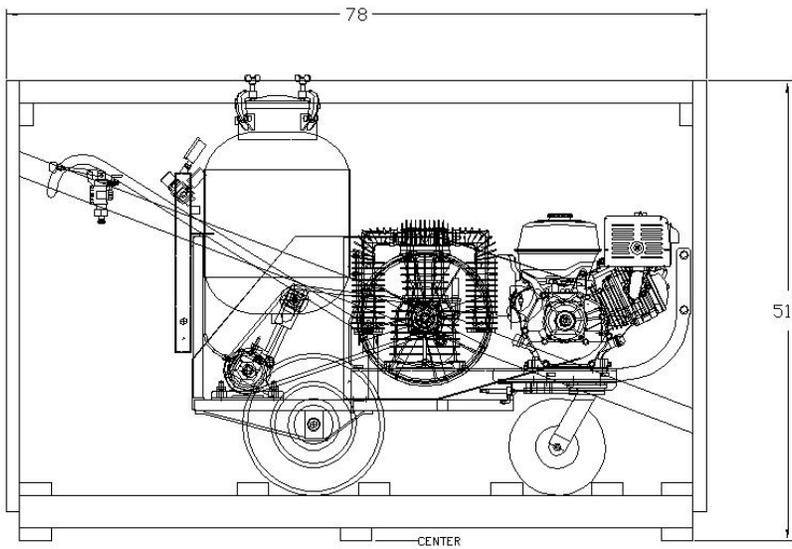


TOLERANCES UNLESS OTHERWISE SPECIFIED: Angular ±2° Fractional ±1/16" X= ±.1 .XX=±.01 .XXX=±.005 .XXXX=±.0015		<b>CONFIDENTIAL</b> THIS DOCUMENT, INCLUDING ALL INFORMATION HEREIN, IS THE EXCLUSIVE AND CONFIDENTIAL PROPERTY OF ERNEST INDUSTRIES. THEREFORE THIS DOCUMENT IS NOT TO BE COPIED, REPRODUCED, OR DELIVERED TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF ERNEST INDUSTRIES.		Kelly-Creswell 1221 Groop Rd. Springfield, OH 45504 937-265-9076  Since 1937		TITLE: <b>DOUBLE GUN TRACTION FRAME</b> DESCRIPTION: <b>GENERAL DIMENSIONS</b>	
DRAWN BY TLB	DATE 11/11/10	DWG NO./PART NO. HDCT-2		SCALE: NA	SIZE: A	PAGE #: 2-3	REV: C
APPROVED BY	DATE APPROVED						

Kelly-Creswell  
 HDCT-2  
 Rev C



LENGTH (INCHES)	78"
WIDTH (INCHES)	47"
HEIGHT (INCHES)	51.25"
EST. SHIPPING WEIGHT	400 LBS
APPROX. CUBIC FEET	105'



TOLERANCES UNLESS OTHERWISE SPECIFIED:  
 Angular ±2°  
 Fractional ±1/16"  
 X= ±.1  
 .XX=±.01  
 .XXX=±.005  
 .XXXX=±.0015

**CONFIDENTIAL**  
 THIS DOCUMENT, INCLUDING ALL INFORMATION HEREIN, IS THE EXCLUSIVE AND CONFIDENTIAL PROPERTY OF ERNEST INDUSTRIES. THEREFORE THIS DOCUMENT IS NOT TO BE COPIED, REPRODUCED, OR DELIVERED TO OTHERS WITHOUT THE EXPRESS WRITTEN PERMISSION OF ERNEST INDUSTRIES.

Kelly-Creswell  
 1221 Groop Rd.  
 Springfield, OH 45504  
 937-265-9076



DRAWN BY	DATE
TLB	11/11/10
APPROVED BY	DATE APPROVED

TITLE:  
**DOUBLE GUN TRACTION FRAME**  
 DESCRIPTION:  
**SHIPPING DIMENSIONS**

DWG NO./PART NO.	SCALE:	SIZE:	PAGE #:	REV:
HDCT-2	NA	A	3-3	C

Kelly-Creswell  
 HDCT-2  
 Rev C