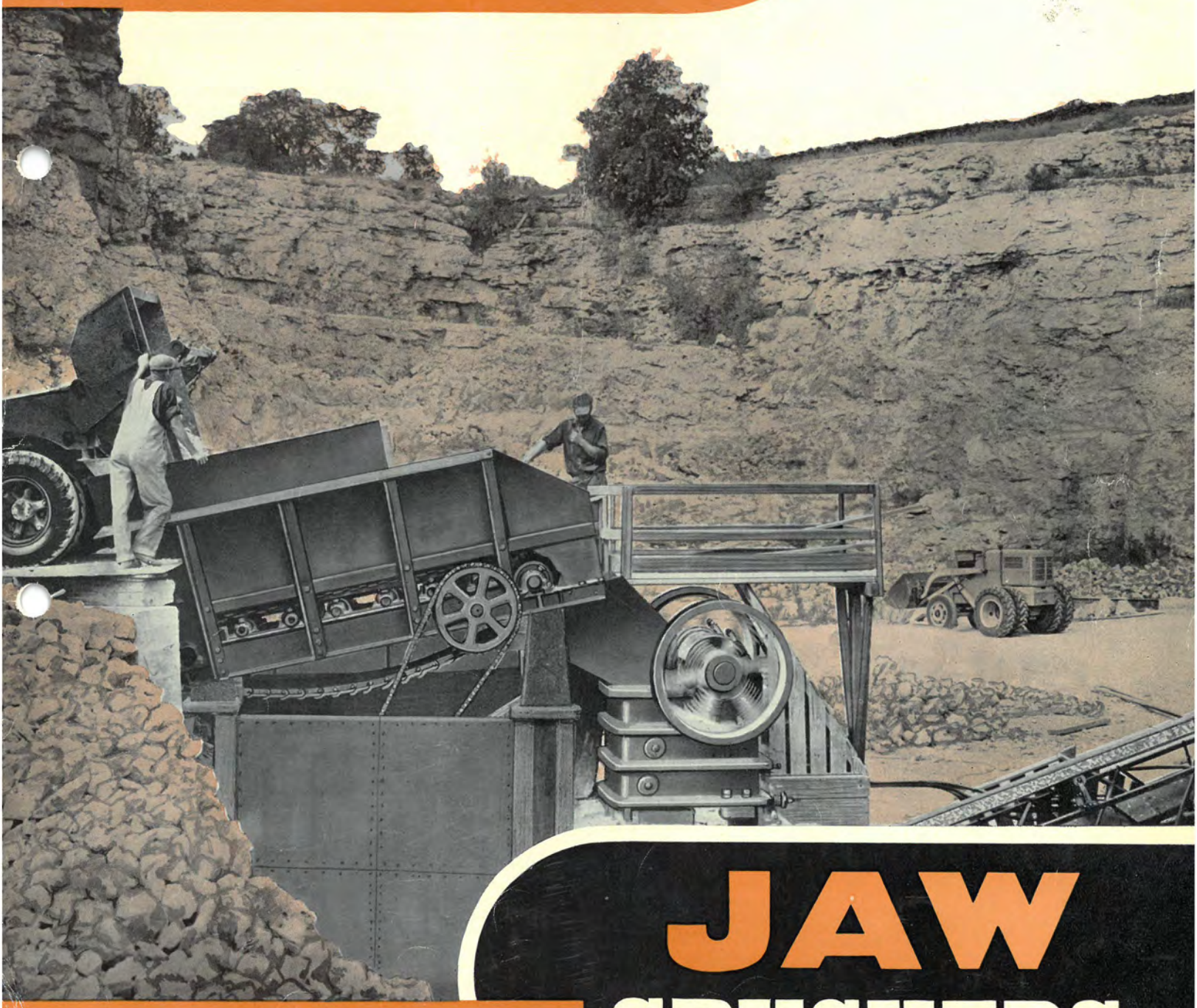
PEGSON

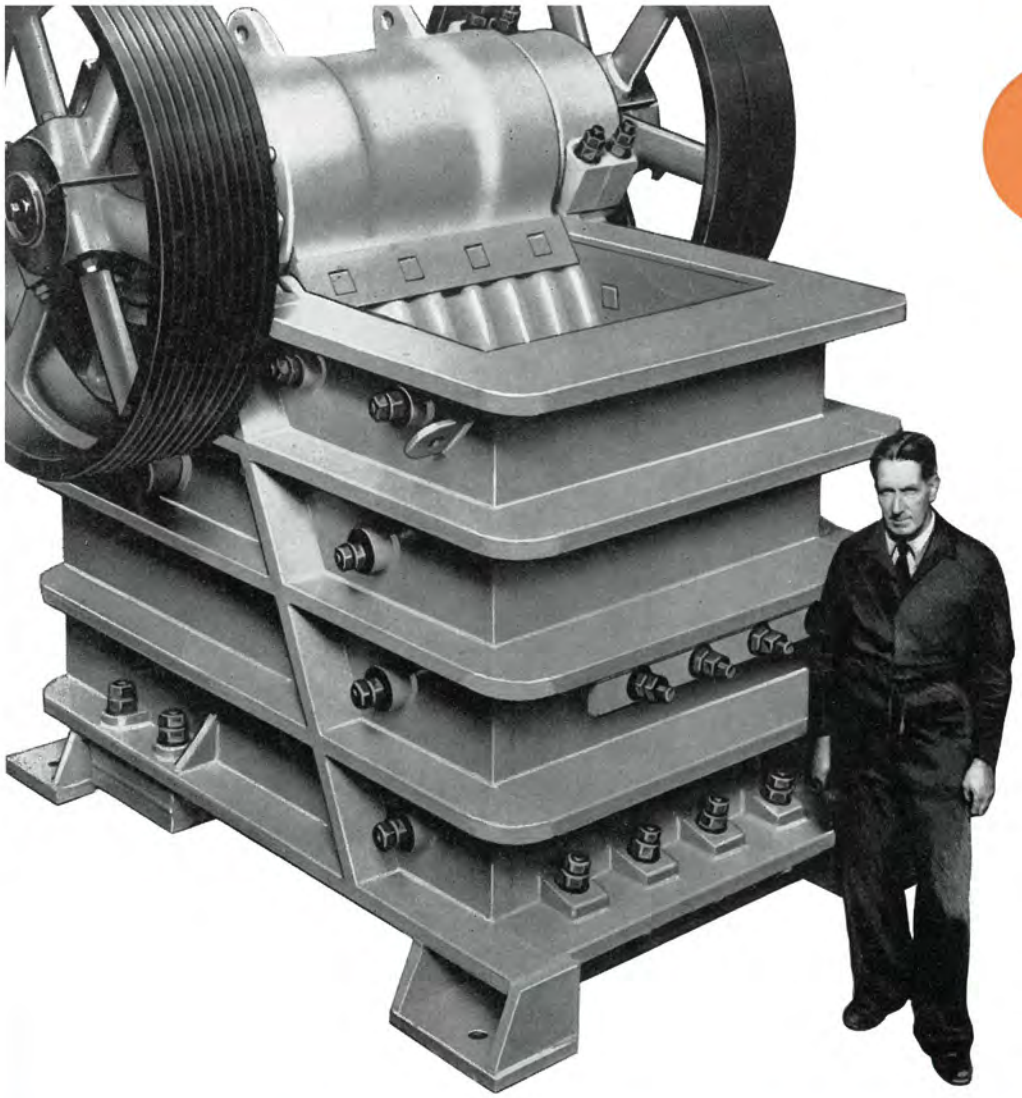
TELSMITH

ROLLER-BEARING



SINGLE-TOGGLE

JAW CRUSHERS



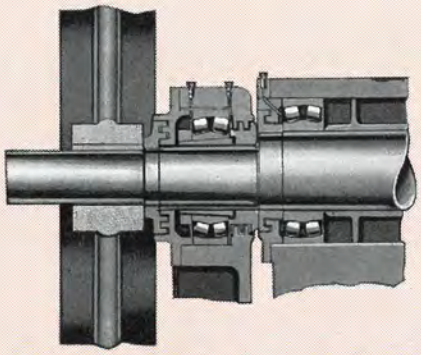
PEGSON TE

BUILT IN SE

The Pegson-Telsmith Jaw Crusher, acknowledged leader in its field, is an all-steel machine of the forced feed type, equipped throughout with anti-friction bearings. The 14″ × 24″, 25″ × 36″, 30″ × 42″ and 42″ × 48″ sizes are of fabricated all-welded steel construction, which not only gives added strength but eliminates any risk of casting failures. The remaining sizes are at present of cast steel construction. Apart from exceptionally hard and abrasive materials, for which the Pegson-Telsmith Gyratory Crusher is the ideal machine, these Jaw Crushers meet practically every requirement of the Quarry, Gravel Plant, Construction and Mining fields.

CONSTRUCTION

The box-like main frame, of either welded steel-plate construction or annealed cast steel, is reinforced by heavy horizontal ribs machined at the front end to take the fixed jaw. Both sides are bored in one operation to ensure accurate alignment of the roller races. The jaw stock is of cast steel, heavily ribbed for strength, machined accurately for the swing jaw and bearings. Renewable toggle seats are fitted to the swing jaw and toggle block. Jaws are of manganese steel, with corrugated faces, reversible and machined for accurate fitting. Cheek plates are of manganese steel and bolted in place. The large diameter eccentric shaft is of forged, heat treated steel, accurately ground and polished. The 30″ × 42″ and 42″ × 48″ sizes have special thrust blocks to take side thrust, due to crushing. The entire shaft unit can be readily removed by taking off the main bearing caps.



Sectional view of the eccentric shaft, self-aligning roller bearings, pulleys and piston ring seals.

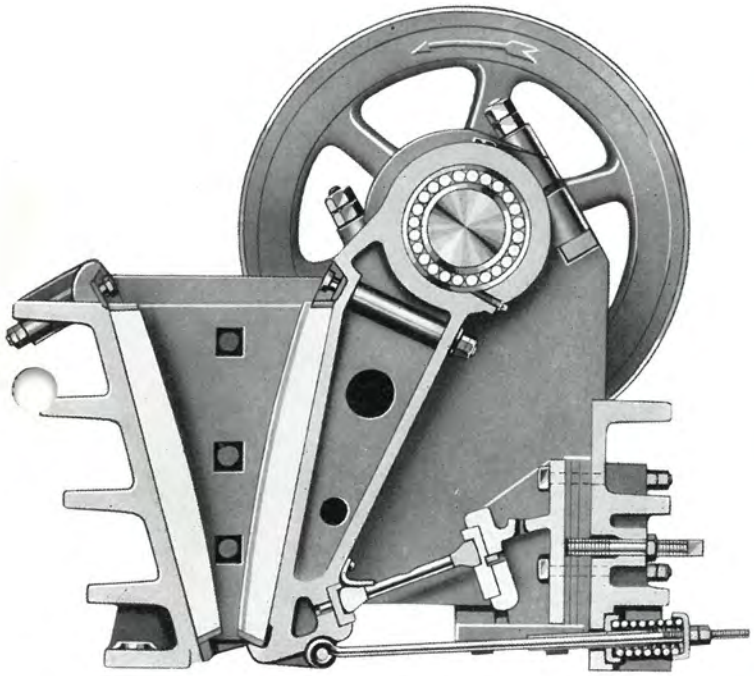
BEARINGS

Heavy duty, self - aligning roller bearings are used for jaw stock and frame. Each bearing is protected from entry of dirt or loss of lubricant by specially designed seals.

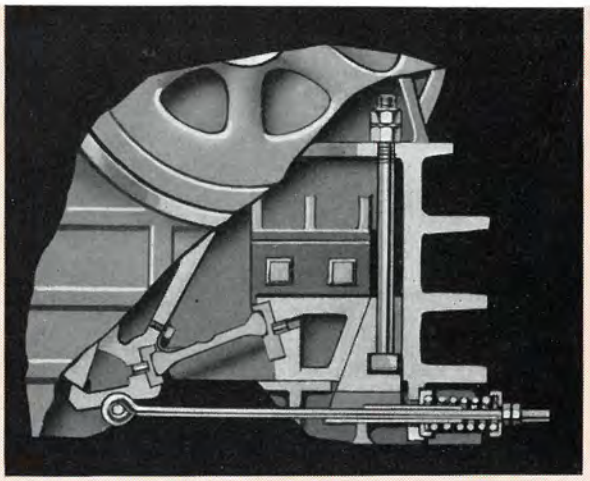
ALL-WELDED STEEL FRAMES ON 14″×24″, 25″×3(

LSMITH JAW CRUSHERS

/EN SIZES FROM 10" x 21" TO 42" x 48"



Sectional view showing shim adjustment on 14" × 24" and larger sizes.



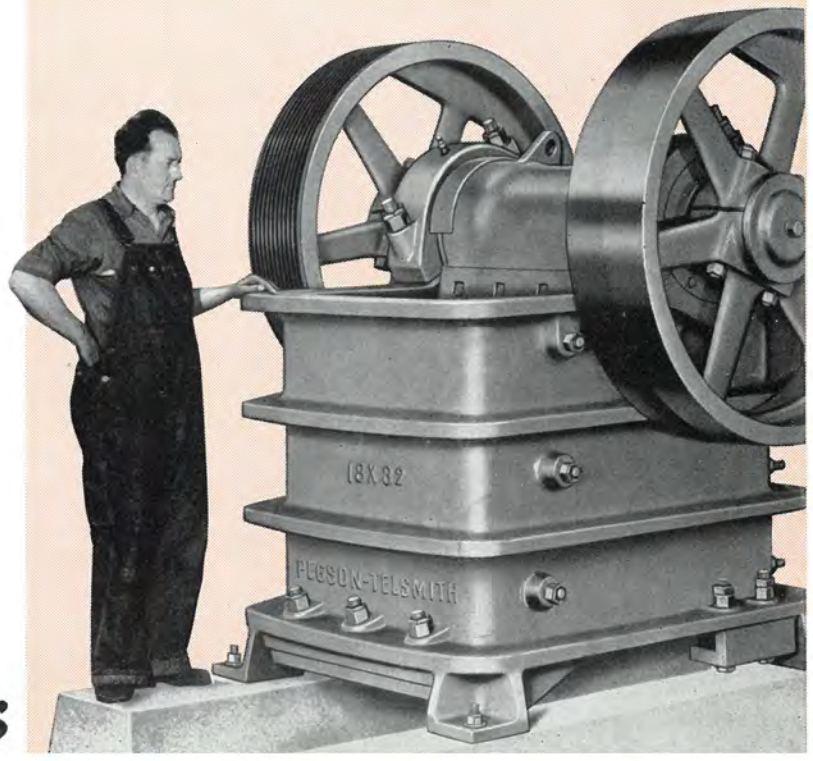
The sectional view above shows the wedge type adjustment used on 10" × 21" and 10" × 36" sizes, also the method of holding jaw dies in all sizes except 18" × 32", 30" × 42" and 42" × 48".

ADJUSTMENT

As illustrated on this page, the smaller sizes have wedge and the larger models shim adjustment. With the former, an adjustable wedge is raised or lowered to move a sliding toggle block and the swinging jaw to enlarge or decrease the discharge opening. Adjustment can be made during running. In the shim type, adjusting screws on the sliding toggle block move it forwards to insert or remove shims between the block and the frame. The shim type is more rigid than the wedge, but not as flexible for fine crushing. During operation, both wedges and shims are bolted rigidly in place, preventing wear or breakage of adjusting mechanism. A replaceable toggle bearing between the toggle and block protects the latter from toggle wear. Ends and seats are machined for full contact across faces.

LUBRICATION

A good quality bearing grease should be used for the eccentric shaft bearings, which have nipples for high pressure lubrication. Both toggle bearings, which are of the rocking type, operate dry and require no lubrication.



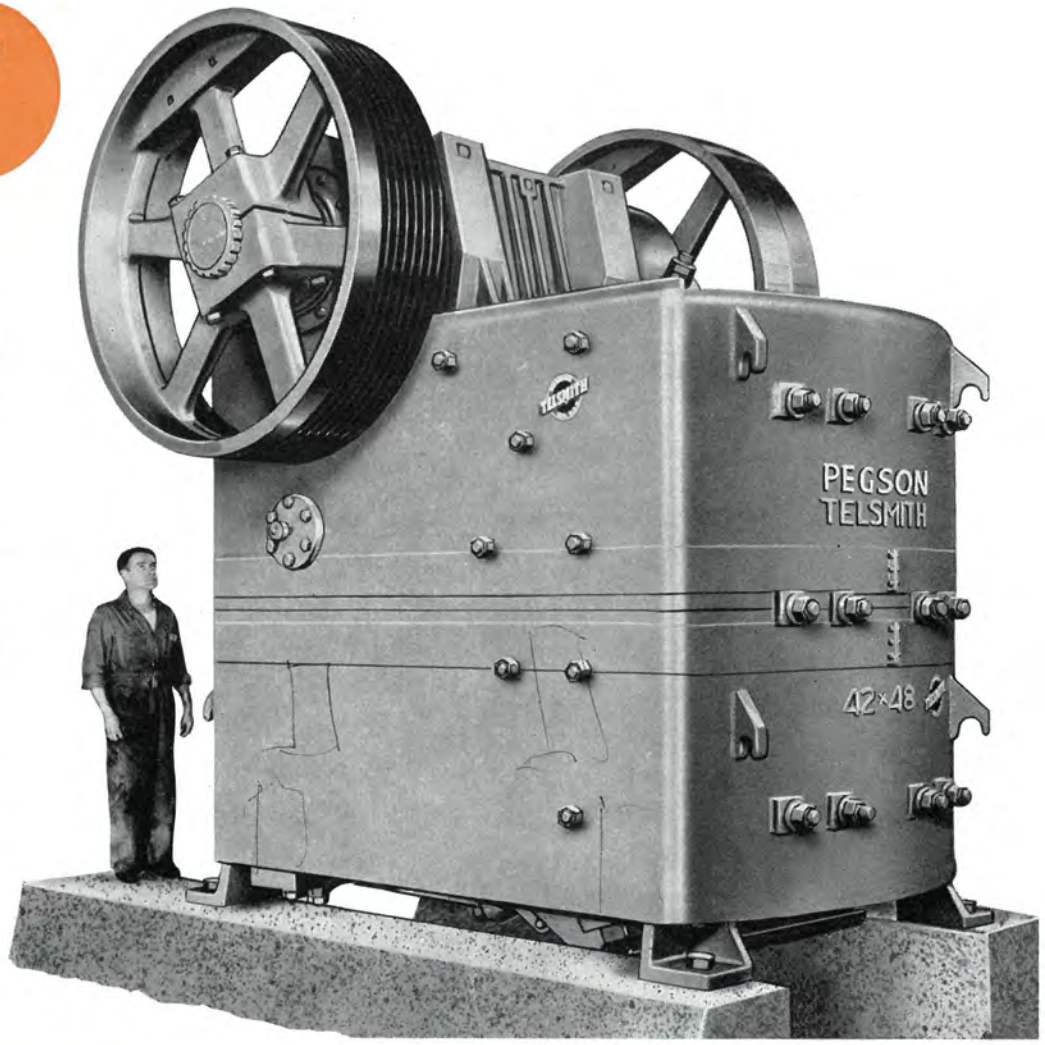
", 30"×42" AND 42"×48" SIZES

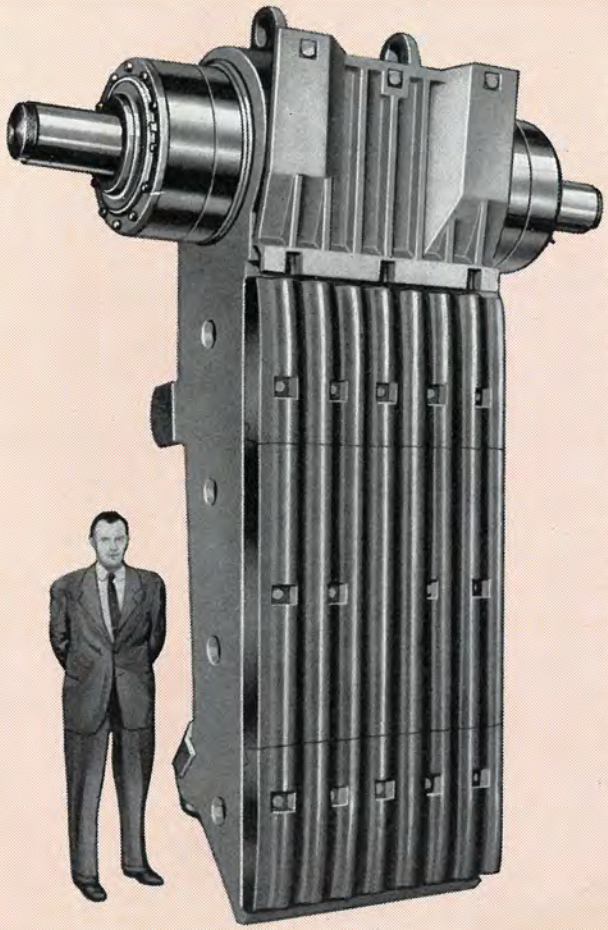
The NEW

42" × 48"

WITH WELDED STEEL FRAME

The welded main frame is a two-piece double-wall box section, with ROUNDED CORNERS which place the side plates in tension and eliminate possible shearing action. Main frame members are continuous welded, giving a much greater area of weld and thus providing greater strength. After welding, the main frame is STRESS RELIEVED, a feature found in few, if any, other large overhead eccentric crushers. The back of the main frame is unusually high and well supported, thus reducing the possibility of weaving of the bearing pedestals. Accurately machined surfaces provide perfect fit and contact for jaws, toggle block and main frame bearing housings. Main frame bearing supports are cast steel inserts perfectly welded into the upper frame member and tied together in the back by a heavy steel tube. The adjusting wedge block is located much higher than in other crushers of this type, which gives lower pressure against the back of the main frame.





THE JAWSTOCK, shown on the left, is a massive steel casting of deep, box type construction, also carefully annealed to eliminate all internal strains. It is accurately machined to provide a perfect fit for the jawstock bearings, the toggle seat and a perfect contact for the manganese jaws. Note the huge, replaceable manganese steel hub protector to prevent wear on this expensive casting—a feature found in no other crushers of this type and size. Note the special thrust plates on each side which transmit pitman side thrust direct to the main frame through special thrust shafts—thus relieving the roller bearings of this additional load.

LARGE DIAMETER forged steel eccentric shaft. Self-aligning, double row spherical roller bearings. Reversible manganese jaw sections. Heavily corrugated jaws ground on back for perfect contact. Two-piece manganese steel cheek plates. Large diameter flywheels of split hub design. Quick and easy adjustment of discharge opening or toggle changing by means of hydraulic jacks.

THE 42″×48″ WITH WELDED STEEL FRAME

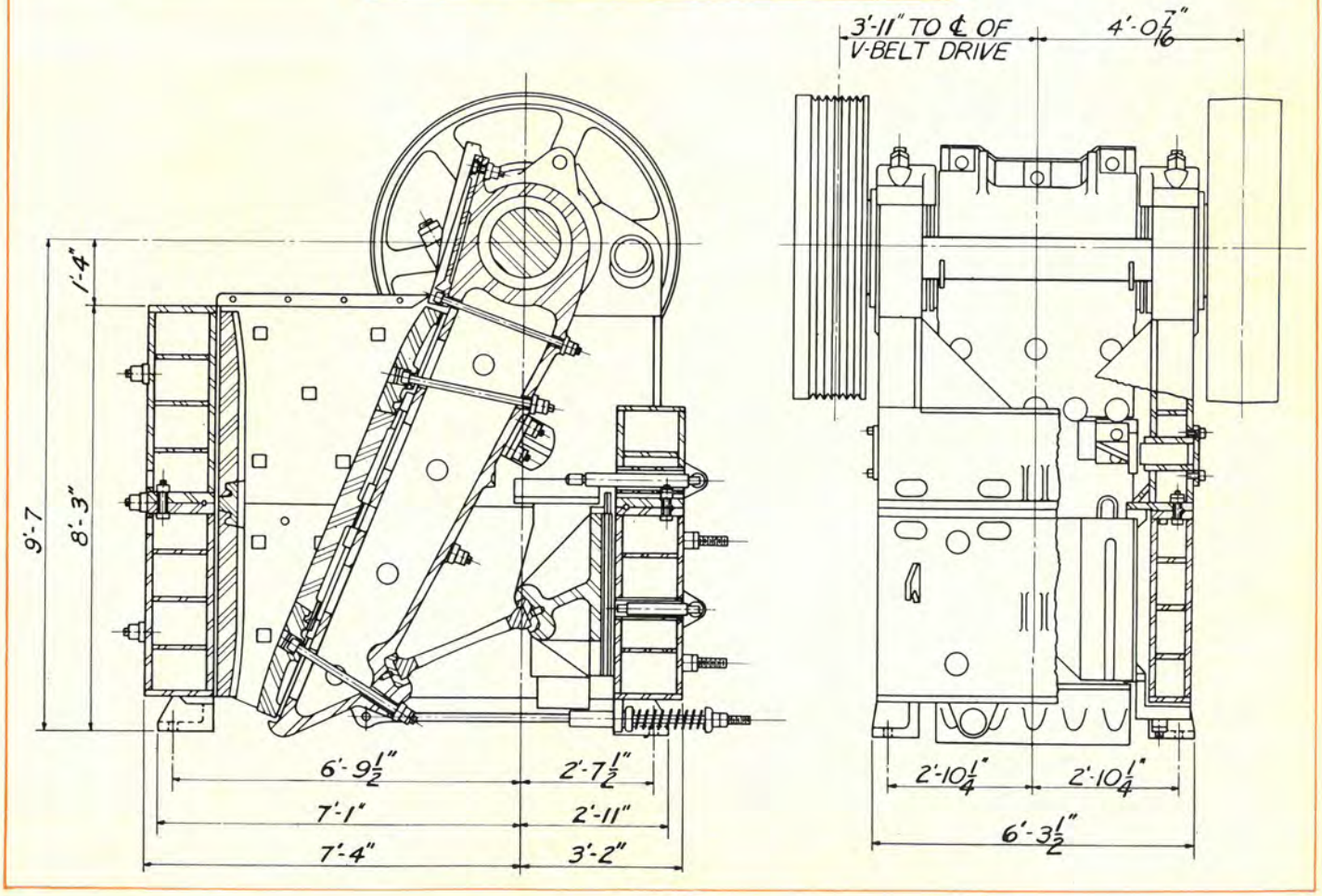
SPECIFICATIONS

Size of Crusher (feed opening) (Note 1)	42″ × 48″	Code Word JOULE
Net Weight, Crusher, approx.	105,800 lbs.	48,000 kgs.
Weight, crated, approx.	106,700 lbs.	48,400 kgs.
Cubical Contents, crated, approx.	1,616 cu. ft.	45.7 cu. mts.
Pulleys, diam. × face	72″ × 17″	1,829 mm. × 432 mm.
Speed of Pulleys, R.P.M.	220	
H.P. required (Note 2)	150 - 220	

DISCHARGE OPENING (Note 3)		CAPACITY	
Jaws in OPEN Position (Note 5)	Jaws in CLOSED Position (Note 5)	Long Tons Per Hour (Note 4)	Short Tons Per Hour (Note 4)
(Note 6) 6″ (152 mm.)	(Note 6) 5″ (127 mm.)	180 - 220	202 - 246
7″ (178 mm.)	6″ (152 mm.)	220 - 280	246 - 314
8″ (203 mm.)	7″ (178 mm.)	270 - 335	302 - 375
9″ (229 mm.)	8″ (203 mm.)	310 - 390	347 - 437
10″ (254 mm.)	9″ (229 mm.)	355 - 445	398 - 498
11″ (279 mm.)	10″ (254 mm.)	405 - 510	454 - 571
12″ (305 mm.)	11″ (279 mm.)	455 - 570	510 - 638

1. To obtain the capacities specified, a feeder should be used ahead of the crusher to give a continuous regulated feed ; all feed should be of a size that will enter the crushing chamber readily, and undersize material should be removed from the feed by means of a grizzly or scalping screen to eliminate packing and excessive wear on the jaws.
2. The horsepower required varies with the size of the product being made, the capacity and the hardness of the rock or ore.
3. No crusher, when set with any given discharge opening, will make a product all of which will pass a screen opening of the same dimensions as the given discharge opening. The amount of oversize will vary with the character of the rock.
4. The capacities given are in long tons of 2,240 lbs. and short tons of 2,000 lbs. They are based on crushing clean, dry limestone weighing loose about 2,600 lbs. per cubic yard and having a specific gravity of 2.6. Wet, sticky feeds will tend to reduce crusher capacities.
5. The discharge opening of a Jaw Crusher is usually measured with the jaws in the open position, which is the position when the crusher is at rest. As some manufacturers give capacity ratings with the jaws in the closed position, both are shown. There is a little over 1″ difference between open and closed positions.
6. It is not usually economical to operate this crusher with a discharge opening smaller than shown in the table. Consult Pegson Ltd. if it is desired to use a smaller or larger discharge opening than included in the table.

GENERAL DIMENSIONS



SPECIFICATION—PEGSON TELSMITH SINGLE TOGGLE CRUSHERS

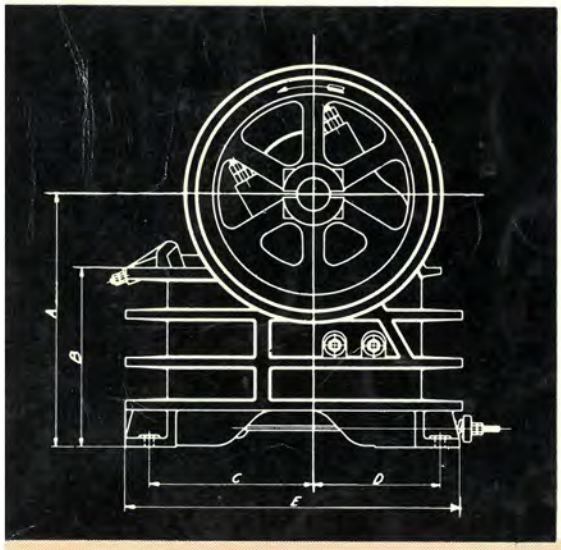
Size of Feed Opening (Note 1)	10″ × 21″	10″ × 36″	14″ × 24″	18″ × 32″	25″ × 36″	30″ × 42″
Net Wt. of Crusher, approx.	lbs. kilos. 5,650 2,540	lbs. kilos. 11,000 5,000	lbs. kilos. 10,000 4,540	lbs. kilos. 19,000 8,620	lbs. kilos. 38,000 17,250	lbs. kilos. 58,000 26,350
Weight, crated, approx. ..	6,000 2,720	11,500 5,230	10,500 4,770	19,800 9,000	39,000 17,700	59,000 26,800
Cubic contents, crated ..	cu. ft. cu. mts. 130 3.68	cu. ft. cu. mts. 185 5.24	cu. ft. cu. mts. 165 4.67	cu. ft. cu. mts. 370 10.47	cu. ft. cu. mts. 650 18.39	cu. ft. cu. mts. 900 25.47
Horsepower (Note 2) ..	20	35	35	60	75 - 100	100 - 150
Drive Pulley — Diameter ..	ins. mm. 33 838	ins. mm. 38 965	ins. mm. 38 965	ins. mm. 48½ 1,232	ins. mm. 60 1,524	ins. mm. 60 1,524
Drive Pulley — Face ..	8½ 216	10½ 267	10½ 267	12½ 318	14½ 368	14¾ 375
Drive Pulley — Bore ..	3 15/16 100	4¾ 121	4¾ 121	6 152	7 178	7 178
Drive Pulley — R.P.M. ..	350	320	320	275	250	250
CAPACITY — See Notes 1, 3 and 5						
Discharge Opening (Note 4)	Long tons/hr. Short tons/hr.	Long tons/hr. Short tons/hr.	Long tons/hr. Short tons/hr.	Long tons/hr. Short tons/hr.	Long tons/hr. Short tons/hr.	Long tons/hr. Short tons/hr.
1¼″ (32 mm.) ..	10 - 13 11 - 14½					
1½″ (38 mm.) ..	12 - 16 13½ - 18	23 - 32 25 - 36				
2″ (51 mm.) ..	15 - 22 17 - 25	31 - 42 35 - 47	20 - 29 22 - 32			
2½″ (63 mm.) ..	20 - 27 22 - 30	38 - 53 43 - 59	26 - 36 29 - 40	40 - 54 45 - 60		
3″ (76 mm.) ..		46 - 63 52 - 71	31 - 43 35 - 48	47 - 65 53 - 73		
3½″ (89 mm.) ..			35 - 46 39 - 52	55 - 75 62 - 84	77 - 106 86 - 119	
4″ (102 mm.) ..				63 - 85 71 - 95	89 - 121 100 - 136	104 - 141 116 - 158
5″ (127 mm.) ..				79 - 108 88 - 121	111 - 152 124 - 170	130 - 179 146 - 200
6″ (152 mm.) ..					134 - 183 150 - 205	157 - 215 176 - 240
7″ (178 mm.) ..						180 - 247 202 - 276
Code-word	*Jomelle*	*Jolly*	*Journey*	*Joist*	*Jotham*	*Jotunn*

Approx. Overall Dimensions	10″ × 21″	10″ × 36″	14″ × 24″	18″ × 32″	25″ × 36″	30″ × 42″
	ins. mm.	ins. mm.	ins. mm.	ins. mm.	ins. mm.	ins. mm.
Dimension A	35½ 902	37½ 953	38 965	52¾ 1,340	71 1,803	82 2,083
Dimension B	29½ 749	26½ 673	37 940	45¾ 1,162	62¼ 1,581	72 1,829
Dimension C	22¼ 565	24½ 632	25 635	39 991	52¾ 1,340	60¾ 1,543
Dimension D	15⅞ 403	18½ 470	16 406	19¾ 502	22 559	26 660
Dimension E	42⅛ 1,070	45 1,143	48⅝ 1,235	63¾ 1,619	86½ 2,197	98 2,489
Dimension F	21 7/16 541	33½ 851	24¾ 629	31¾ 807	36⅜ 924	41½ 1,054
Dimension G	11½ 292	12½ 317	12½ 317	15¾ 400	16½ 419	16⅝ 422
Dimension J	15 381	25⅜ 645	19¾ 502	23¼ 590	29⅜ 746	31⅜ 797
Dimension K	2 51	2 51	2¼ 57	2½ 63	3 76	4 102
Dimension M	4 102	4 102	4 102	5¼ 133	5 127	5 127
Dimension N	6½ 165	6½ 165	6½ 165	8½ 216	8½ 216	8½ 216
Dimension O	2 15/16 75	2 15/16 75	2 15/16 75	3 7/16 87	3 15/16 100	3 15/16 100

1. To obtain the capacities specified, all feed to primary crushers should be smaller than the feed opening of the crusher in at least one dimension.

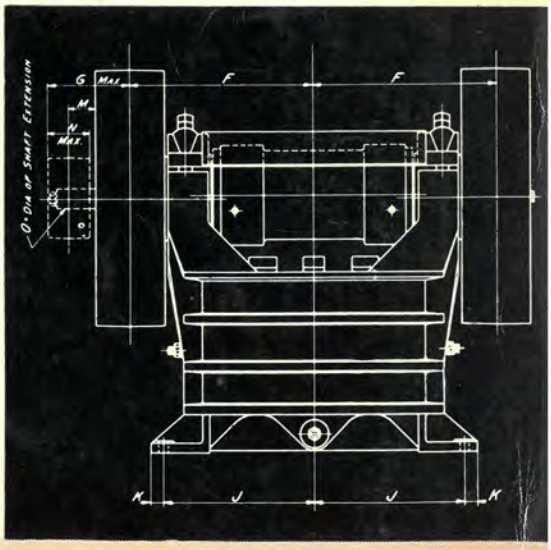
2. The horsepower required varies with the size of the product being made with the crusher, the capacity and the hardness of the rock or ore.

3. The capacities given are in long tons of 2,240 lbs. and short tons of 2,000 lbs. They are based on crushing limestone weighing loose about 2,600 lbs. per cubic yard and having a specific gravity of 2.6.



4. No crusher, when set at any given discharge opening, will produce a product all of which will pass a screen opening of the same dimensions as the given discharge opening. The amount of oversize will vary with the character of the rock. The discharge opening of a Jaw Crusher is measured with the jaws in the open position. For close settings, all undersize material should be removed from the feed so as to eliminate packing and excessive wear on the jaws.

5. Where no rating is specified in the capacity table for a certain discharge opening, the crusher cannot be operated economically at that opening.



PEGSON

Built within the Bentley Group by:
PEGSON LIMITED · ENGINEERS · COALVILLE · LEICESTERSHIRE · ENGLAND
Telephone: COALVILLE 1234 (10 lines)
Cables and Telegrams: PEGSON, COALVILLE
London Office: IDDESLEIGH HOUSE, CAXTON STREET, WESTMINSTER, S.W.1
Telephone: ABBey 2373
Scottish Office: 7, LISTER ROAD, HILLINGTON INDUSTRIAL ESTATE, GLASGOW.
Telephone: HALFWAY 1800