

**TEREX JAQUES SINGLE TOGGLE JAW CRUSHER**

- ▲ Heavy duty design
- ▲ Large gape feed openings
- ▲ High production
- ▲ Low operating costs

# Single Toggle Jaw Crushers

We have been manufacturing jaw crushers for 120 years and over this period have gained a reputation for producing heavy duty machines to match the most arduous crushing conditions encountered.



Typical applications for our single-toggle jaw crushers are in mining, quarrying and recycling. The jaw crushers handle ores, rock, gravel and recycled concrete.

These rugged machines are manufactured with heavy duty parts for constant operation and long life.

Each machine is backed by the Terex Jaques total after-market service and spare parts support.

## ▼ Benefits and Features

### ▶ **One-piece frame of great strength.**

Heavy, fully welded stress relieved

### ▶ **Fatigue resistance.**

Large diameter forged alloy steel eccentric shaft, polished to a fine finish and with no screw threads or sharp radii that can cause stress concentrations.

### ▶ **Constant shaft alignment.**

Self aligning spherical roller bearings.

### ▶ **Even distribution of crushing forces.**

Machined jaw-face locations.

### ▶ **Protection of swing jaw holder and main-frame jaw locations.**

Replaceable jaw backing plates.

### ▶ **Bearings kept free from dust and water.**

Grease-purged labyrinth dust seals.

### ▶ **Extended life of toggle and toggle seats.**

The rocking-end toggle requires no lubrication. The toggle rolls across the flat pressure face of the toggle seat. Friction is kept to a minimum and no lubrication is required.



### ▶ **Pitman (jaw holder) designed to handle severe crushing conditions.**

Cast steel and precision machined.

### ▶ **Designed for easy maintenance.**

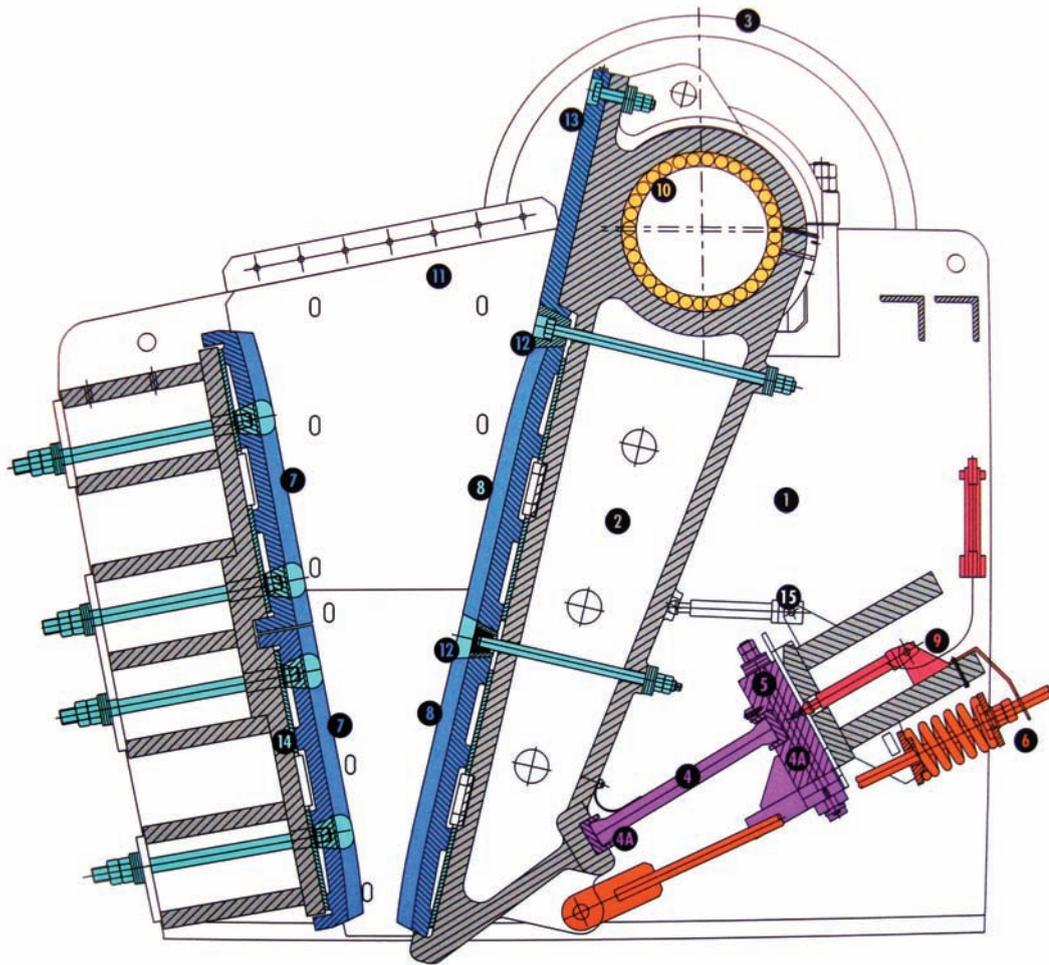
Cast steel pitman can be removed from the frame as an assembly.

### ▶ **Smooth running operation.**

Balanced flywheel and drive pulley.

# Single Toggle Jaw Crusher Construction Details

## ▼ Cross Section of Single Toggle Jaw Crusher



### KEY

- Wear Parts
- Roller Bearings
- General Parts
- Main Frame & Jaw-Holder
- Hydraulic System
- Toggle Mechanism
- Tension Rod Assembly

1	Main Frame	8	Moving Jaw-Faces
2	Jaw-Holder	9	Hydraulic Adjustment
3	Fly Wheel & Vee Pulley	10	Shaft Assembly
4	Toggle	11	Side Liners
4A	Toggle Seats	12	Jaw Face Wedges
5	Toggle Block	13	Jaw Holder Protector
6	Tension Rod Assembly	14	Replaceable Backing Plates
7	Fixed Jaw-Faces	15	Maintenance Tool

### ► Main Frame

Fully fabricated heavy-duty designs on all models. Fully stress relieved after fabrication. Our designs have been thoroughly field tested under arduous conditions.

Heavy-duty frames of low carbon steel plate, reinforced with ribs, are fabricated with all mounting surfaces fully machined to accurately align critical components.



### ► Main Shaft

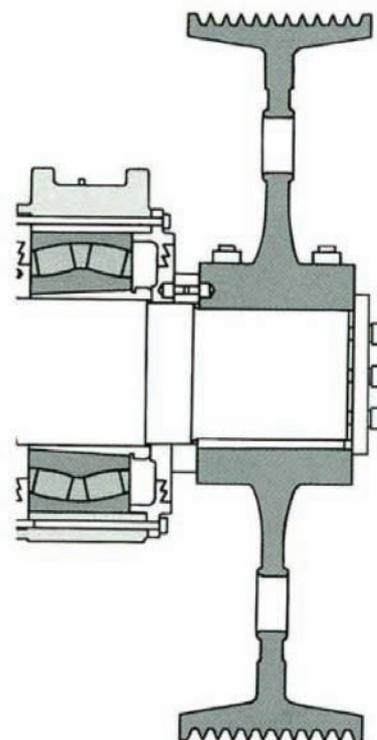
Forged from hardened and tempered alloy steel with particularly large diameters to suit heavy-duty applications. High fatigue resistance due to a fine finish and the elimination of screw threads and sharp radii which can contribute to stress concentrations.

### ► Bearings

Heavy duty self aligning double row roller bearings on both jaw-holder and main frame.

### ► Dust Seals

Grease purged labyrinth dust seals.



## Single Toggle Jaw Crusher Construction Details

### ▶ Jaws

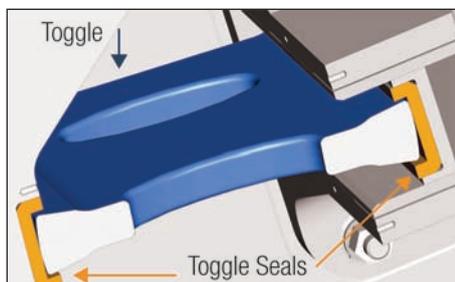
Back faces of all jaws are machine ground to provide firm support. Two piece reversible jaws are provided on our larger crushers to allow maximum jaw life. The jaw-faces are fully reversible. Replaceable jaw-face backing plates are provided to protect the machined jaw-face locations and the jaw-holder guard, provides protection for the jaw-holder bearing housing.



### ▼ Toggle

The toggle rolls across the flat pressure face of the toggle seat. No rubbing or scuffing takes place and friction is kept to a minimum. This type of toggle system has the following advantages over the socket end type toggle and seat:

- No lubrication whatsoever is required
- The system can handle far greater crushing pressures.
- The life factor of toggle and seats is many times greater.

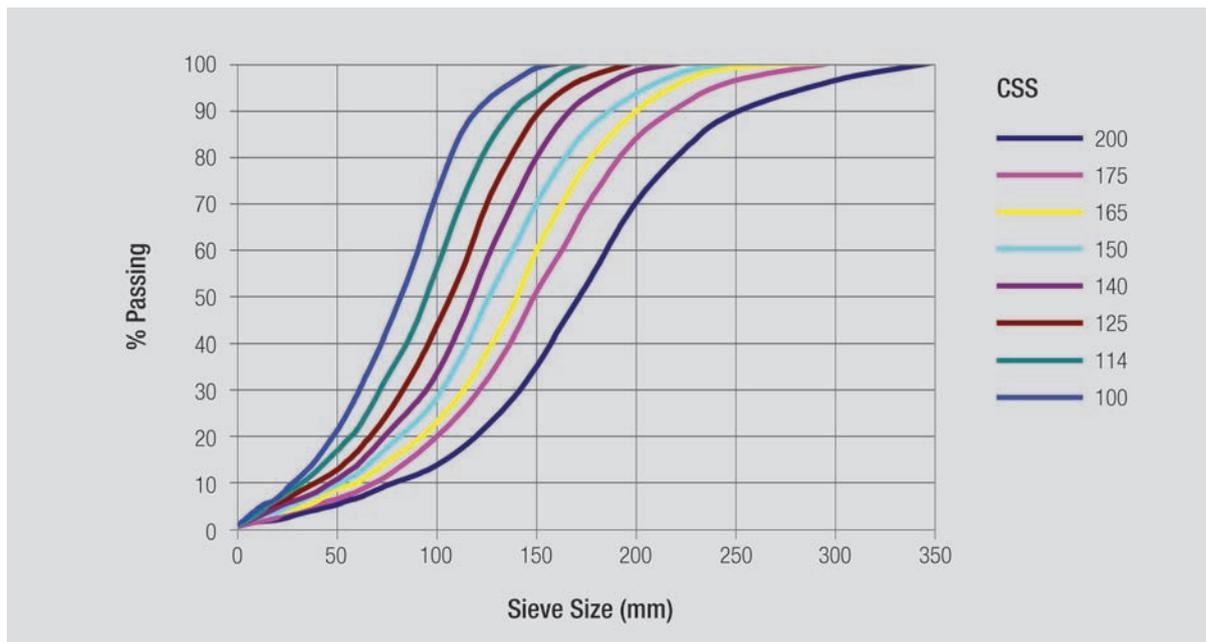


### ▼ Jaw-holder & Main Bearing Housings

Can be removed from the frame as an assembly. The jaw-holder is a robust box construction with a fully machined face to support the moving jaw.



## Jaw Crusher Product Gradations



Footnote: These product curves are to be used as a guide only. Crusher product is dependant on feed material properties. Please consult Terex Jaques for advice on product gradations for specific feed materials

### ▲ Machine Selection Product Grading

The typical curves illustrated only give a very broad indication of the likely product. Factors that markedly affect results are:

- Structure of material
- Grading of crusher feed
- Degree of pre-scalping
- Choke versus regulated feed

We are pleased to examine specific applications, crush material samples and advise on the likely results from our machines without obligation.

### ▲ Machine Capacity

The accompanying tables give typical outputs for our range of machines. These need careful interpretation for particular materials and applications.

### Machine Rigidity

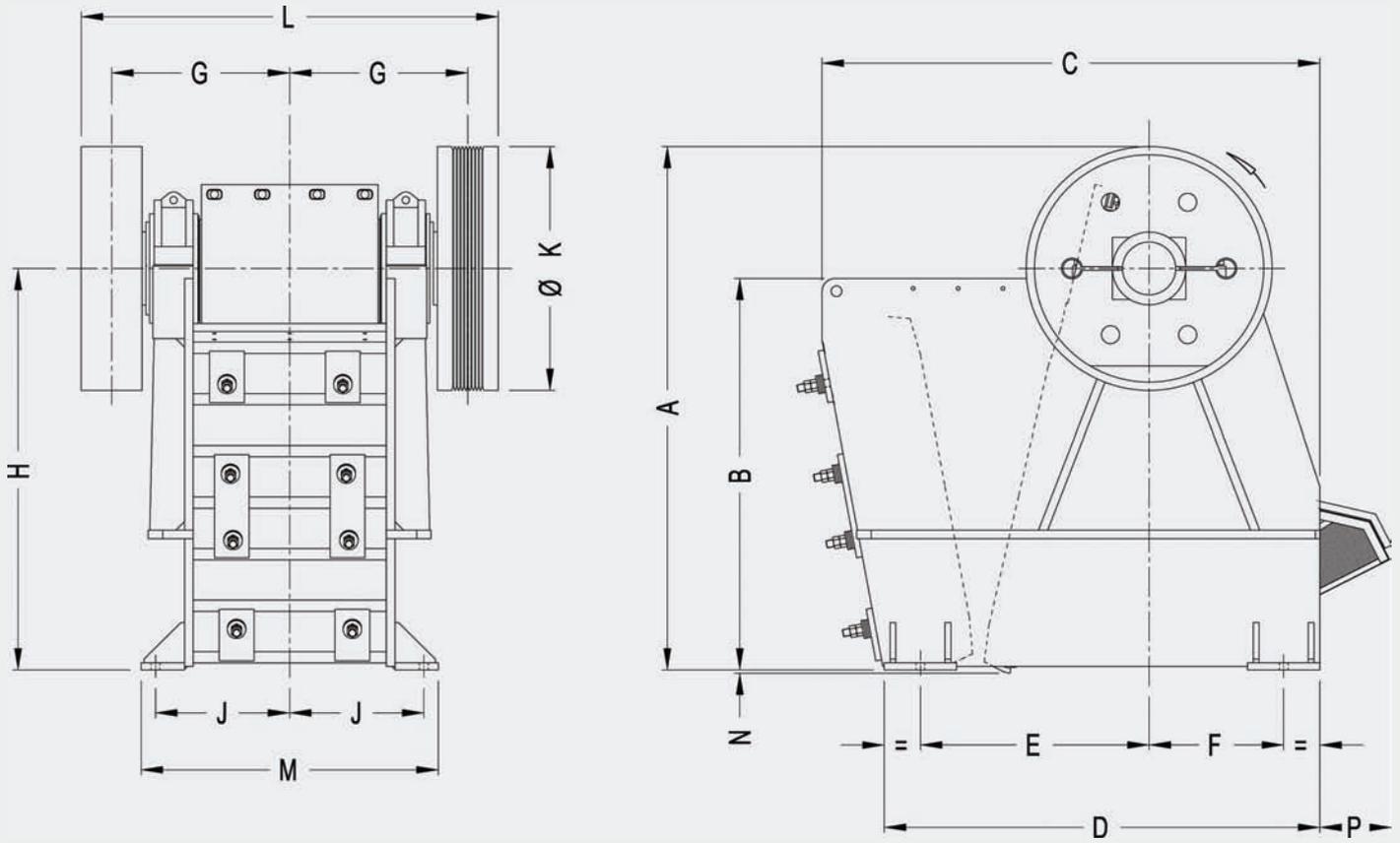
Wide differences occur in bearing diameters, shaft stiffness, frame rigidity and overall robustness in different makes of machines. In some countries the majority of natural materials are soft and machines of very light design are acceptable.

We have found that most Australian conditions impose exceptionally heavy continuous loads and our machines are designed to meet these demands.

### Options Available on request:

- Automatic lubrication system for bearings and seals
- Bearing temperature sensors
- Drives
- Guards for flywheels and drive

## Single Toggle Jaw Crusher Specifications & Dimensions



<b>Machine Specifications</b>				
		<b>Model</b>		
		<b>Feed Opening</b>		
		<b>ST47</b> (1220 x 915 mm) 48 x 36 inch	<b>ST48</b> (1220 x 1065 mm) 48 x 42	<b>ST60</b> (1500 x 1275mm ) 60 x 50 inch
A	mm	3190	3645	4140
	inch	125.6	143.5	163
B	mm	2250	2725	3170
	inch	88.6	107.3	124.8
C	mm	3370	3440	4170
	inch	132.7	135.4	164.2
D	mm	3005	3010	3720
	inch	118.3	118.5	146.5
E	mm	1400	1580	2020
	inch	55.1	62.2	79.5
F	mm	1100	930	900
	inch	43.3	36.6	35.4
G	mm	1245	1230	1420
	inch	49	48.4	55.9
H	mm	2340	2795	3170
	inch	92.1	110	124.8
J	mm	927	927	1110
	inch	36.5	36.5	43.7
K	mm	1700	1700	1940
	inch	67	67	76.4
L	mm	2910	2880	3190
	inch	114.5	113.4	125.6
M	mm	2055	2055	2420
	inch	80.9	80.9	95.3
N	mm	60	50	0
	inch	2.4	1.9	0
P	mm	430	445	300
	inch	17	17.5	11.9
R	mm	1350	1180	1300
	inch	53.1	46.5	51.2

Footnote: Dimensions shown are approximate only and could be subject to change - Use only certified installation drawings for construction purposes.  
#Drive pulley only on this machine.

# Single Toggle Jaw Crusher Specifications & Dimensions

## Table of Capacities

The tables on pages 9 and 11 set out the sizes in which the Terex Jaques Single Toggle Jaw Crusher are built and general data regarding capacities, weights etc.

## Installation Drawings

Certified installation drawings are supplied as part of the contract for each crusher.

## Foundation bolts

Foundation bolts are not furnished unless specially ordered at an extra cost.

## Data Checklist for Jaw Crusher Selection

- Type of material to be crushed
- Bulk density of feed material
- Maximum lump size
- Characteristics of the material – hard, soft, slab like, moist or wet, sticky, contains clay or other deleterious materials
- Capacity in tonnes per hour
- Method of feeding to be adopted. Apron feeder, vibrating grizzly.

Complete information furnished in accordance with the above will enable us to study the installation contemplated and make recommendations as to the size of crusher best suited to the duty proposed.

Approximate throughputs in tonnes per hour					
C.S.S		Units	Model (Feed Opening)		
			ST47 (1220 x 915 mm) 48 x 36 inch	ST48 (1220 x 1065 mm) 48 x 42 inch	ST60 (1500 x 1275 mm) 60 x 50 inch
(mm)	(inch)				
100		mtph	190 - 210		
	4	stph	209 - 231		
114		mtph	230 - 260		
	4.5	stph	253 - 287		
125		mtph	265 - 295	285 - 315	
	5	stph	292 - 325	314 - 347	
140		mtph	310 - 340	335 - 370	430-475
	5.5	stph	342 - 375	369 - 408	475 - 525
150		mtph	340 - 370	370 - 410	465 - 515
	6	stph	375 - 408	408 - 452	512 - 568
165		mtph	380 - 420	405 - 450	520 - 575
	6.5	stph	419 - 463	446 - 496	573 - 634
175		mtph	410 - 450	445 - 490	555 - 615
	7	stph	452 - 496	490 - 540	612 - 678
200		mtph	485 - 535	535 - 590	625 - 690
	8	stph	534 - 590	590 - 650	689 - 760
225		mtph	550 - 610	585 - 650	700 - 775
	9	stph	606 - 672	645 - 716	771 - 854
250		mtph		660 - 730	775 - 860
	10	stph		727 - 804	854 - 948
275		mtph			855 - 945
	11	stph			942 - 1041
300		mtph			930 - 1030
	12	stph			1025 - 1135
<b>Max RPM</b>		RPM	225	225	200
		-	-	-	-
<b>Max Power Output</b>		kW	150	185	250
		HP	200	250	335
<b>PCD of Vee Pulley</b>		mm	1690 9SPC	1690 9SPC	1930 10SPC
		inch	66.15	66.53	77
<b>Heaviest Lift</b>		Tonne	13.0	15.8	31.5
		Lbs	28650	34825	69425
<b>Total Weight</b>		Tonne	37.0	42.0	77.2
		Lbs	81550	92570	170150

Note: Above capacities are based on crushing a dry, free flowing, readily friable material having a bulk density of 1600Kg/m<sup>3</sup>. The capacity and subsequent product gradation will be affected by the method of feeding, characteristics of the feed, moisture, hardness, material size and shape. All information included herein is subject to change without notice.



**TEREX JAQUES SINGLE TOGGLE JAW CRUSHER**

- ▲ Heavy duty design
- ▲ Large gape feed openings
- ▲ High production
- ▲ Low operating costs

The Terex Jaques product range also includes apron feeders, jaw crushers, vibrating screens, grizzlies and impactors. For more information about Terex Jaques Single Toggle Jaw Crushers or other products, contact a Terex Jaques technical advisor.

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