

SINGLE TOGGLE CRUSHERS



DESIGN FEATURES INCLUDE:

- More than 80 years of crusher design, manufacture and operational knowhow behind Goodwin Single Toggle Roller Bearing Crushers.
- Crushers offer all round performance with high outputs. Good product shape, reliability and economical running costs.
- The rugged reliable Goodwin Single Toggle Jaw Crusher incorporates recently introduced geometry changes producing extra bite in the crusher action, and ensures an excellent cubical product even with the most difficult rocks.
- The heavy robust, stress relieved frame is designed for added protection against the most difficult materials and the heavy duty bearings ensure longer running life.
- The jaws are reversible or interchangeable to obtain maximum wear.
- To ensure versatility to the lower end of the range of Single Toggle Crushers, we offer conversion sets to transform the smaller crushers to granulators.

SPECIFICATION

FRAME

Heavy robust construction fabricated from steel plate. Caps stepped into lower halves of bearing cases secured with high tensile steel bolts, making bearings extremely rigid. The whole structure is stress relieved before machining.

JAWSTOCK

Cast steel and heavily ribbed to eliminate any tendency to flex under great pressure. Bored to accept self-aligning bearings and fitted with labyrinth seals to ensure complete bearing protection. Jaw bed machined parallel with bore providing accurate seating for the swing jaw.

SHAFT

High tensile steel forging machine to high degree of accuracy.

BEARINGS

Heavy duty double row self-aligning bearings mounted in frame and jawstock protected by carefully machined labyrinth seals.

JAWS

Cast from manganese steel and fitted with steel backing plates. In the larger machines jaws are made in sections for easy handling and can be reversed top to bottom

and can be interchanged to obtain maximum life. Small machines have single piece jaws which can be reversed from end to end as wear takes place.

SIDE PLATES

Cast from manganese steel to ensure long life. On sizes up to and including 915 x 610 mm (36" x 24") single piece plates are used. In the larger crushers they are made in sections for ease of handling.

TOGGLE PLATES & GROOVES

Toggle plates of high grade cast iron with chilled ends, the toggles seating in the radii of the renewable manganese steel grooves for crushers up to 915 x 255 mm (36" x 10"). Automatic lubrication fitted. On machine size 915 x 305mm (36" x 12") and upwards rolling type toggles are fitted. In cast steel for sizes other than the 915 x 305mm machine has toggle plates of high grade cast iron. The rolling type of toggle is not lubricated. An automatic toggle alignment device is incorporated into crushers size 915 x 610mm (36" x 24") and upwards.

FLYWHEELS

Accurately machined and balanced during works testing. Of the solid disc type cast in high grade iron. Right Hand flywheel groove to accept standard vee belt drive, the left hand drive can be arranged if required.

WEDGE & WEDGEBLOCK

For machines up to 915 x 305mm (36" x 12") these are of best quality cast iron. All contact faces machined and accurately seated into frame. On the 915 x 610mm (36" x 24") and upwards adjustment is by shims and therefore there is no wedge. Also the groove is carried in a cast iron block and jacks can be incorporated to ease fitting and withdrawal of shims.

DRAWBAR ROD ASSEMBLY

The rod is manufactured of steel. Spring carried in cast iron buffer plate. On the larger machines the spring is enclosed in a grease packed cylinder.

CONVERSION EQUIPMENT

Kits are available for converting the two smallest crushers into 405 x 150mm and 510 x 150mm (16" x 6" and 20" x 6"). (Granulators).

DISCHARGE SETTING-ADJUSTMENT

For machines up to 915 x 305mm (36" x 12"), adjustment is by wedge and wedgblock. For machines 915 x 610mm (36" x 24") and upwards, adjustment is by shims. An hydraulic adjustment aid is fitted to the 1400 x 1100mm (55" x 43") machine as standard and is available as an optional extra on other shim adjusted machines.

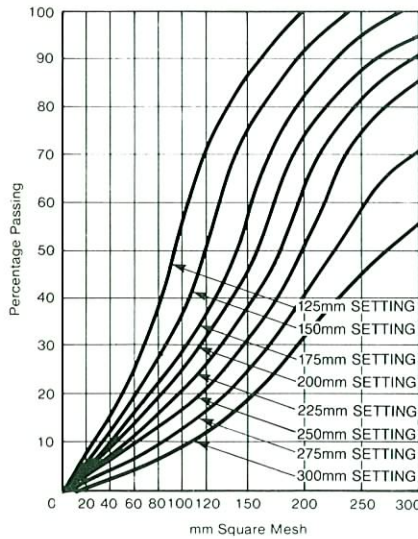
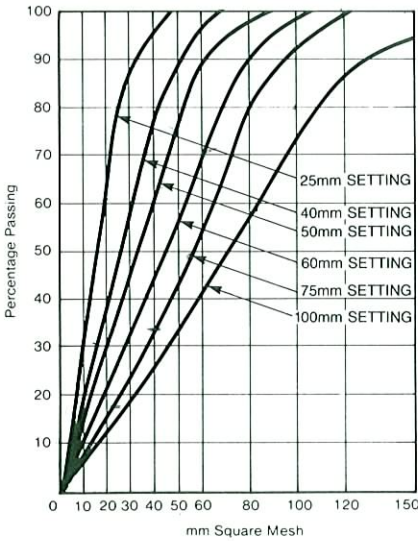
SINGLE TOGGLE CRUSHERS

Capacities APPROX (Tonnes per hour)

Size of Mouth mm	Min CSS mm	Closed Side Setting (mm)															KW (HP)	RPM	
		25 (1")	40 (1½")	50 (2")	60 (2¼")	75 (3")	90 (3½")	100 (4")	125 (5")	150 (6")	175 (7")	200 (8")	225 (9")	250 (10")	275 (11")	300 (12")			
405 x 255 16" x 10"	25 (1")	14— 17	17— 20	20— 24	24— 28	32— 36												15-18.5 (20-25)	320
510 x 255 20" x 10"	25 (1")	17— 22	21— 26	25— 30	30— 35	40— 45												18.5-22 (25-30)	320
610 x 380 24" x 15"	40 (1½")		25— 30	30— 36	36— 42	48— 55	58— 70	70— 85										37-45 (50-60)	320
760 x 455 30" x 18"	50 (2")			40— 50	50— 60	68— 85	75— 95	80— 100	100— 120	120— 140								45-55 (60-75)	320
915 x 255 36" x 10"	25 (1")	25— 38	40— 60	45— 65	55— 75	70— 100												37-45 (50-60)	320
915 x 305 36" x 12"	40 (1½")		40— 60	45— 65	55— 75	70— 100	80— 110	90— 120										45-55 (60-75)	320
915 x 610 36" x 24"	60 (2¼")				70— 90	90— 120	100— 135	110— 150	135— 175	160— 205	180— 230	200— 250						75-90 (100-125)	250
1065 x 610 42" x 24"	60 (2¼")				70— 95	95— 125	105— 140	120— 160	140— 190	160— 240								70-90 (100-125)	250
1065 x 610 42" x 24" Mk2	50 (2")			55— 80	70— 95	95— 125	105— 140	120— 160	140— 190	160— 240									
1065 x 760 42" x 30"	90 (3½")						120— 160	140— 190	165— 225	190— 260	220— 300	250— 330	280— 360					110-132 (150-175)	250
1220 x 915 48" x 36"	125 (5")								200— 255	230— 300	265— 345	300— 390	340— 430	380— 470				150-170 (200-225)	250
1400 x 1100 55" x 43"	120 (4¾")								250— 350	300— 400	350— 450	400— 500	450— 550	500— 600	550— 650	600— 700		185 (255)	200/ 225

Screening analysis

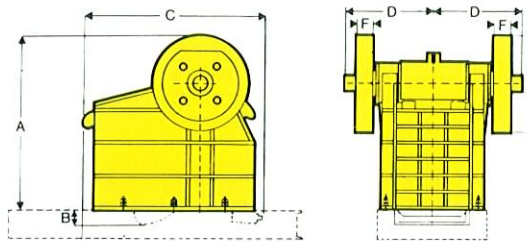
Setting measured at bottom of jaws in closed position



NOTES ON CRUSHER CAPACITIES AND SCREENING ANALYSIS

Capacities are based on crushing stone weighing 1600kg per cubic metre in broken form. The higher figures indicate the output expected when crushing hard limestone with a crushing strength of 1600—2100kg per sq. cm., the lower figure indicates capacities when dealing with harder stone such as granite. Capacities shown are estimated to be those obtainable when material fed to the crusher is in accordance with the European standard on crushing machines which states that it should all be greater than the applicable discharge opening or at least 75% larger than twice this dimension. Maximum feed size should not exceed approximately 80% of the lesser mouth opening in at least one direction.

The screen analysis curves are typical only. The settings are measured with the jaws in closed position. At coarse settings the quantity of slabs in the product may become quite pronounced, and under these circumstances the analysis might vary considerably from the curves which are based on material fracturing in cubical form. Actual results can only be determined by crushing tests as they will vary with the type of rock being handled, the method of feed and the size of pieces being fed to the machine.



Dimensions in millimetres—inches in brackets

Size of Mouth	Wt KG (Tons)	A	B	C	D	E	F
405 x 255 16" x 10"	2540 (2.50)	1295 (51)	125 (5)	1650 (65)	725 (28½)	915 (36)	150 (6)
510 x 255 20" x 10"	3454 (3.40)	1295 (51)	125 (5)	1650 (65)	785 (31)	915 (36)	150 (6)
610 x 380 24" x 15"	7316 (7.2)	1740 (68½)	135 (5¼)	2090 (82½)	965 (38)	1145 (45)	205 (8)
760 x 455 30" x 18"	9296 (9.15)	1805 (71)	150 (6)	2185 (86)	1025 (40¾)	1145 (45)	205 (8)
915 x 255 36" x 10"	7315 (7.2)	1380 (54¼)	125 (5)	2030 (80)	1115 (44)	1065 (42)	175 (7)
915 x 305 36" x 12"	8890 (8.75)	1600 (63)	125 (5)	2215 (87¼)	1100 (43¾)	1140 (44¾)	200 (7¾)
915 x 610 36" x 24"	19812 (19.50)	2525 (99½)	150 (6)	2665 (105)	1370 (54)	1625 (64)	290 (11½)
1065 x 610 42" x 24"	20830 (20.50)	2255 (89)	235 (9¼)	2650 (104½)	1140 (45)	1525 (60)	230 (9)
1065 x 610 42" x 24" Mk2	19210 (18.90)	2255 (89)	235 (9¼)	2650 (104½)	1140 (45)	1525 (60)	230 (9)
1065 x 760 42" x 30"	27992 (27.55)	2755 (108½)	215 (8½)	2920 (115)	1385 (54½)	1525 (60)	265 (10½)
1220 x 915 48" x 36"	41657 (41.00)	3175 (125)	215 (8½)	3300 (130)	1525 (60)	1675 (66)	375 (14¾)
1400 x 1100 55" x 43"	55881 (55.00)	3706 (146)	350 (13¾)	4065 (160)	1510 (59½)	2012 (79)	380 (15)



In pursuance of this company's policy of constant development, the right is reserved to depart without notice from any detail illustrated or specified in the leaflet without incurring the obligations to provide such modifications on machines previously delivered.