

DALTON MODEL "OSD"

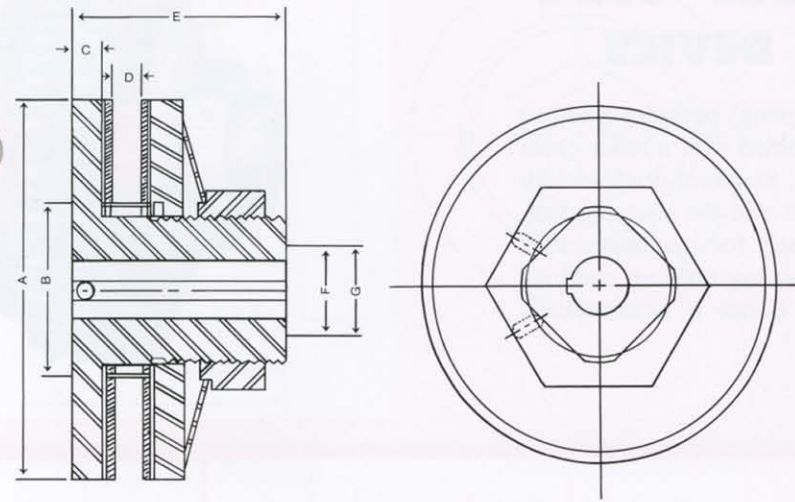
OVERLOAD SAFETY DEVICE

The Dalton "OSD" is a torque-limiter unit which prevents costly breakdowns when equipment is overloaded by disengaging when a set maximum load is reached. The unit is re-engaged immediately when the overload is eliminated. The "OSD" is easily adjusted with a torque-wrench to the specific torque required. It can be used with a sprocket, gear, belt-pulley, or flange.

The clutch facings used have been selected after research and testing to resist expansion due to moisture. The flanges are high carbon steel machined accurately for precise operation. The threaded hub and pressure plate are machined square and ground where necessary to position the plate and eliminate extra parts. The torque adjusting nut is hexagonal for easier installation and adjustment. Equipped with needle bearings to eliminate shaft scoring, seizing and wear. Use only specially ground sprockets see pages 10 & 11.



Patent No. 3,092,983



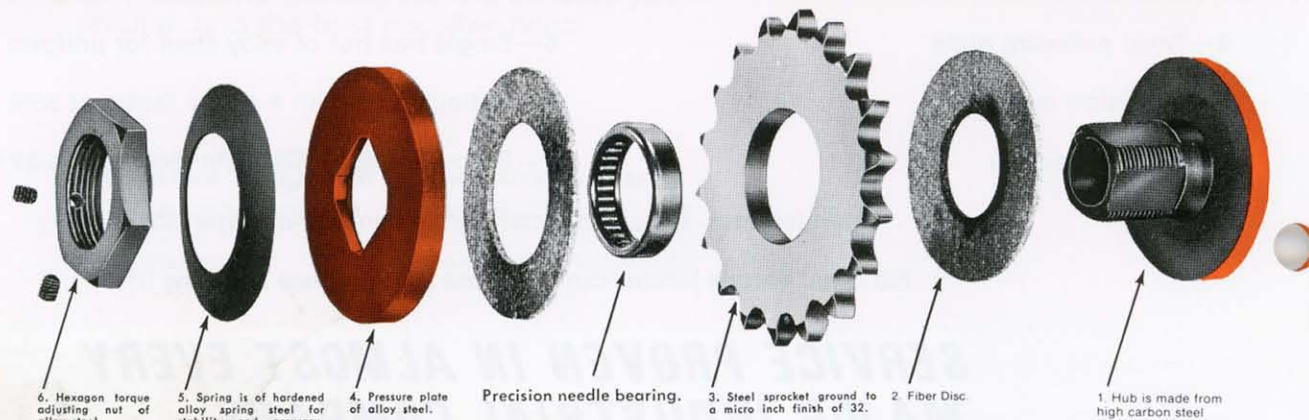
The Dalton "OSD", Overload Safety Device Unit, is equipped with a single torque adjusting nut for torque uniformity. Only one setting on the single nut applies equal pressure on the entire unit, whereas the use of multiple nuts would make it extremely difficult to equalize the pressure and would defeat the purpose of a positive release. A standard pipe wrench, which is readily available everywhere, may also be used to adjust this nut.

FIBERS ARE 1/8" THICK

Clutch No.	Weight		Maximum Torque Ft.-		No. of Springs	(A) Flange O.D.		(B) O.D. of Bearing and Sprocket Bore		(C) Thickness of Flange		(D) Minimum Width Between Fibers		(D ₁) Maximum Width for Sprocket or Pulley		(D ₂)**		(E) Over All Length		Torrington Bearing No.	(F) Minimum Bore		(G) Maximum Bore		Min. Plain Bore Price	Finished Bore with K.W. & S.S.		Price	Finished Bore with K.W. & S.S.		Price	For Bore Sizes Not Shown, Add Charge To This List ←	Clutch No.
	Lbs.	kg	Lbs.	mhp		In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm	In.	mm		In.	mm	In.	mm		In.	mm		In.	mm			
OSD-131	1/4	.11	6	1	1	1 5/16"	33	1 3/16"	20.6	1/4"	6	1/16"	1.5	1 1/32"	7	1/4"	6	1 3/8"	35	B-105	1/4"	6.4	3/8"	10	50.00	1/4"	52.00	5/16", 3/8"	58.00	16.00	OSD-131		
OSD-131D	1/4	.11	12	2	2	1 5/16"	33	1 3/16"	20.6	1/4"	6	1/16"	1.5	5/16"	8	1/4"	6	1 3/8"	35	B-105	1/4"	6.4	3/8"	10	60.00	1/4"	62.00	5/16", 3/8"	68.00	16.00	OSD-131D		
OSD-225	1	.45	35	5	1	2 1/4"	57	1 1/4"	31.7	3/8"	10	1/16"	1.5	1/2"	13	7/16"	11	2"	51	B-168	3/8"	9.6	3/4"	19	69.00	3/8", 1/2"	72.00	5/8", 3/4"	84.00	16.00	OSD-225		
OSD-225D	1	.45	50	7	2	2 1/4"	57	1 1/4"	31.7	3/8"	10	1/16"	1.5	5/32"	11.9	7/16"	11	2"	51	B-168	3/8"	9.6	3/4"	19	85.00	3/8", 1/2"	88.00	5/8", 3/4"	100.00	16.00	OSD-225D		
OSD-256	1 3/4	.79	50	7	1	2 9/16"	65	1 1/2"	38.1	3/8"	10	1/16"	1.5	7/16"	11	7/16"	11	2"	51	B-208	3/8"	9.6	7/8"	22	88.00	3/8", 1/2"	92.00	5/8", 3/4", 7/8"	106.00	16.00	OSD-256		
OSD-256D	1 3/4	.79	75	11	2	2 9/16"	65	1 1/2"	38.1	3/8"	10	1/16"	1.5	13/32"	10.3	7/16"	11	2"	51	B-208	3/8"	9.6	7/8"	22	106.00	3/8", 1/2"	110.00	5/8", 3/4", 7/8"	124.00	16.00	OSD-256D		
OSD-337	3 3/4	1.70	100	14	1	3 3/8"	86	1 7/8"	47.6	3/8"	10	1/8"	3	1/2"	13	7/16"	11	2 1/8"	54	B-248	1/2"	12.7	1"	25	107.50	1/2", 5/8"	112.00	3/4", 7/8", 1"	128.00	16.00	OSD-337		
OSD-337D	3 3/4	1.70	175	24	2	3 3/8"	86	1 7/8"	47.6	3/8"	10	1/8"	3	7/16"	11	7/16"	11	2 1/8"	54	B-248	1/2"	12.7	1"	25	127.50	1/2", 5/8"	132.00	3/4", 7/8", 1"	148.00	16.00	OSD-337D		
OSD-362	4	1.81	120	17	1	3 5/8"	92	2"	50.8	3/8"	10	1/8"	3	1/2"	13	7/16"	11	2 1/8"	54	B-268	1/2"	12.7	1 1/8"	28	128.00	1/2", 5/8", 3/4"	132.00	7/8", 1", 1 1/8"	148.00	20.00	OSD-362		
OSD-362D	4	1.81	185	26	2	3 5/8"	92	2"	50.8	3/8"	10	1/8"	3	7/16"	11	7/16"	11	2 1/8"	54	B-268	1/2"	12.7	1 1/8"	28	150.70	1/2", 5/8", 3/4"	156.00	7/8", 1", 1 1/8"	172.00	20.00	OSD-362D		
OSD-450	6	2.70	190	26	1	4 1/2"	114	2 1/4"	57.1	7/16"	11	3/16"	5	7/8"	22	7/16"	11	2 7/8"	73	B-308	3/4"	19.1	1 3/8"	35	146.00	3/4", 1", 1 1/8"	152.00	1 1/4", 1 3/8"	168.00	20.00	OSD-450		
OSD-450D	6	2.70	285	39	2	4 1/2"	114	2 1/4"	57.1	7/16"	11	3/16"	5	13/16"	20.6	7/16"	11	2 7/8"	73	B-308	3/4"	19.1	1 3/8"	35	174.00	3/4", 1", 1 1/8"	180.00	1 1/4", 1 3/8"	196.00	20.00	OSD-450D		
OSD-493	6 1/2	2.95	210	29	1	4 15/16"	125	2 5/8"	66.67	7/16"	11	5/16"	8	15/16"	23.8	1 1/16"	17.5	2 7/8"	73	B-3612	3/4"	19.1	1 5/8"	42	189.00	3/4", 1", 1 1/8"	196.00	1 1/4", 1 3/8", 1 1/2", 1 5/8"	214.00	22.00	OSD-493		
OSD-493D	6 1/2	2.95	360	50	2	4 15/16"	125	2 5/8"	66.67	7/16"	11	5/16"	8	7/8"	22	1 1/16"	17.5	2 7/8"	73	B-3612	3/4"	19.1	1 5/8"	42	218.00	3/4", 1", 1 1/8"	225.00	1 1/4", 1 3/8", 1 1/2", 1 5/8"	243.00	22.00	OSD-493D		
OSD-600	10	4.50	320	44	1	6"	152	2 7/8"	73.0	1/2"	13	5/16"	8	13/16"	20.6	1 1/16"	17.5	3"	76	NB-4012	1"	25.4	1 3/4"	44	232.00	1", 1 1/4"	240.00	1 3/8", 1 1/2", 1 5/8"	260.00	22.00	OSD-600		
OSD-600D	10	4.50	440	61	2	6"	152	2 7/8"	73.0	1/2"	13	5/16"	8	3/4"	19	1 1/16"	17.5	3"	76	NB-4012	1"	25.4	1 3/4"	44	262.00	1", 1 1/4"	270.00	1 3/8", 1 1/2", 1 5/8"	290.00	22.00	OSD-600D		
OSD-750	21	8.20	550	76	1	7 1/2"	191	4"	101.6	1/2"	13	3/8"	10	13/16"	30	1 7/16"	17.5	3 3/4"	95	B-5612	1"	25.4	2 1/2"	64	346.00	1", 1 1/2"	360.00	1 3/4", 1 15/16", 2"	384.00	26.00	OSD-750		
OSD-750D	21	8.20	775	107	2	7 1/2"	191	4"	101.6	1/2"	13	3/8"	10	1 1/8"	28.5	1 1/16"	17.5	3 3/4"	95	B-5612	1"	25.4	2 1/2"	64	378.00	1", 1 1/2"	392.00	1 3/4", 1 15/16", 2"	416.00	26.00	OSD-750D		
OSD-900	39	12.70	1000	139	1	9"	229	5"	127.0	5/8"	16	1/2"	13	1 3/8"	35	1 5/16"	23.8	4 1/4"	108	BRONZE BUSHING	1 1/4"	31.8	3 1/2"	90	876.00	1 1/4", 1 3/4"	912.00	2", 2 1/4", 2 3/4"	960.00	52.00	OSD-900		
OSD-900D	39	12.70	1250	173	2	9"	229	5"	127.0	5/8"	16	1/2"	13	1 5/16"	33	1 5/16"	23.8	4 1/4"	108	BRONZE BUSHING	1 1/4"	31.8	3 1/2"	90	940.00	1 1/4", 1 3/4"	976.00	2", 2 1/4", 2 3/4"	1024.00	52.00	OSD-900D		

*For maximum bore on OSD225, 225D, a shallow keyway is used of 1/2 standard depth. Use the next larger size "OSD" unit when a standard keyway is desired.

**IMPORTANT. Be sure to specify when sprocket or driving member width is in excess of D₂ dimension. Special fibers to suit will be furnished.



6. Hexagon torque adjusting nut of alloy steel. 5. Spring is of hardened alloy spring steel for stability and accuracy. 4. Pressure plate of alloy steel. Precision needle bearing. 3. Steel sprocket ground to a micro inch finish of 32. 2. Fiber Disc. 1. Hub is made from high carbon steel.

IMPORTANT NOTES:

The chart shown above is for stock sizes. The "OSD" overload safety device can be made to suit your application. Send us your blueprints or specifications for recommendations by our engineering department. Dalton Overload Safety Devices can be plated with cadmium, chrome and zinc. Sprockets can be furnished in ferrous materials.

See pages 10 & 11 for sprocket sizes bore tolerances and minimum tooth sprockets.

PARTS LIST FOR "OSD"

	OSD-131	OSD-225	OSD-256	OSD-337	OSD-362	OSD-450	OSD-493	OSD-600	OSD-750	OSD-900
HUB	21.50	40.00	48.00	59.00	65.00	76.00	94.40	117.00	202.00	620.00
FIBRE (EA)	6.50	8.00	10.40	13.00	14.00	16.00	19.50	23.50	40.00	80.00
PRESSURE PLATE	12.00	16.00	21.00	26.50	28.50	32.00	46.50	64.00	74.00	186.00
SPRING	16.00	21.50	23.00	26.50	31.00	37.00	37.50	40.00	42.50	84.80
NUT	9.20	10.60	14.50	19.00	20.00	21.50	30.00	40.00	63.50	132.50
BEARING	5.30	8.00	10.00	12.70	18.50	24.70	31.00	38.00	60.55	96.00