### **E-Series, Manual Torque Multipliers**

ENERPAC 🛭

▼ Shown from left to right: E291, E393, E494



- · High-efficiency planetary gear sets achieve high output torque from low input torque
- Operator protected by anti-backlash device
- Torque multiplier accuracy ± 5%
- Reversible, tighten or loosen bolts
- Reaction bar or reaction plate style
- . Angle-of-turn protractor standard on E300-Series models
- · Reaction plate models offer increased versatility with reaction point locations
- E300 and E400-Series have replaceable shear drives, providing overload protection of internal power train
- . One replacement shear drive is included with each E300 and E400-Series models.



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Enerpac Reaction Bar Torque Multiplier E393 used to manually torque bolts up to 4300 Nm.

## **Accurate, Efficient Torque Multiplication**

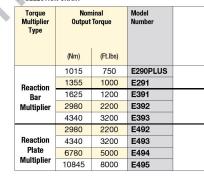
When accurate make-up or break-out of stubborn fasteners requires high torque



#### Typical Torque Multiplier Applications

- Locomotives
- · Power plants
- · Pulp and paper mills
- Refineries
- · Chemical plants
- · Mining and construction
- · Off-road equipment
- Shipyards
- · Cranes.

### SELECTION CHART



# **Manual Torque Multipliers**

#### Manual Torque Multipliers

Enerpac manual torque multipliers provide efficient torque multiplication in wide clearance applications and when external power sources are not available

Manual torque multipliers are used in most industrial, construction, and equipment maintenance applications, Hydraulic torque wrenches are better suited for tight tolerance, flange and repetitious bolting applications.

■ Selector Pawl

Models with anti-backlash

protection have directional

for clockwise or counter-

clockwise rotation.

Provides overload protection on

power train by shearing when

the rated capacity of the tool

is exceeded. Internal shear pin

prevents tool from falling off bolt.

E300- and E400-series multiplier's

**Shearable Square Drive** 

selector pawls. Set the pawl

#### **Use Reaction Bar Models:**

- · Where space is limited.
- · Where multiple reaction points are available.
- · when portability is desirable.

### Use Reaction Plate Models:

- · Above 4300 Nm output torque,
- . On flanges and applications where neighbouring bolt or nut is available to react against

▲ Angle-of-Turn Protractor

E391, E392 and E393 model

include an angle-of-turn protractor

(scale) to tighten fasteners using

a "torque turn" method. Allows

accurate measuring a specific

number of degrees of rotation.

 When extreme reaction forces are generated.

S2





Nominal Output Torque:

1015 - 10.845 Nm

Torque Ratio:

3:1 - 52:1

Output Ratio Accuracy:

±5%



#### CAUTION!

Never use impact air tools for power driving torque multipliers. Torque multiplier drive train damage will occur.



#### **Torque Wrenches**

Enerpac offers a complete range of hydraulic, pneumatic and electric torque wrenches

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#### **BSH-Series Sockets**

Heavy-Duty Impact Sockets for power driven torqueing equipment.

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Reaction Bar Type "					Reaction Plate Type "											
	Input Torque <sup>2)</sup>		Torque Ratio	Input Female	Output Male Square Drive		Over- load	Anti- Backlash		Dimensions (mm)					Ī	Model Number
	(Nm)	(Ft.lbs)	1777	Square Drive S1 (inch)	S2 (inch)	Replaceable Shear Drive Model Nr.	protection		D	Н	L	L1	L2	R	(kg)	
	338	250	3:1	1/2	3/4	-	No	No	71	84	218	-	-	-	1,8	E290PLUS
	451	333	3:1	1/2	3/4	-	No	No	71	84	442	-	-	-	2,5	E291
	271	200	6:1	1/2	3/4	E391SDK	Yes	No	100	102	498	-	-	-	6,3	E391
	219	162	13,6:1	1/2	1	E392SDK	Yes	Yes	103	146	498	-	-	-	6,9	E392
	234	173	18,5 : 1	1/2	1	E393SDK	Yes	Yes	103	165	498	-	-	-	8,3	E393
	219	162	13,6:1	1/2	1	E392SDK	Yes	Yes	124	140	356	140	124	32	7,8	E492
	234	173	18,5 : 1	1/2	1	E393SDK	Yes	Yes	124	163	356	140	124	32	10,6	E493
	256	189	26,5:1	1/2	11/2	E494SDK	Yes	Yes	143	222	378	178	89	42	15,4	E494
	208	154	52:1	1/2	11/2	E495SDK	Yes	Yes	148	273	386	178	89	48	22,8	E495

1) E200 and E400-series do not have an Angle-of-Turn Protractor (scale).

2) User must verify manual torque wrench accuracy prior to use to ensure accurate final output torque.

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