

---

**Mechanical Pullers**

---

**Bearing Separators**

---

**Hydraulic Pullers**

---

**Split Collet Extractors**

---

**Automotive Pullers**

---

**Spare Parts & Kit Contents**

---

# PULLING & EXTRACTING



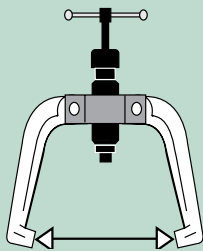


# PULLING & EXTRACTING

## Toledo Pullers

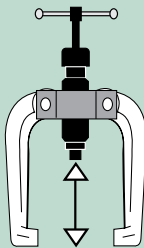
- A comprehensive range including Mechanical, Hydraulic, Automotive, Specialty, Slide Hammer and Split Collet style pullers
- Made from heat treated drop forged chrome vanadium steel for strength and reliability

### PULLER SELECTION



#### 1. Choose the spread

The width of the component to be pulled.



#### 2. Choose the reach

The depth of the component to be pulled.



#### 3. Choose the force

Extra force will be required for difficult to remove, rusted on components. Choose a hydraulic puller for extra force.

### PULLER RANGE



#### Mechanical Pullers

Incorporate the use of a threaded forcing screw. Available in a variety of assemblies including standard two and three leg pullers as well as blind housing and bearing separator styles.



#### Hydraulic Pullers

Incorporate the reliable Toledo 10 or 22 tonne hydraulic rams for applications which require greater force. Available in assorted assemblies similar to the mechanical options. Hydraulic options provide extra force without extra effort.



#### Twin Pull/Blind Housing Bearing

Required when bearings have restricted access.



#### Separators

Required for extra support when there is limited space for puller legs.



#### Slide Hammers

A mechanical option giving a short sudden impact for bearing removal.

#### Split Collet Extractors

The split collet is pushed into the bearing centre. Use the hex nut on the collet end to expand.





## MECHANICAL PULLERS

- Toledo mechanical pullers encompass a range of specific sizes to enable correct fit for the application and ensure easy removal of bearings, pulleys, gears and sprockets
- All pullers are manufactured from drop forged chrome vanadium alloy steel to increase rigidity and reduce long-term wear
- Designed for easy removal of bearings, pulleys, gears and sprockets
- All Toledo mechanical pullers are double ended and available in either 2 or 3 Leg
- Suitable for internal and external applications

### Twin Leg Pullers Mechanical



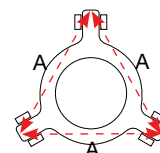
External & Internal Pulling


Part No.			Spare Parts					
			Forcing Screw		Leg		Twin Head	
			Part No.	Size	Part No.	Size	Part No.	Size
<b>222030</b>	75mm	60mm	222031	125mm	222032	100mm	222033	73mm
<b>222040</b>	100mm	70mm	222041	160mm	222042	138mm	222043	86mm
<b>222060</b>	150mm	120mm	222061	240mm	222062	225mm	222063	118mm
<b>222080</b>	200mm	175mm	222081	320mm	222082	300mm	222083	160mm
<b>222100</b>	250mm	190mm	222101	330mm	222102	340mm	222103	210mm
<b>222120</b>	300mm	215mm	222121	380mm	222122	380mm	222123	250mm

### Triple Leg Pullers Mechanical



External & Internal Pulling



Part No.			Spare Parts					
			Forcing Screw		Leg		Triple Head	
			Part No.	Size	Part No.	Size	Part No.	Size (A)
<b>223030</b>	75mm	60mm	222031	125mm	222032	100mm	223033	65mm
<b>223040</b>	100mm	70mm	222041	160mm	222042	138mm	223043	75mm
<b>223060</b>	150mm	120mm	222061	240mm	222062	225mm	223063	105mm
<b>223080</b>	200mm	175mm	222081	320mm	222082	300mm	223083	150mm
<b>223100</b>	250mm	190mm	222101	330mm	222102	340mm	223103	190mm
<b>223120</b>	300mm	215mm	222121	380mm	222122	380mm	223123	210mm



# PULLING & EXTRACTING

## Sliding Beam Pullers Mechanical

- Twin leg sliding beam pullers
- Legs slide across the beam to produce varying spread sizes to suit various applications
- Legs are reversible to suit both internal and external applications
- Comprehensive range of spare parts available

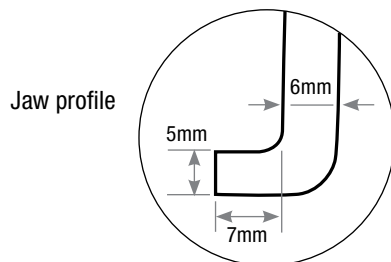


External & Internal Pulling

Part No.	Spread	Reach	Spare Parts					
			Forcing Screw		Leg		Twin Head	
			Part No.	Size	Part No.	Size	Part No.	Size
<b>232080</b>	80mm	90mm	232081	180mm	232082	100mm	232083	140mm
<b>232120</b>	120mm	90mm	232121	180mm	232082	100mm	232123	170mm
<b>232160</b>	160mm	140mm	232161	260mm	232162	160mm	232163	220mm
<b>232200</b>	200mm	140mm	232201	265mm	232162	160mm	232203	260mm

## Sliding Beam Puller Kits Mechanical

- Twin and triple leg option sliding beam puller kits
- Legs slide across the beam to produce varying spread sizes to suit various applications
- Reversible legs suitable for internal and external applications
- Thin jaw design, particularly useful in applications with limited space



**221008**

External & Internal Pulling

Part No.	Description	Spread	Reach
<b>221008</b>	Standard kit	35–110mm	210mm
<b>221007</b>	Master kit	35–110mm	Up to 260mm

Spare Parts			Kit Contents	
Part No.	Description	Size	<b>221008</b>	<b>221007</b>
221009	Forcing screw	160mm	1	1
221012	Leg	100mm	–	3
221013	Leg	210mm	3	3
221014	Leg	260mm	–	3
221010	Twin beam	175mm	1	1
221011	Triple beam	150mm	1	1





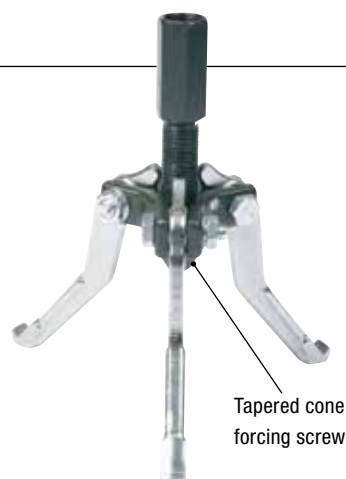
**221007**



## Internal Bearing Puller Mechanical

- Tapered cone forcing screw supports legs when manoeuvring tool into position
- Extended 19mm hex forcing screw with 5/8" UNF threaded centre for use with slide hammer Part No. 245351 (not included, available separately)

Part No.			Spare Parts	
			Legs (set of 3)	
			Part No.	Overall Length
<b>246400</b>	30–80mm	60mm	246402	120mm

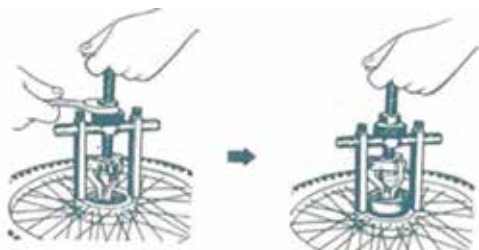


Internal Pulling

**245464**

## Pilot Bearing Puller (3 Jaw) Mechanical

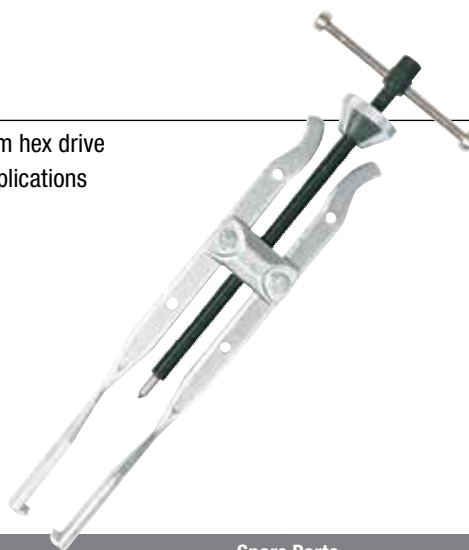
- Compact internal pilot bearing puller designed to extract flywheel, pump, generator, spigot transmission and alternator pilot bearings and bushes without tilting the bearings or damaging the bearings race
- Small and handy unit easily fits in most tool kits
- Applications include cars, trucks, motorcycles, bicycles and tractors
- Internal diameter range: 13–38mm





Internal Pulling

## Long Jaw Bearing Puller Mechanical

- Forcing screw features a convenient T-bar handle with 13mm hex drive
- Reversible legs designed for internal and external pulling applications where extended reach is required
- Spare parts available



External & Internal Pulling

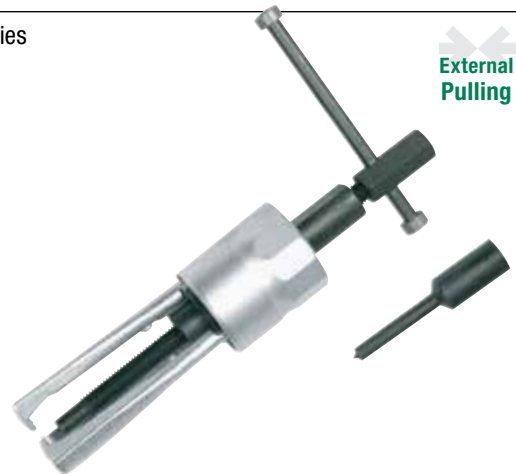
Part No.			Spare Parts			
			Forcing Screw		Legs (set of 2)	
			Part No.	Size	Part No.	Size
<b>245460</b>	300mm	10–50mm	245461	260mm	245462	300mm



# PULLING & EXTRACTING

## Micro Adjustable Bearing Puller Mechanical

- Designed for the rapid easy removal of small bearings and similar assemblies
- Self centre under load and can be used with the attached "T" bar or 13mm hexagon drive
- Three legs with independent leaf springs
- Securing collar tightens under load for positive, non-slip pulling action
- 1 tonne capacity
- Applications include alternators/generators, domestic appliances, power tools and pumps



External Pulling

Part No.	Description	Spread	Reach
246600	Micro puller	19–45mm	73mm

Spare Parts			Kit Contents
Part No.	Description	Overall length	Qty
246601	Forcing screw	160mm	1
246602	Legs (each)	105mm	3
246603	Body	–	1
246604	Nose extension	–	1

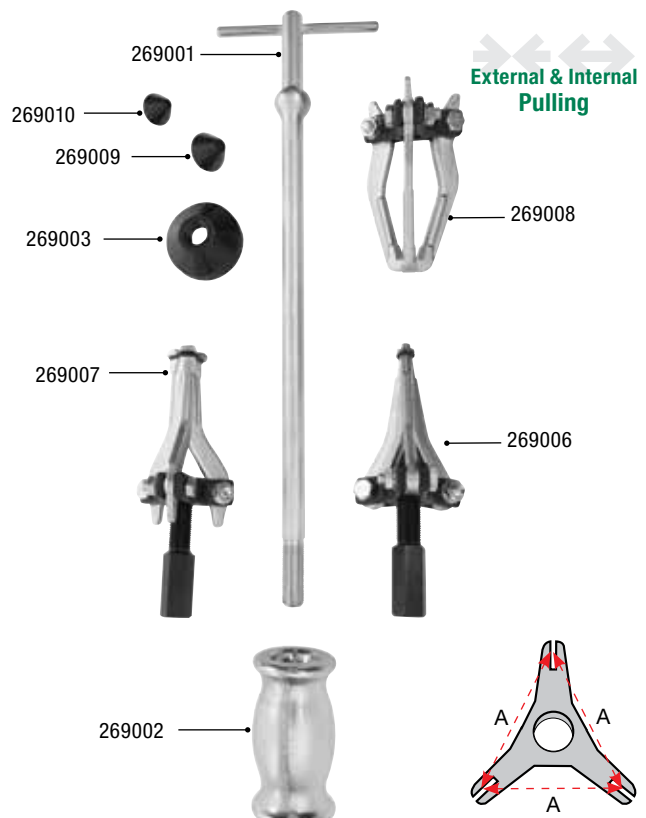
Covers all of the following ISO bearing references provided that sufficient clearance is available around the bearing

6800	6201	6002	6003	606	627	668	609
6900	6301	6202	6200	626	637	628	629
6801	6802	6803	6300	636	688	638	639
6901	6902	6302		697	698	689	
6001		6903		607		699	

269000

## Slide Hammer Gear/Bearing Puller Kit Mechanical

- Includes two 100mm internal triple leg pullers and one 100mm external triple leg puller
- Features tapered cone adaptors to support legs when adjusting pullers in position for easy operation
- Slide hammer capacity 1.1kg



External & Internal Pulling

Spare Parts			Kit Contents
Part No.	Description	Size	Qty
269001	T bar 5/8" UNF	420mm	1
269002	Hammer head (1.1kg)	100mm	1
269004	Centre screw	90mm	2
269006	Internal puller assembly	15–30mm spread	1
269007	Internal puller assembly	30–80mm spread	1
269008	External puller assembly	15–80mm spread	1
269011	Triple head	A = 60mm	3
269003	Internal / External Cone	–	1
269010	External cone adaptor (small)	–	1
269009	External cone adaptor (large)	–	1
269012	Bolts, leg nuts, triple head	–	9
269005	Lock washers	–	9

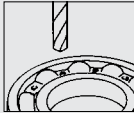




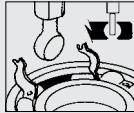
## Twin Pull Mechanical Pullers

- Special pullers for the removal of blind housing bearings without the need to dismantle machinery or remove the running shaft
- Positive seating allows even tension on inner and outer bearing rings, reducing resistance
- Stabilisers reduce sideways movement and self centre the puller
- Three kits cover a wide range of ISO bearings. To identify kit for bearings without an ISO reference refer to puller spread and adaptor diameter
- Extensive range of spare parts available for all sets

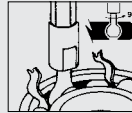
**Step 1**  
Drill bearing  
cage



**Step 2**  
Insert specific  
adaptor and  
rotate 90°



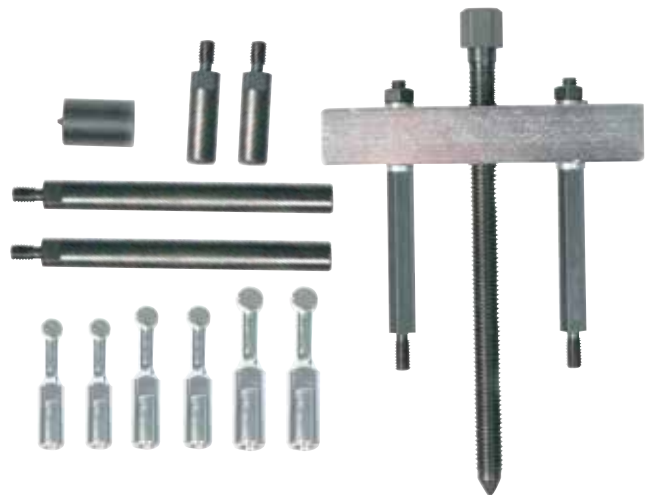
**Step 3**  
Apply pressure  
via the forcing  
screw to remove  
bearing



### Twin Pull Puller Kit (Small) Mechanical

Part No.	Spread	Reach	Adaptor	ISO Bearing Designation
<b>225000</b>	20–95mm	125mm	5–8mm	6004 - 6010 6299 - 6205 6300 - 6302

Spare Parts			Kit Contents
Part No.	Description	Size	Qty
225011	Forcing screw (each)	125mm	1
225013	Main rod (each)	100mm	2
225014	Extension rod (each)	90mm	2
225010	Thrust nut (each)	–	–
225016	Beam (each)	100mm	1
225001	Adaptor - small (each)	5mm diameter	2
225002	Adaptor - medium (each)	6mm diameter	1
225003	Adaptor - large (each)	8mm diameter	2



### Twin Pull Puller Kit (Medium) Mechanical

Part No.	Spread	Reach	Adaptor	ISO Bearing Designation
<b>226000</b>	45–120mm	200mm	9–12.5mm	6207 - 6211 6305 - 6308 6403 - 6405

Spare Parts			Kit Contents
Part No.	Description	Size	Qty
226011	Forcing screw (each)	200mm	1
226013	Main rod (each)	160mm	2
226016	Beam (each)	140mm	1
226001	Adaptor - small (each)	9mm diameter	2
226002	Adaptor - medium (each)	11mm diameter	2
226003	Adaptor - large (each)	12.5mm diameter	2





# PULLING & EXTRACTING

## Twin Pull Puller Kit (Large) Mechanical

Part No.	Spread	Reach	Adaptor	ISO Bearing Designation
<b>227000</b>	60–200mm	500mm	16–32mm	6021 - 6032 6309 - 6321 6212 - 6230 6406 - 6417

Spare Parts			Kit Contents
Part No.	Description	Size	Qty
227011	Forcing screw (each)	270mm	1
227013	Main rod (each)	250mm	2
227014	Extension rod (each)	250mm	2
227016	Beam (each)	240mm	1
227001	Adaptor (each)	16mm diameter	2
227002	Adaptor (each)	19mm diameter	2
227003	Adaptor (each)	22mm diameter	2
227004	Adaptor (each)	25mm diameter	2
227005	Adaptor (each)	28mm diameter	2
227006	Adaptor (each)	32mm diameter	2



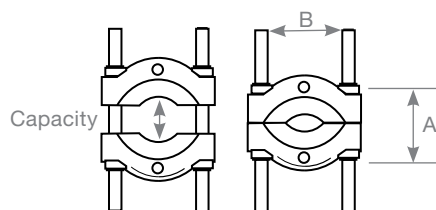
## BEARING SEPARATORS

### Bearing Separators

- Designed for removing gears and bearings where access is available behind the item
- Two knife edges ensure a secure pulling surface
- Drop forged hardened alloy steel, used in conjunction with two leg mechanical pullers, hydraulic pullers or sliding beam applications



Part No.	Capacity (Min. Max.)	Thread	(A)	(B)
<b>245040</b>	20–40mm	3/8"	35mm	50mm
<b>245050</b>	30–50mm	3/8"	50mm	60mm
<b>245075</b>	50–75mm	3/8"	80mm	90mm
<b>245105</b>	75–105mm	1/2"	90mm	110mm
<b>245150</b>	105–150mm	5/8"	120mm	150mm







## Bearing Separator Mechanical Pullers

- Designed with specific ranges of adjustment for easy access behind bearings to allow for direct contact on the inner bearing surface
- Suitable for applications where standard legs cannot gain access
- Manufactured from drop forged chrome vanadium alloy steel to ensure strength and rigidity to maximise service life

**222000**

### Bearing Separator Puller Kit Mechanical

- Includes 75–105mm capacity bearing separator
- Suitable for large bearing sizes
- Compatible with Toledo Ram Part No. 265100 for hydraulic operation

Spare Parts			Kit Contents
Part No.	Description	Size	Qty
265021	Forcing screw + convertor (one of each)	290mm	1
265009	Beam (each)	200mm	1
265010	Main rod 1/2" (each)	200mm	2
265011	Extension rod 1/2" (each)	225mm	2
245105	Separator (each)	75–105mm	1

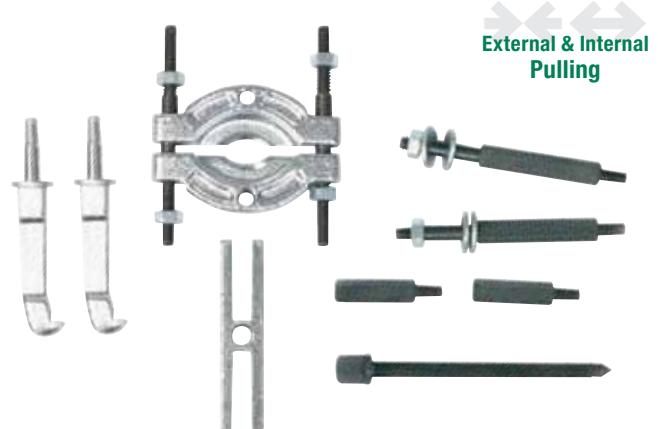


**224000**

### Bearing Puller Kit Mechanical

- Multi-purpose kit includes 20–40mm capacity bearing separator and twin leg puller for internal and external applications
- Suitable for small bearing sizes

Spare Parts			Kit Contents
Part No.	Description	Size	Qty
224001	Forcing screw (each)	75mm	1
225006	Beam (each)	60mm	1
224002	Leg (each)	50mm	2
224003	Main rod 1/4" (each)	45mm	2
224004	Extension rod 1/4" (each)	25mm	2
245040	Separator	20–40mm	1



### Single Point Pressure Beam Puller Kit Mechanical

- Single point of adjustment allows for quick change of the separator plate and alignment of the puller
- Pressure beam provides a superior grip to the application and extra stability
- Suitable for extra tough pulling jobs where additional strength and stability is required
- Supplied with two sized legs for variable pulling range

Part No.	Spread	Reach
<b>222001</b>	60–100mm	100–170mm



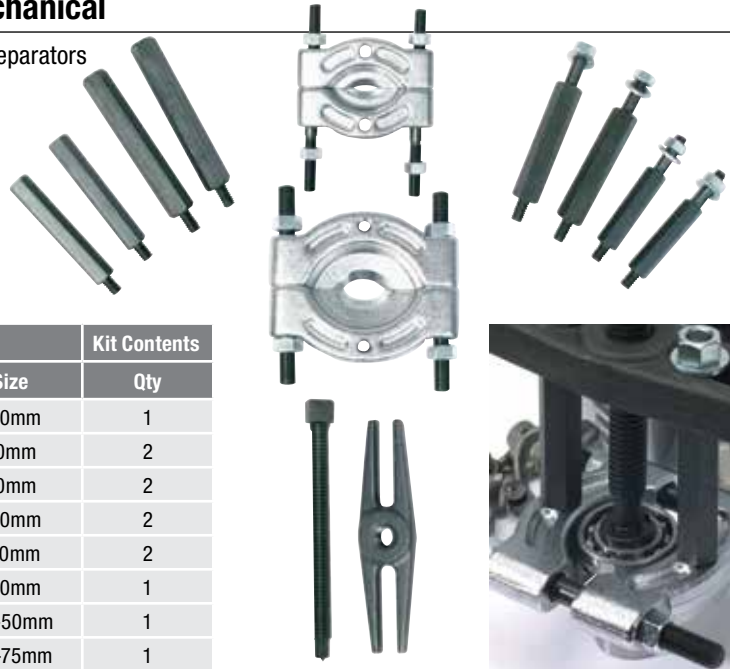


# PULLING & EXTRACTING

**221000**

## Bearing Separator Puller Kit Mechanical

- Includes 30–50mm and 50–75mm capacity bearing separators
- Suitable for small to medium bearing sizes



Spare Parts			Kit Contents
Part No.	Description	Size	Qty
221001	Forcing screw (each)	150mm	1
221003	Main rod small 3/8" 14mm hex (each)	60mm	2
221004	Extension rod small 3/8" 14mm hex (each)	90mm	2
221005	Main rod large 3/8" 17mm hex (each)	100mm	2
221006	Extension rod large 3/8" 17mm hex (each)	110mm	2
221002	Beam (each)	150mm	1
245050	Separator (each)	30–50mm	1
245075	Separator (each)	50–75mm	1



## HYDRAULIC PULLERS

- The Toledo 10 tonne and 22 tonne rams provide maximum force with minimal effort
- Large 22 tonne ram (Part No. 265023) for extra heavy duty applications where additional force is required
- Ram repair kits are available. These ram repair kits are simple to use and provide a quick solution to restoring the ram to working order. The ram repair kits consist of seals and oil (components that require replacement)

## Bearing Separator Puller Kit Hydraulic

- Hydraulic bearing puller set designed to gain access behind bearings, gears etc.
- Ideal solution for general maintenance work
- Includes 75–105mm capacity bearing separator, suitable for large bearing sizes

**External & Rear Access Pulling**

Part No.	Spread	Reach	Separator Capacity
<b>267000</b>	180mm	425mm	75-105mm



Spare Parts			Kit Contents
Part No.	Description	Size	Qty
265100	Hydraulic ram, 10T (1 1/2")	–	1
265009	Beam	200mm	1
265010	Main rod (1 1/2")	200mm	2
265011	Extension rod (1 1/2")	225mm	2
245105	Separator	75–105mm	1
265008	Nose piece set (3 piece)	–	1 set
265001	Ram repair kit (not included)	–	–



## Bearing Separator Puller Kit Hydraulic

- Hydraulic bearing puller set designed to gain access behind bearings, gears etc.
- Ideal solution for general maintenance work
- Includes 105–150mm capacity bearing separator, suitable for large bearing sizes

External &  
Rear Access  
Pulling

Part No.	Spread	Reach	Separator Capacity
<b>266000</b>	230mm	425mm	105-150mm

Spare Parts			Kit Contents
Part No.	Description	Size	Qty
265100	Hydraulic ram, 10T (1 1/2")	—	1
266009	Beam	250mm	1
266004	Main rod (5/8")	200mm	2
266003	Extension rod (5/8")	225mm	2
245150	Separator	105–150mm	1
265008	Nose piece set (3 piece)	—	1 set
265001	Ram repair kit (not included)	—	—



## Combination Puller Kits Hydraulic

- Twin and triple leg combination puller kits offer the versatility of either a two or three leg puller assembly
- 10 tonne hydraulic ram
- Refer to pages 362-364 for kit contents and spare parts

External & Internal  
Pulling

Part No.	Spread	Reach
<b>265040</b>	50–100mm	100mm
<b>265060</b>	75–150mm	150mm
<b>265080</b>	100–200mm	200mm

Spare Parts			Kit Contents		
Part No.	Description	Size	<b>265040</b>	<b>265060</b>	<b>265080</b>
265100	Hydraulic ram, 10T (1 1/2")		1	1	1
265002	Twin head	135mm	1	1	1
265003	Triple head	A = 120mm	1	1	1
265004	Grooved centre nut		1	1	1
265041	Leg (each)	100mm	3	—	—
265061	Leg (each)	150mm	—	3	—
265081	Leg (each)	200mm	—	—	3
265008	Nose pieces set (3 piece)		1 set	1 set	1 set
265001	Ram repair kit (not included)		—	—	—





# PULLING & EXTRACTING

## Puller & Bearing Separator Combination Kit Hydraulic

- Hydraulic bearing puller combination kit provides a complete pulling and separating solution
- Features hydraulic ram, bearing separator, twin and triple head beam configuration, three leg sizes (100, 150 & 200mm)
- Universal master kit ideal for most agricultural, automotive, industrial, marine and mining applications
- Manufactured from drop forged high quality steel, heat treated for strength and durability
- Supplied in a blow mould storage case

External &  
Rear Access  
Pulling

Part No.	Spread	Reach	Separator Capacity
<b>265000</b>	180mm	425mm	75–105mm



Spare Parts			Kit Contents
Part No.	Description	Size	Qty
265100	Hydraulic ram, 10T (1 ½)	–	1
265002	Twin head	135mm	1
265003	Triple head	A = 135mm	1
265004	Grooved centre nut	–	1
265009	Beam	200mm	1
265010	Main rod (1/2")	200mm	2
265011	Extension rod (1/2")	225mm	2
265041	Leg	100mm	3
265061	Leg	150mm	3
265081	Leg	200mm	3
245105	Separator	75–105mm	1
265008	Nose pieces set (3 piece)	–	1 set
265001	Ram repair kit (not included)	–	–

## Heavy Duty Puller Kit 22 Tonne, Hydraulic

- Triple leg puller kit suitable for internal and external applications
- 22 Tonne hydraulic ram for extra heavy duty applications where a large force is required
- Complete kit includes bearing separator, main rods, extension rods and beam
- Ram repair kit available Part No. 265026

External & Internal  
Pulling

Part No.	Spread	Reach
<b>265022</b>	570mm	300mm



Spare Parts			Kit Contents
Part No.	Description	Size	Qty
265023	Hydraulic ram 20T	–	1
265024	Triple head	300mm	1
265025	Leg assembly	500mm	3
265027	Nose piece extension	45mm	1
265028	Nose piece extension	100mm	1
265029	Nose piece extension	150mm	1
265026	20T hydraulic ram repair kit (not included)	–	–





## Puller & Bearing Separator Master Kit Mechanical & Hydraulic

- Master puller and bearing separator kit featuring a comprehensive range of components to make up both mechanical and hydraulic puller assemblies
- Contains forcing screw and converter to provide quick and easy conversion from hydraulic operation to mechanical
- Complete with components to construct varying two and three leg puller assemblies as well as a rear access bearing separator set up

**External &  
Rear Access  
Pulling**

Part No.	Spread	Reach	Separator Capacity
<b>265030</b>	180mm	425mm	75–150mm

Spare Parts			Kit Contents
Part No.	Description	Size	Qty
265100	Hydraulic ram (1 ½")	–	1
265002	Twin head	135mm	1
265003	Triple head	A = 120mm	1
265009	Beam	200mm	1
266009	Beam	250mm	1
265010	Main rod (1/2")	200mm	2
266004	Main rod (5/8")	200mm	2
265011	Extension rod (1/2")	225mm	2
266003	Extension rod (5/8")	225mm	2
265041	Leg	100mm	3
265061	Leg	150mm	3
265081	Leg	200mm	3
245105	Separator	75–105mm	1
245150	Separator	105–150mm	1
265008	Nose pieces set (3 piece)	–	1 set
265004	Grooved centre nut	–	1
265021	Forcing screw & converter	–	1





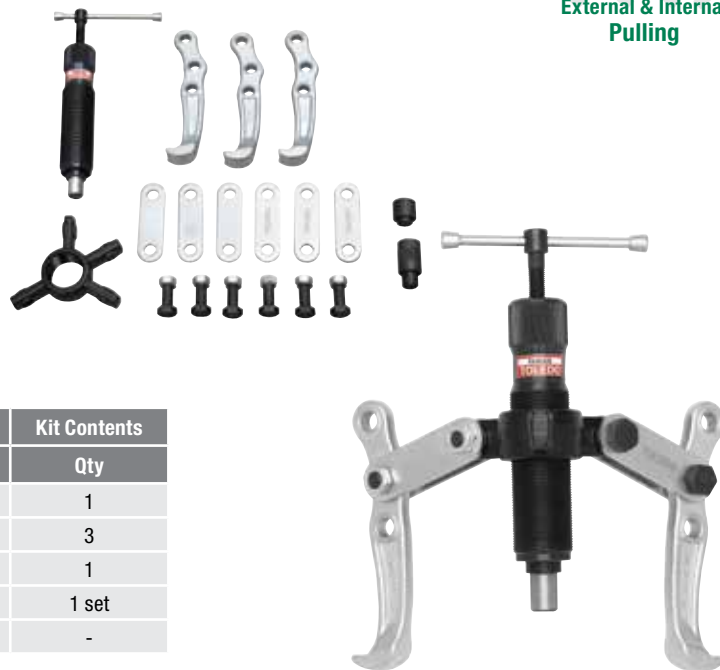
# PULLING & EXTRACTING

## Reversible Leg Combination Puller Kit Hydraulic

- Combination two and three leg puller kit suitable for internal and external applications
- Reversible legs with variable bolt holes for maximum versatility with improved length and reach adjustment
- Dual “two in one” twin and triple head

External & Internal  
Pulling

Part No.	Spread	Reach
<b>268000</b>	50–100mm	100mm



Spare Parts			Kit Contents
Part No.	Description	Size	Qty
265100	Hydraulic ram, 10T (1 ½")	–	1
268002	Leg assembly (each)	170mm	3
268003	Combination 2/3 way head	130mm	1
265008	Nose pieces set (2 piece)	25mm, 35mm	1 set
265001	Ram repair kit (not included)	–	-

## SPLIT COLLET EXTRACTORS

- Specifically designed to remove bearings where access exists in the centre of the bearing
- Expanding the split collet tightens the grip on the underside of the bearing during removal
- Ideal for the removal of pilot, bearings, pinions, oil seals etc.
- Toledo split collet extractor kits come with varying collet sizes to enable correct fitment for a wide range of pulling applications

**246300**

## Split Collet Extractor Set

- Comprehensive split collet extractor set featuring eight variable capacity split collets
- 9 piece set

Spare Parts			Kit Contents
Part No.	Description	Size	Qty
246320	Slide hammer assembly (1/2" BSW)	390mm	1
246301	Split collet	8–10mm	1
246302	Split collet	10–12mm	1
246303	Split collet	12–14mm	1
246304	Split collet	15–17mm	1
246305	Split collet	17–20mm	1
246306	Split collet	20–24mm	1
246307	Split collet	25–29mm	1
246308	Split collet	30–32mm	1







**250000**

## Split Collet Extractor Set

- Combination kit includes puller with centre screw in addition to slide hammer assembly and split collets

Spare Parts			Kit Contents
Part No.	Description	Size	
250001	Puller assembly	140mm (forcing screw)	1
250002	Slide hammer assembly	285mm	1
250003	Split collet	8–11mm	1
250004	Split collet	12–17mm	1
250005	Split collet	18–23mm	1
250006	Split collet	24–29mm	1
250007	Split collet	30–34mm	1
250008	Screw extractor	M10 x 1.5	1
250009	Screw extractor	M10 x 1.5 M8 x 1.25	1
250010	Screw extractor	M10 x 1.5 M6 x 1.0	1



## AUTOMOTIVE PULLERS

### Harmonic Balancer & Pulley Pullers

- Manufactured to enable the removal of automotive harmonic balancers, pulleys and gears where access to tapped holes is available
- Varying styles to suit 2 and 3 hole configurations
- Comprehensive 14, 18 or 46 piece sets

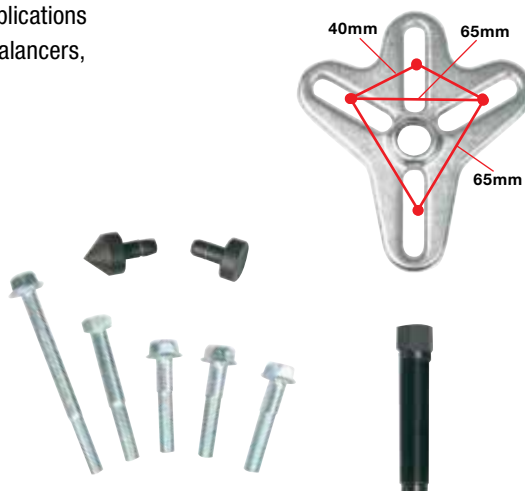
**245240**

## Harmonic Balancer Puller Set

- Multi-purpose puller includes flat and pointed tips for multiple applications
- Suitable for two and three hole applications including harmonic balancers, pulleys, vibration dampers and gears with tapped holes
- 14 piece set

### Contents

Description	Size	Qty
Flange	–	1
Forcing screw	Overall length: 95mm	1
Flat tip	–	1
Pointed tip	–	1
Bolt	3/8" UNC x 100mm	2
Bolt	5/16" UNC x 50mm	3
Bolt	3/8" UNF x 50mm	3
Bolt	M10 x 1.5 x 75mm	2





# PULLING & EXTRACTING

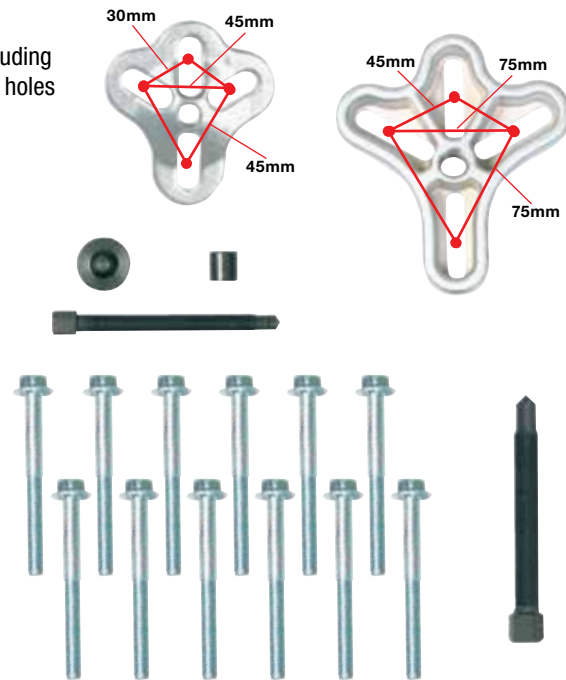
245270

## Harmonic Balancer & Fly Wheel Puller Set

- Includes two specialty pullers in one set
- Contains one flange type puller for two and three hole applications including harmonic balancers, pulleys, vibration dampers and gears with tapped holes
- Also includes steering wheel and fly wheel puller
- 18 piece set

### Contents

Description	Size	Qty
Small flange	—	1
Large flange	—	1
Forcing screw	—	2
Flat tip	—	1
Pointed tip	—	1
Bolt	5/16" UNF x 87mm	3
Bolt	3/8" UNF x 51mm	3
Bolt	M8 x 1.25 x 80mm	3
Bolt	M10 x 1.50 x 88mm	3



254230

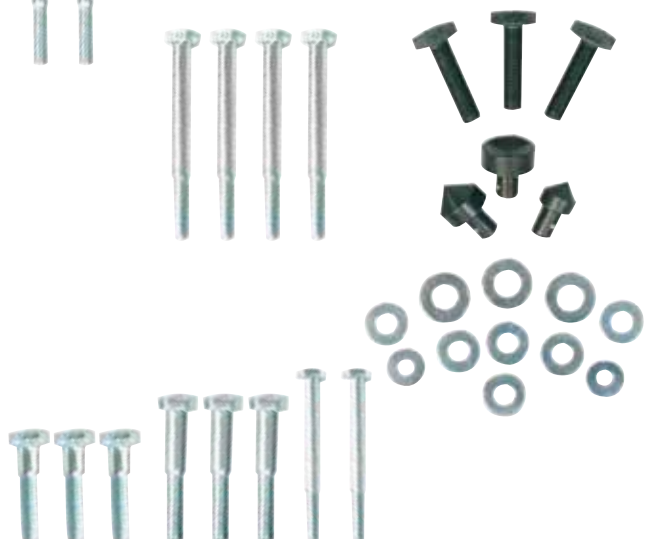
## Harmonic Balancer Master Puller Set

- Comprehensive multi-purpose puller set designed for the removal of harmonic balancers, timing gears and pulleys where access to 2 or 3 tapped holes is available
- 46 piece set



### Contents

Description	Size	Qty	Description	Size	Qty
Yoke	—	1	Bolt	3/8" x 24 (38mm long)	3
Forcing Screw	125mm	1	Bolt	3/8" x 16 (50mm long)	3
Flat Tip	—	1	Bolt	3/8" x 16 (75mm long)	3
Pointed Tip	Small	1	Bolt	3/8" x 16 (108mm long)	2
Pointed Tip	Large	1	Bolt	5/16" x 12 (150mm long)	2
Washer	5/16" ID	3	Bolt	5/16" x 18 (90mm long)	3
Washer	1/4" ID	2	Bolt	5/16" x 24 (75mm long)	2
Washer	10mm ID	3	Bolt	1/4" x 28 (65mm long)	2
Washer	8mm ID	3	Bolt	M10 x 1.25 (35mm long)	3
			Bolt	M8 x 1.25 (45mm long)	3
			Bolt	M8 x 1.25 (65mm long)	2
			Bolt	M8 x 1.5 (90mm long)	2



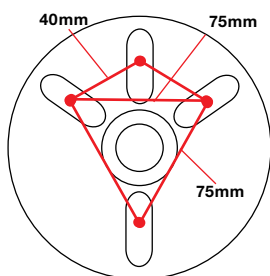


**245400**

## Harmonic Balancer Puller & Installer Set

- For easy removal of most harmonic balancers and drive pulleys which are press-fitted onto the crankshaft
- Unique disc design intended for trouble free removal of harmonic balancers
- Range of metric and imperial sized bolts and adaptors provide a wide coverage
- Heavy duty  $\frac{3}{4}$ " diameter forcing screw is internally threaded to fit adaptors
- Supplied with eight adaptors which maintain a common thread on one end to fit into the forcing screw
- Includes three each of the following bolts M8 x 1.25, M10 x 1.00, M10 x 1.25 (length: 65mm each)

Spare Parts			Kit Contents
Part No.	Description	Size	Qty
245430	Forcing screw	150mm	1
245431	Body puller	—	1
245432	Adaptor	7/16" UNF	1
245433	Adaptor	M12 x 1.5	1
245434	Adaptor	1/2" UNF	1
245435	Adaptor	M14 x 1.5	1
245436	Adaptor	9/16" UNF	1
245437	Adaptor	5/8" UNF	1
245438	Adaptor	M16 x 2.0	1
245439	Adaptor	3/4" UNF	1
245429	Centre rings (4 piece set)	—	1 set
—	Bolt	65mm	1



**245260**

## Steering Wheel Puller

- Specifically designed for Ford and GM, this puller incorporates rotating legs to allow easy locating and removal of steering wheels without threaded holes
- Forcing screw with 17mm hex drive





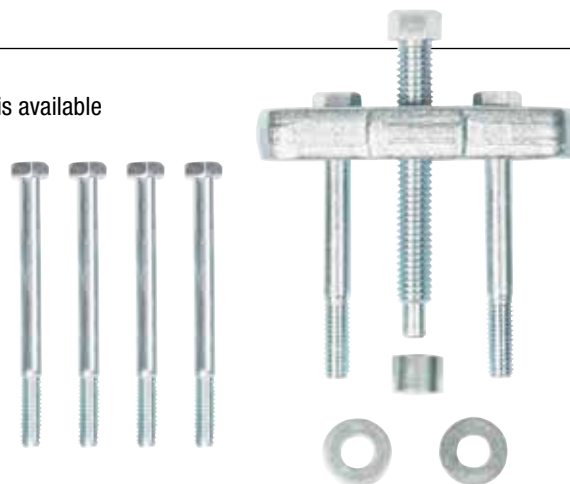
# PULLING & EXTRACTING

**250250**

## Steering Wheel Puller Heavy Duty

- Drop forged beam for increased rigidity and service life
- Suits 5/16" and 3/8" applications where access to threaded holes is available
- Spread: 40–80mm
- Reach: 65mm

Kit Contents		
Description	Size	Qty
Beam	—	1
Forcing screw	—	1
Flat tip	—	1
Bolts	5/16" UNF	2
Bolts	5/16" UNC	2
Bolts	3/8" UNC	2



**245390**

## Steering Wheel Puller & Lock Plate Remover

- Universally designed puller is intended for removal of steering wheels on most vehicles including both telescopic and non-telescopic steering columns
- Used to compress steering wheel lock plate to allow for removal or installation of the circlip
- Also includes steering pivot pin remover for Saginaw steering columns
- Contains four sets of bolts needed for various thread requirements
- Spread: 40-70mm
- Reach: 70mm

Kit Contents		
Description	Size	Qty
Steering wheel puller	—	1
Steering wheel lock plate compressor	—	1
Steering pivot pin remover	—	1
Bolts	5/16" UNF x 90mm	2
Bolts	5/16" UNC x 100mm	2
Bolts	M8 x 1.25 x 80mm	3
Bolts	M8 x 1.25 x 90mm	2
Bolts	3/8" UNC x 90mm	2
Bolts	M10 x 1.5 x 88mm	3



**245370**

## Power Steering & Alternator Pulley Remover

- Reversible two sided flange enables removal of common alternator and power steering pump pulleys where access to a grooved hub is available
- Suitable for use on pulleys with grooved hub diameters of 1 1/8" (28mm), 1 1/4" (32mm), 1 5/16" (34mm) and 1 3/8" (35mm)
- Applications include GM, Chrysler and Ford as well as Saginaw, Thompson and Ford C-2 power steering pumps

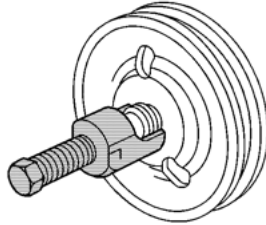




**245360**

## Power Steering Pump Pulley Remover

- Removing pressed one and two groove power steering and alternator pulleys
- Jaws lock on pump flange to provide a positive pull
- Adjustment via the side thumb screws can be made to lock jaws into place
- Drop forged, adjustable two position jaws
- Spread: 28–46mm
- Reach: 180mm



**245380**

## Power Steering Pump Pulley Kit

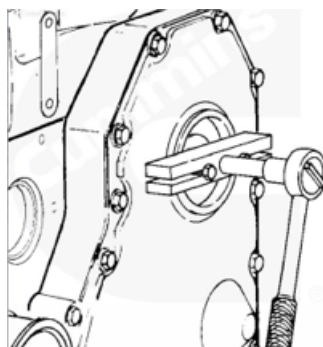
- For quick and easy removal and installation of steering pump pulleys
- Designed specifically to suit 28–35mm pulley hub diameters
- Includes pulley remover, pulley installer and quick disconnect coupler tool
- Reliable kit provides on going service without damaging pump or pulley
- Applications include Ford Falcon FG, Ford C111, Saginaw, Thompson, C2 power steering pumps



**245420**

## Timing Gear Puller

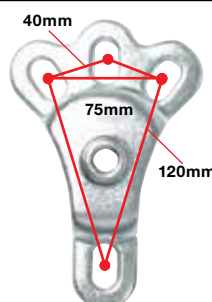
- Versatile puller for removal of timing gears and pulleys with tapped holes
- 120mm beam with 10mm slot opening
- Spread: 100mm
- Reach: 100mm



**245340**

## Rear Axle Puller

- Pulls flange-type rear axles on most late model passenger cars and light trucks
- Designed to fit axles with bolts or studs up to  $\frac{9}{16}$ " OD in 4, 5 or 6 stud patterns from  $4\frac{1}{4}$ " to  $5\frac{9}{16}$ "
- Yoke and bolt are threaded  $\frac{5}{8}$ " UNF
- Optional slide hammer not included – Part No. 245351





# PULLING & EXTRACTING

## Hub Puller Kits Heavy Duty

- Universal adjustable mechanical and hydraulic hub pullers for various stud patterns up to five studs
- Free movement legs (5) on a raised yoke assembly allows quick and easy attachment to vehicle hubs
- Heavy duty striking handle allows the application of shock force for rapid removal of stubborn hubs
- Suitable for passenger cars and commercial vehicles
- Manufactured from drop forged high quality steel, heat treated for strength and durability
- Reach: 190mm

Spare Parts		Kit Contents	
Part No.	Description	252000 Mechanical	270000 Mechanical & Hydraulic
252001	Mechanical screw	1	1
265100	Hydraulic ram, 10T (1 1/2")	—	1
252002	Striking handle	1	1
252004	Leg (hole diameter 17mm)	5	5
252003	Body plate	1	1
265008	Nose piece extension (3 piece set)	—	1 set



**252000 Mechanical Kit**



**270000 Mechanical & Hydraulic Kit**

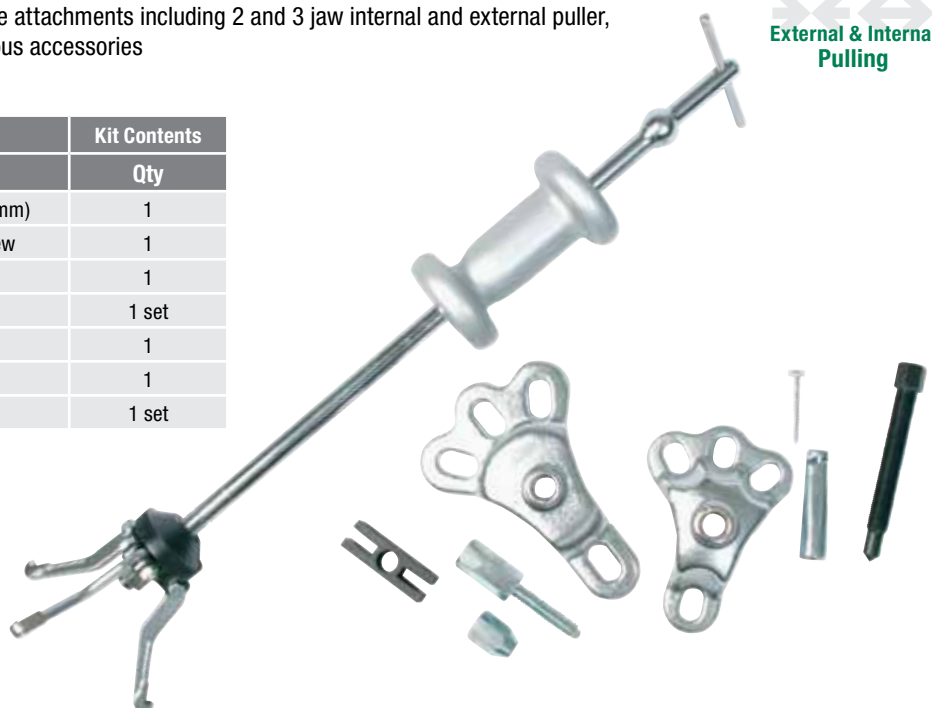


**245300**

## Slide Hammer Puller Set Front & Rear Hub

- Multi-purpose design for removal of front and rear hubs, bearing oil seal bushes and flange type axles
- Includes slide hammer with multiple attachments including 2 and 3 jaw internal and external puller, front and rear hub pullers and various accessories

Spare Parts		Kit Contents
Part No.	Description	Qty
245351	Slide hammer assembly (600mm)	1
245330	Front hub puller & forcing screw	1
245340	Rear hub puller	1
245302	Leg assembly (3 piece set)	1 set
245304	Triple head	1
245306	Twin head	1
245308	Cone and accessories	1 set



External & Internal Pulling

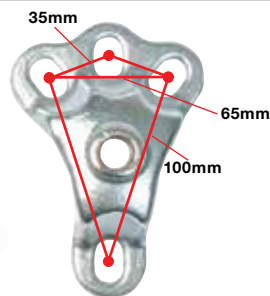




**245330**

## Front Hub Puller

- Designed to remove front wheel hubs on late model cars and light trucks with independent front suspension
- Simplifies brake and bearing maintenance work
- Yoke and bolt are threaded 5/8" UNF
- Optional slide hammer not included – Part No. 245351



**269013**

## Slide Hammer Hub Puller Combination Heavy Duty

- Suitable for both mechanical and hydraulic performance
- 10 slot design has universal applications and is suitable for various stud patterns
- Pulls flange-type rear axles on most late model passenger cars and light trucks
- T-type hex head for either hand or torque wrench use
- Suitable for 4 and 5 stud axles
- 10 Tonne hydraulic ram (Part No. 265100)
- 2.8kg slide hammer
- Plate size: Diameter 148.5mm, Height 90mm



**304042**

## Slide Hammer Diesel Injector Puller Kit Heavy Duty

- A heavy duty puller kit suitable for the removal of the most stubborn and stuck diesel injectors
- Includes universal joint to permit greater access to restricted areas
- Suitable for use on Bosch and Delphi diesel injectors
- Includes metric adaptors M14 x 1.5, M16 x 1.0, M17 x 1.0, M20 x 1.0, M25 x 1.0, M27 x 1.0



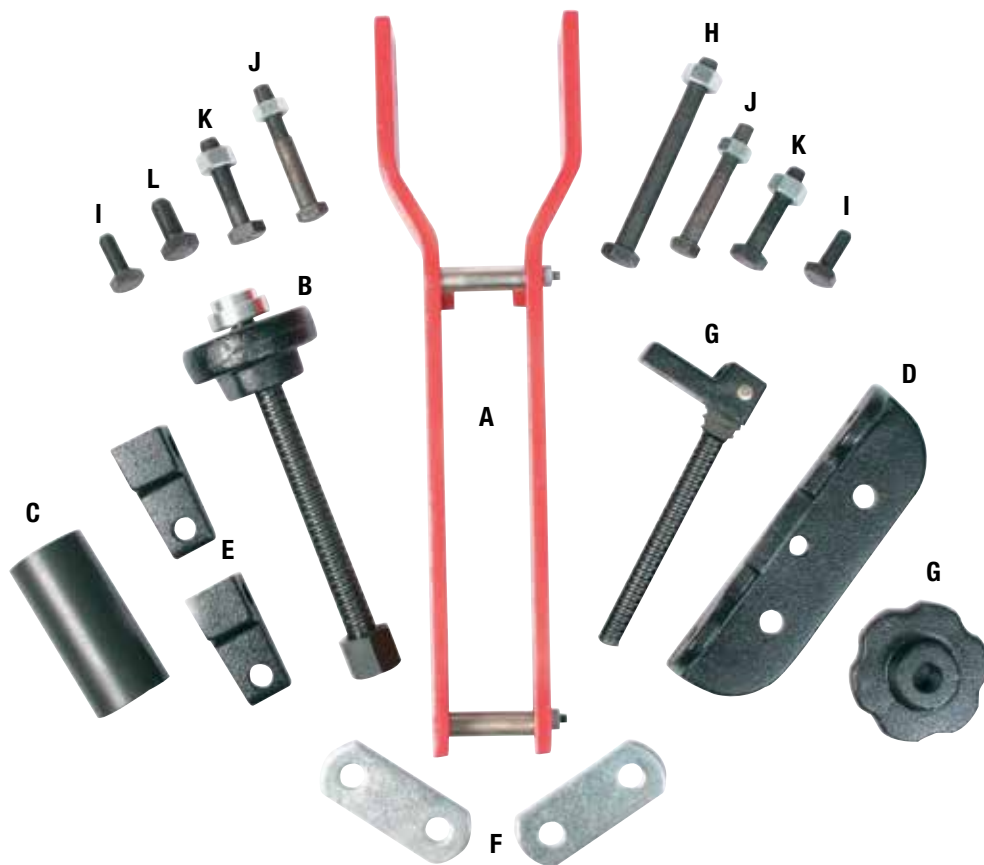


# PULLING & EXTRACTING

245440

## Hub Separator Set Universal

- Universal hub separator set is designed for removing hubs on popular front wheel drive vehicles
- Durable Acme threaded forcing and adjusting screws ensure long product life
- Applications include: Daihatsu, Fiat, Ford, GM, Honda, Hyundai, Mazda, Mitsubishi, Nissan, Renault, Saab, Subaru, Suzuki, Toyota, Volkswagen
- Some spares available upon request as special order



### Contents

Part No.	Description	QTY
A	Body assembly	1
B	Forcing screw assembly	1
C	Adaptor tube	1
D	Adaptor plate	1
E	Saab adaptors	2
F	Honda adaptor plates	2
G	Adjusting screw & nut	1
H	Bolt & nut M12 x 110mm	1
I	Bolt M10 x 25mm	2
J	Bolt & nut 7/16" x 2 1/2"	2
K	Bolt & nut M12 x 50mm	2
L	Bolt M12 x 25mm	1

### Instructions

#### Step 1

To dismantle the hub assembly remove hub from the vehicle and apply a liberal coating of penetrating oil to contact points of hub and allow to soak

#### Step 2

Lubricate forcing screw and adjusting nut with grease and select components required for hub style

#### Step 3

Assemble components on hub and place hub and tool in vice

#### Step 4

Using 26mm socket and bar tighten the forcing screw by turning clockwise until hub separates

#### Step 5

Should hub not separate repeat Step 1 and reapply pressure to forcing screw

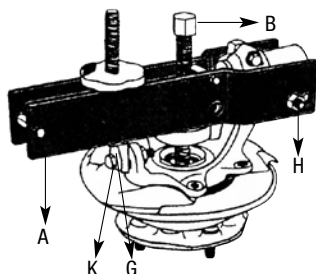


## Hub Separator Set Applications

### Components Required

#### Honda, Early without struts

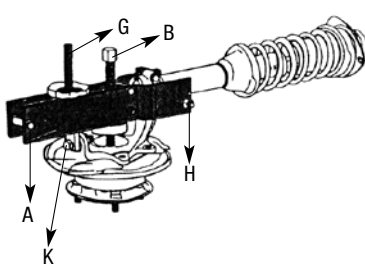
- A Body Assembly
- B Forcing Screw Assembly
- H Bolt M12 x 110
- K Bolt M12 x 50
- G Adjusting Screw & Nut



### Components Required

#### GM, Honda

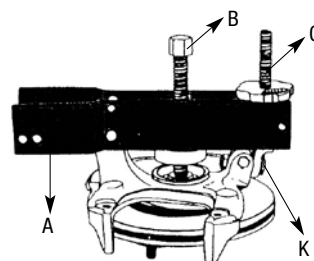
- A Body Assembly
- B Forcing Screw Assembly
- H Bolt M12 x 110
- K Bolt M12 x 50
- G Adjusting Screw & Nut



### Components Required

#### GM, VW, Fiat, Ford, Mazda

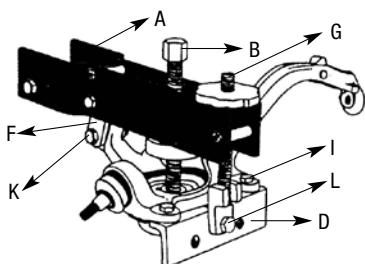
- A Body Assembly
- B Forcing Screw Assembly
- G Adjusting Screw & Nut
- K Bolt M12 x 50



### Components Required

#### Honda-Accord

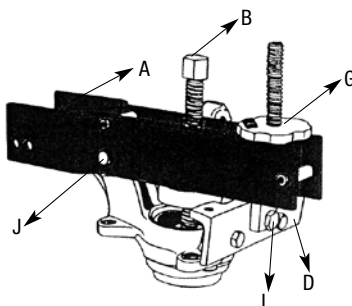
- A Body Assembly
- B Forcing Screw Assembly
- G Adjusting Screw & Nut
- D Adaptor Plate
- K Bolt M12 x 50
- F Honda Adaptor Plate
- J Bolt & Nut 7/16" x 2 1/2"
- I Bolt M10 x 25
- L Bolt M12 x 25



### Components Required

#### GM, Toyota

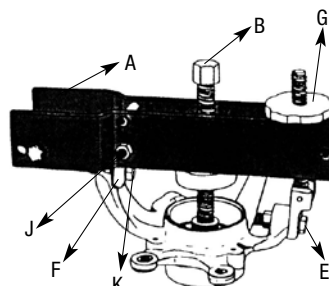
- A Body Assembly
- B Forcing Screw Assembly
- G Adjusting Screw & Nut
- D Adaptor Plate
- L Bolt M12 x 25
- J Bolt & Nut 7/16" x 2 1/2"



### Components Required

#### Saab, Renault

- A Body Assembly
- B Forcing Screw Assembly
- G Adjusting Screw & Nut
- D Adaptor Plate
- J Bolt & Nut 7/16" x 2 1/2"
- K Bolt M12 x 50
- E Saab Adaptor





# PULLING & EXTRACTING

## Pulling & Extracting Tips

- Damage to pullers is mainly due to misalignment, heat or incorrect pullers being used for the application
- Heat should not be applied to the bearing as the heat is transferred up the nose piece causing possible damage to seals and ram leakage. If the ram leaks, the maximum forcing pressure is unable to be obtained
- Hydraulic rams should be tightened by hand and not by placing a pipe on the T-bar for additional leverage as the T-bar will bend. Place hand force by winding the t-bar as tight as possible, leave for 5 minutes, return and re-tighten
- Always unwind the T-bar after use to release pressure from the ram
- Where possible, use the nose piece extensions to allow minimal travel and winding of the T-bar
- For even load distribution, always use 3 leg or bearing separator over 2 leg where space permits
- Incorrect alignment will cause twisting and threads to snap off in the bearing separator
- For safe removal of bearings ensure safety eyewear protection is used



Correct Alignment



Misalignment



265001

## Toledo Hydraulic Ram Repair Kit

### Installation Instructions

#### Step 1

Unwind T-bar (1) by turning anticlockwise and remove.

#### Step 2

Unscrew threaded nose retainer (2), remove from ram body and drain oil.

#### Step 3

Using 1/4" rod insert from T-bar end and remove ram internal components.

#### Step 4

Clean internal ram cylinder bore.

#### Step 5

Turn ram upside down. Fill metal T-bar seating positioner cup (7) 1/2 full with general purpose grease and insert from nose end.

#### Step 6

Insert small tapered seal (6) (large taper) facing nose end.

#### Step 7

Fill internal small chamber totally with oil (supplied) and cover large chamber by 2mm of oil.

#### Step 8

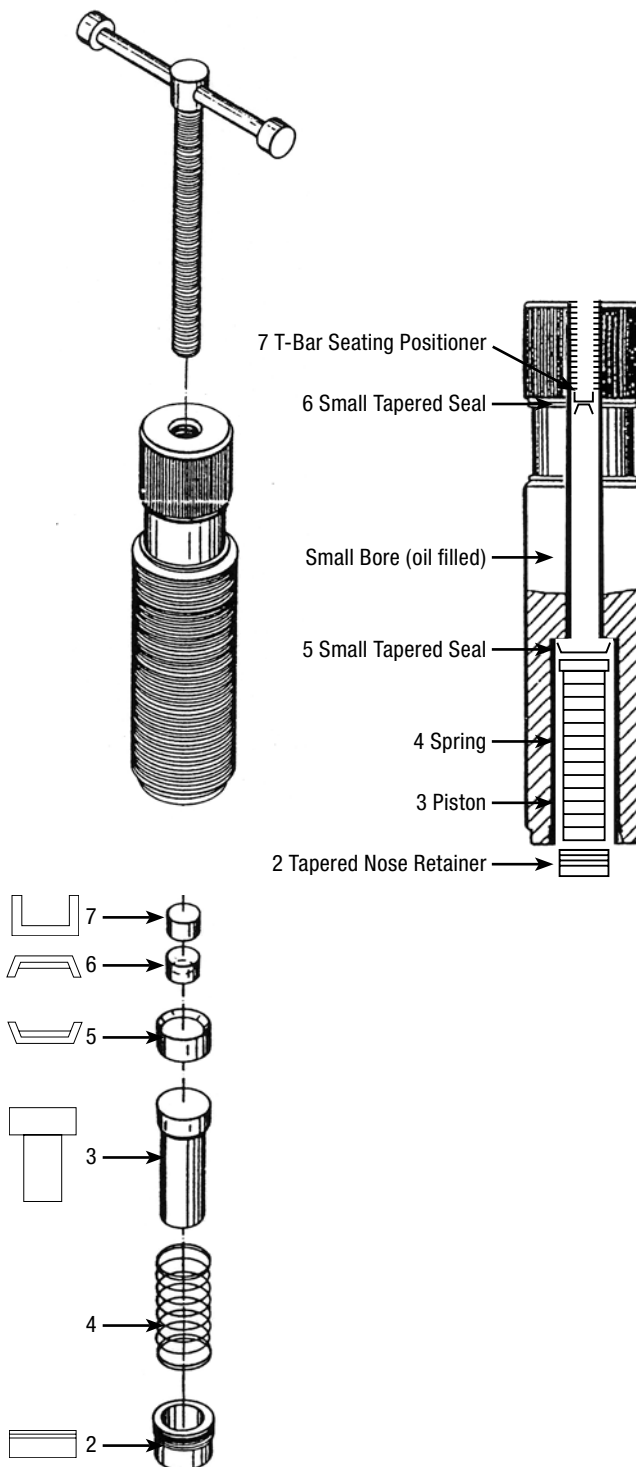
Insert large seal (5) into chamber. Note taper is reverse to small seal (large taper facing t-bar).

#### Step 9

Insert piston and spring (3,4) and screw up threaded nose retainer (2).

#### Step 10

Screw T-bar (1) into ram body.





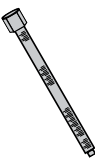
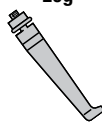

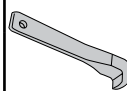
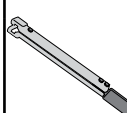
#### Legend

- 1 T-Bar
- 2 Threaded Nose Retainer
- 3 Piston
- 4 Spring
- 5 Large Tapered Seal
- 6 Small Tapered Seal
- 7 T-Bar Seating Positioner Cup
- 8 Ram Body



# PULLING & EXTRACTING









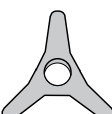

## SPARE PARTS & KIT CONTENTS REFERENCE GUIDE

Spare Parts			Mechanical Kit Contents																										
Description	Size	Part No.	221000	221007	221008	222000	222030	222040	222060	222080	222100	222120	223030	223040	223060	223080	223100	223120	224000	225000	226000	227000	232080	232120	232160	232200	245460	246400	269000
<div>Adaptor</div> 	5mm	225001																		2									
	6mm	225002																		2									
	8mm	225003																		2									
	9mm	226001																			2								
	11mm	226002																			2								
	12.5mm	226003																			2								
	16mm	227001																				2							
	19mm	227002																				2							
	22mm	227003																				2							
	25mm	227004																				2							
	28mm	227005																				2							
32mm	227006																				2								
<div>Extension Rod</div> 	25mm	224004																	2										
	90mm	221004	2																										
	90mm	225014																		2									
	110mm	221006	2																										
	225mm	265011				2																							
	250mm	227014																				2							
<div>Forcing screw</div> 	125mm	222031					1						1																
	125mm	225011																		1									
	150mm	221001	1																										
	160mm	222041						1						1															
	160mm	221009		1	1																								
	180mm	232081																					1						
	180mm	232121																						1					
	200mm	226011																			1								
	240mm	222061							1						1														
	260mm	232161																							1				
	260mm	245461																									1		
	265mm	232201																								1			
	270mm	227011																				1							
	290mm	265021				1																							
	320mm	222081								1						1													
	330mm	222101									1						1												
	380mm	222121										1						1											
75mm	224001																	1											
<div>Leg</div> 	50mm	224002																		2									
<div>Leg Assembly</div> 	100mm	222032					2						3																
	138mm	222042						2						3															
	225mm	222062							2						3														
	300mm	222082								2						3													
	340mm	222102									2						3												
	380mm	222122										2						3											
<div>Leg Assembly</div> 	100mm	232082																					2	2					
	160mm	232162																								2	2		
<div>Leg Assembly</div> 	100mm	221012		3																									
	210mm	221013		3	3																								
	260mm	221014		3																									








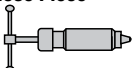







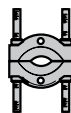





## MECHANICAL PULLERS Spare Parts & Kit Contents

Spare Parts			Mechanical Kit Contents																										
Description	Size	Part No.	221000	221007	221008	222000	222030	222040	222060	222080	222100	222120	223030	223040	223060	223080	223100	223120	224000	225000	226000	227000	232080	232120	232160	232200	245460	246400	269000
<div>Legs (Set of 2)</div> 	300mm	245462																									1		
<div>Legs (Set of 3)</div> 	120mm	246402																										1	
<div>Main Rod</div> 	45mm	224003																	2										
	60mm	221003	2																										
	100mm	225013																	2										
	100mm	221005	2																										
	160mm	226013																		2									
	200mm	265010				2																							
	250mm	227013																			2								
<div>Separator</div> 	20 – 40mm	245040																	1										
	30 – 50mm	245050	1																										
	50 – 75mm	245075	1																										
	75 – 105mm	245105				1																							
<div>Sliding Twin Beam, External</div> 	140mm	232083																					1						
	170mm	232123																						1					
	175mm	221010		1	1																								
	220mm	232163																							1				
	260mm	232203																								1			
<div>Sliding Twin Beam, Internal</div> 	60mm	225006																	1										
	100mm	225016																		1									
	140mm	226016																			1								
	150mm	221002	1																										
	200mm	265009				1																							
	240mm	227016																				1							
<div>Thrust Nut</div> 	-	225010																		1									
<div>Triple Beam</div> 	150mm	221011		1	1																								
<div>Triple Head</div> 	60mm	269011																											3
	65mm	223033											1																
	75mm	223043												1															
	105mm	223063													1														
	150mm	223083														1													
	190mm	223103															1												
	210mm	223123																1											
<div>Twin Head</div> 	73mm	222033				1																							
	86mm	222043						1																					
	118mm	222063							1																				
	160mm	222083								1																			
	210mm	222103									1																		
	250mm	222123										1																	



# PULLING & EXTRACTING

## HYDRAULIC PULLERS Spare Parts & Kit Contents

Spare Parts			Hydraulic Kit Contents									
Description & Image	Size	Part No.	265000	265022	265030	265040	265060	265080	266000	267000	268000	269013
<b>Centre Nut, Threaded</b> (To suit Twin & Triple Head) 	60mm	265004	1		1	1	1	1				
<b>Extension Rod</b> 	225mm (1/2")	265011	2		2					2		
	225mm (5/8")	266003			2				2			
<b>Forcing Screw &amp; Converter</b> 	290mm	265021			1							
<b>Hydraulic Ram &amp; Nose Piece</b> 	10T	265100	1		1	1	1	1	1	1	1	1
	22T	265023		1								
<b>Leg</b> 	100mm	265041	3		3	3						
	150mm	265061	3		3		3					
	200mm	265081	3		3			3				
	500mm	265025		3								
<b>Leg Assembly</b> 	170mm	268002									3	
<b>Main Rod</b> 	200mm (1/2")	265010	2		2					2		
	200mm (5/8")	266004			2				2			
<b>Nose Extension Set (3 piece)</b> 	25, 35, 85 (mm)	265008	1		1	1	1	1	1	1	1	1
<b>Nose Extension Piece</b> 	45mm	265027		1								
<b>Nose Extension Piece</b> 	100mm	265028		1								
<b>Nose Extension Piece</b> 	150mm	265029		1								
<b>Separator</b> 	75 – 105mm	245105	1		1					1		
	105 – 150mm	245150			1				1			
<b>Triple Head</b> 	135mm	265003	1		1	1	1	1				
<b>Triple Head</b> 	300mm	265024		1								
<b>Twin Beam</b> 	200mm	265009	1		1					1		
	250mm	266009			1				1			
<b>Twin Head</b> 	135mm	265002	1		1	1	1	1				
<b>Twin/Triple Combination Head</b> 	130mm	268003									1	