

General Service Sets 1/2" Drive

Inches, 6-Point



317MSPC

317MSPC Chrome Set in a Storage Tray

17 pieces include:

6-Point Shallow Sockets:

TW121A	3/8"	TW221	1 1/16"	TW321	1"
TW141A	7/16"	TW241	3/4"	TW341	1 1/16"
TW161A	1/2"	TW261	13/16"	TW361	1 1/8"
TW181A	9/16"	TW281	7/8"		
TW201	5/8"	TW301	15/16"		

also includes:

S80	Sealed Ratchet
SN18B	18" Breaker Bar
SXK5	5" Extension
SXK11	11" Extension

Inches, 6 / 12-Point

KRA280 Metal Box
not included in set.



344AMB

344AMB Chrome General Service Set.

44 pieces include:

12-Point Shallow Sockets:

SW121A	3/8"	SW281	7/8"
SW141A	7/16"	SW301	15/16"
SW161A	1/2"	SW321	1"
SW181A	9/16"	SW341	1 1/16"
SW201	5/8"	SW361	1 1/8"
SW221	11/16"	SW381	1 3/16"
SW241	3/4"	SW401	1 1/4"
SW261	13/16"	SW421	1 5/16"

12-Point Deep Sockets:

S161A	1/2"	S281	7/8"
S181A	9/16"	S301	15/16"
S201	5/8"	S321	1"
S221	11/16"	S341	1 1/16"
S241	3/4"	S361	1 1/8"
S261	13/16"		

also includes:

S4	18 7/8" Speeder
S8	2 11/16" Universal Joint
S12L	12" Sliding T-Handle
S77A	Ratcheting Adaptor
S80	Sealed Ratchet
SN18B	18" Breaker Bar
SX2	2" Extension
SXK5	5" Extension
SXK11	11" Extension
LRS70A	1 19/32" Ratchet Spinner

6-Point Universal Sockets:
307SUY Set. 9/16" to 19/16" (7 pcs)

360MB Chrome General Service Set in KRA21G Metal Box

60 pieces include:

12-Point Shallow Sockets:

SW121A	3/8"	SW281	7/8"
SW141A	7/16"	SW301	15/16"
SW161A	1/2"	SW321	1"
SW181A	9/16"	SW341	1 1/16"
SW201	5/8"	SW361	1 1/8"
SW221	11/16"	SW381	1 3/16"
SW241	3/4"	SW401	1 1/4"
SW261	13/16"	SW421	1 5/16"

6-Point Deep Sockets:

TS161A	1/2"
TS181A	9/16"
TS201	5/8"
TS221	11/16"
TS241	3/4"
TS261	13/16"
TS281	7/8"
TS301	15/16"
TS321	1"
TS341	1 1/16"
TS361	1 1/8"

12-Point Deep Sockets:

S161A	1/2"
S181A	9/16"
S201	5/8"
S221	11/16"
S241	3/4"
S261	13/16"
S281	7/8"
S301	15/16"
S321	1"
S341	1 1/16"

6-Point Universal Sockets:
307SUY Set. 9/16" to 19/16" (7 pcs)

also includes:

A17	15/16" Blade Width Drag Link Socket	SXK5	5" Extension
S9705K	13/16" 6 pt Spark Plug Socket	SXK11	11" Extension
S12L	12" Sliding T-Handle	A80A	1/4" to 1/2" Capacity Stud Remover
S77A	Ratcheting Adaptor	LRS70A	1 19/32" Ratchet Spinner
SN18B	18" Breaker Bar	S80	Sealed Ratchet
SX2	2" Extension	SL80	Long Handle Sealed Ratchet
SXK3	3 1/2" Extension	S4	18 7/8" Speeder
		S8	2 11/16" Universal Joint



360MB

1/2" Drive General Service Sets

Metric, 6-Point



317AMMPC

317AMMPC Metric 6-Point General Service Set

17 pieces include:

6-Point Shallow Sockets:

TWM12A	12mm	TWM18	18mm
TWM13A	13mm	TWM19	19mm
TWM14A	14mm	TWM20	20mm
TWM15A	15mm	TWM21	21mm
TWM16	16mm	TWM22	22mm
TWM17	17mm	TWM23	23mm
		TWM24	24mm

also includes:

S80	Sealed Ratchet
SXK5	5" Extension
SXK11	11" Extension
SN18B	18" Breaker Bar

Metric, 12-Point



345MMB

345MMB Chrome General Service Set.

45 pieces include:

12-Point Socket Sets:

- 323SWMY Metric 12 pt Shallow Socket Set** (23 pcs) (10 to 32mm)
- 313SMYA Metric 12 pt Deep Socket Set** (13 pcs) (12 to 24mm)

also includes:

- S4** 18 7/8" Speeder
- S8** 2 1/16" Universal Joint
- S12L** 12" Sliding T-Handle
- S77A** Ratcheting Adaptor
- S80** Sealed Ratchet
- SN18B** 18" Breaker Bar
- SXK3** 3 1/2" Extension
- SXK5** 5" Extension
- SXK11** 11" Extension

KRA280 Metal Box not included in set.

Specialty Ratchets



							A	B	C			
<i>FOD Ratchets</i>												
S936FOD	—	Standard Handle	Sealed				36	10°	3/4	1 5/8	17 5/8	—
<i>Specialty Ratchets</i>												
SR936	—	Quick Release	—				36	10°	3/4	1 5/8	10 5/16	RKRSR936
SA936A	—	Scaffold	Sealed				36	10°	3/4	1 5/8	10 5/16	RKRSA936
—	GSP936	Spud	Sealed				36	10°	3/4	1 5/8	15 5/8	RKRSP936-1

ASME/ANSI B107-10M-1996

S936FOD. This ratchet is designed to help prevent foreign object damage in sensitive work environments. The coverplate and reverse lever are permanently affixed to the ratchet head with rivets to prevent the chance of small parts debris.

SR936. The quick release ratchet features a push button release in the center of the square drive for easy one handed socket removal.

GSP936. The "spud" ratchet is ideal for lining up holes in scaffolding and other construction jobs. A long reverse lever provides easy reversing while wearing heavy work gloves. Locking button retention. Taper diameter is 3/16"-7/8". Taper length is 8".

Ratchets 1/2" Drive

Dual 80™ Technology Ratchets

Stop, Turn and Listen. Introducing the smoothest, strongest ratchets on the planet. You have to try them to believe them.

Dual 80™ Technology Ratchet Features:

- 80 tooth gear
- 7 teeth in contact with gear to provide strength and durability
- Ratchet Arc - Dual 80™ Technology ratchet has 25% less ratcheting arc and requires the least amount of arc to engage the next gear tooth
- Sealed Head keeps dirt and other contaminants out of the head mechanism



High Strength Sealed Ratchets



High Strength Sealed Ratchets

Patented design that features high tech seals and special O-rings to seal in permanent lubrication and seal out dust, dirt, moisture, and other contaminants. You get a smooth running ratchet that doesn't require routine maintenance. U.S. Patent No. 4,934,220 and 6,125,722.

								A	B	C	
<i>High Strength Sealed Ratchets</i>											
S80	GS80	Standard Handle	Sealed		80	4.5°	3/4	1 5/8	10 5/16		RKRS80
SH80	—	Standard Handle	Sealed	Comfort	80	4.5°	3/4	1 5/8	12		RKRS80
SL80	—	Long Handle	Sealed		80	4.5°	3/4	1 5/8	15		RKRS80
SHL80	—	Long Handle	Sealed	Comfort	80	4.5°	3/4	1 5/8	16 5/8		RKRS80
SF80*	—	Flex Head	Sealed		80	4.5°	3/4	1 5/8	17 21/32		RKRS80
SLF80*	—	Long Flex Head	Sealed		80	4.5°	3/4	1 5/8	24 13/16		RKRS80
SHLF80*	—	Long Flex Head	Sealed	Comfort	80	4.5°	3/4	1 5/8	25 3/4		RKRS80
SX80**	—	Locking Flex Head	Sealed		80	4.5°	3/4	1 5/8	17 5/8		RKRS80

ASME/ANSI B107-10M-1996

*Uses RKRSX936JT Flex Joint Repair Kit

**Uses RKRSX936JT Flex Joint Repair Kit and RKRSX936LM Locking Mechanism Repair Kit.



WARNING



- Do not use chrome or industrial finish hand tools with impact drivers.
- Frequently inspect, clean, and lubricate all nonsealed ratchet mechanisms with oil. Do not immerse sealed ratchets in fluids.
- Do not replace worn parts individually; use entire contents of the service kit.
- Read additional safety precautions on pages 534 to 537.

1/2" Drive Accessories



SXX8

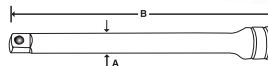
GSXK5



305ASXW



GSXWK5



Knurled Extensions

		A	B
SX2	—	5/8	2 1/8
SXK3	GSXK3	5/8	3 1/2
SXK5	GSXK5	5/8	5
SXK8	—	5/8	8
SXK11	GSXK11	5/8	11
SX15	—	5/8	15
SX20	—	5/8	20
SX24	—	5/8	24
SX36	—	5/8	36

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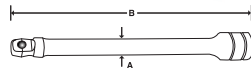
305ASX Set. Includes SX2 thru SXK11 (5 pcs) (2" to 11").



305SXWP



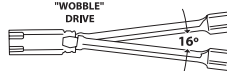
SXWP5



Wobble Plus Extensions

Extensions are usable in both wobble and rigid functionality. Wobble function provides 16° of additional accessibility. Knurled shanks for easy fingertip turning.

	A	B
SXWP2	5/8	2
SXWP3	5/8	3
SXWP5	5/8	5
SXWP8	5/8	8
SXWP11	5/8	11

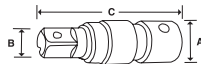


ASME/ANSI B107.10M-1996

305SXWP Set. Includes SXWP2 thru SXWP11 (5 pcs) (2" to 11").



GALX3

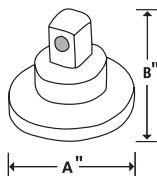


Locking Adaptor

	A	B	C
GALX3	1/2	1/2	3 1/8



LRS70A



Ratchet Spinner

	A	B
LRS70A	3/4	3 19/32

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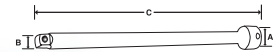
Wobble Extensions

Wobble function provides 16° of additional accessibility. Knurled shanks for easy fingertip turning.

		A	B
SXW2	GSXW2	5/8	2
SXWK3	—	5/8	3 1/2
SXWK5	GSXWK5	5/8	5
SXWK8	—	5/8	8
SXWK11	GSXWK11	5/8	11

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305ASXW Set. Includes SXW2 thru SXWK11 (5 pcs) (2" to 11").



GAX12

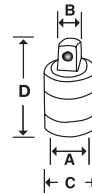
Extension Adaptors

	A	B	C
GAX5	1/2	3/8	5
GAX12	1/2	3/8	12
GAX24	1/2	3/8	23 1/4
GAX36	1/2	3/8	36

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GLA12B



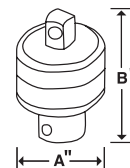
Adaptors

		A	B	C
—	GSAF1E	1/2	3/8	1 1/2
A2A	GAF2A	3/8	1/2	1 5/16
—	GLA12B	1/2	3/4	1 7/8
—	GLAS1E	3/4	1/2	3

ASME/ANSI B107.10M-1996



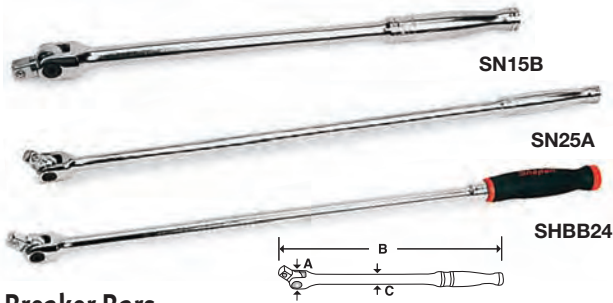
S77A



Ratcheting Adaptor

		A	B	
S77A	20	18°	1 5/8	2 9/16
				RKRS77

Accessories 1/2" Drive

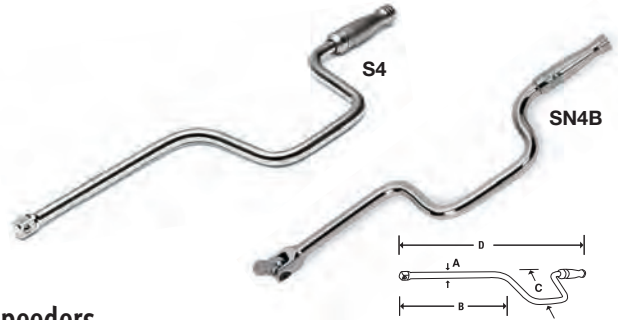


Breaker Bars

		A	B	C
SN15B	—	1 1/8	15	5/8
SN18B	GSN18B	1 1/8	18	5/8
SN24C	—	1 1/8	24	5/8
SHBB24	—	1 1/8	24	5/8
SN25A	—	1 1/8	24	5/8

ASME/ANSI B107.10M-1996

RKBB3 1/2" Breaker Bar Kit. Repair kit for 1/2" drive Breaker Bars.

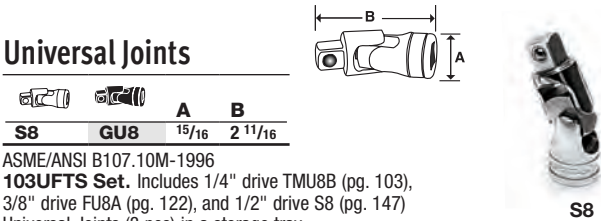


Speeders

	A	B	C	D
S4	1/2	7	4 3/8	18 7/8
SN4B	5/8	6 3/8	3	17 1/4

ASME/ANSI B107.10M-1996

Universal Joints



	A	B
S8	15/16	2 11/16

ASME/ANSI B107.10M-1996

103UFTS Set. Includes 1/4" drive TMU8B (pg. 103), 3/8" drive FU8A (pg. 122), and 1/2" drive S8 (pg. 147) Universal Joints (3 pcs) in a storage tray.

Sliding T-Handle



	A	B	C
S12L	5/8	1 11/16	12

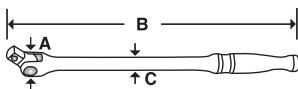
ASME/ANSI B107.10M-1996

Non-Conductive Composite Ratchet and Accessories

Non-Conductive Composite Ratchet

					A	B	C	
CSS949A	Round	Orange	49	7°	1/2	1 19/32	8 3/4	RKRCSS949

CSS949A. No conductive path to user. No insulation to puncture, tear or wear through. Strong as steel. Every tool is individually tested to ensure protection up to 1000VAC and 1500VDC. Only Snap-on® non-conductive tools are UL Listed assuring the customer compliance to IEC60900. This means UL inspects and audits to ensure complete compliance with IEC60900. Lifetime warranty for material and workmanship. U.S Patents 5,970,826, 6,126,882 and 6,203,737 apply.



CSN24B

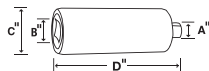
Non-Conductive Composite Breaker Bar

Features the comfort and control of a Snap-on® screwdriver style handle. UL Classified. Each tool is individually tested to ensure protection up to 1000VAC and 1500VDC. Meets IEC 60900 and ASTM 1505 standards for insulating hand tools. Exceeds ASME/ANSI B107.10M strength requirements for standard steel tools.

	A	B	C
CSN24B	1 1/8	24 1/2	1



CA1MF



Non-Conductive Composite Adaptors

Each tool is individually tested to ensure protection up to 1000V. These tools meet or exceed European Standards EN60900 and IEC60900 for dielectric strength tests and design requirements, ASTM 1505 and VDE 0680, Type Test Requirements. These tools meet or exceed B107.10M and ISO 3315 strength requirements for standard, non-insulated steel tools.

	A	B	C	D
CA1MF	3/8	1/2	1 5/16	3 25/32
CA2A	1/2	3/8	1	3 7/8

Non-Conductive Composite Extensions

Each tool is individually tested to ensure protection up to 1000V. These tools meet or exceed European Standards EN60900 and IEC60900 for dielectric strength tests and design requirements, ASTM 1505 and VDE 0680, Type Test Requirements. These tools meet or exceed B107.10M and ISO 3315 strength requirements for standard, non-insulated steel tools.

	A	B	C
CSX5	1/2	1 5/16	5 21/32
CSX10	1/2	1 5/16	10 21/32



WARNING

- Do not use chrome or industrial finish hand tools with impact drivers.
- Frequently inspect, clean, and lubricate all nonsealed ratchet mechanisms with oil. Do not immerse sealed ratchets in fluids.
- Do not replace worn parts individually; use entire contents of the service kit.
- Read additional safety precautions on pages 534 to 537.



1/2" Drive FLANK DRIVE® Sockets



TW241



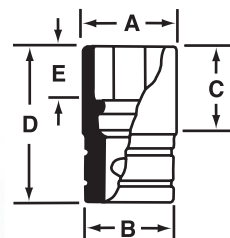
SW241








GTW121A



GSW181A



Shallow

					A	B	C	D	E
3/8	TW121A	SW121A	GTW121A	GSW121A	19/32	29/32	7/8	1 1/2	5/16
7/16	TW141A	SW141A	GTW141A	GSW141A	11/16	29/32	7/8	1 1/2	11/32
1/2	TW161A	SW161A	GTW161A	GSW161A	3/4	29/32	7/8	1 1/2	13/32
9/16	TW181A	SW181A	GTW181A	GSW181A	13/16	29/32	7/8	1 1/2	13/32
5/8	TW201	SW201	GTW201	GSW201	15/16	7/8	7/8	1 1/2	15/32
11/16	TW221	SW221	GTW221	GSW221	31/32	29/32	7/8	1 1/2	1/2
3/4	TW241	SW241	GTW241	GSW241	1 1/32	31/32	7/8	1 1/2	9/16
13/16	TW261	SW261	GTW261	GSW261	1 1/8	1 1/16	7/8	1 1/2	9/16
7/8	TW281	SW281	GTW281	GSW281	1 3/16	1 1/8	7/8	1 1/2	25/32
15/16	TW301	SW301	GTW301	GSW301	1 9/32	1 7/32	27/32	1 17/32	3/4
1	TW321	SW321	GTW321	GSW321	1 11/32	1 9/32	7/8	1 9/16	3/4
1 1/16	TW341	SW341	GTW341	GSW341	1 7/16	1 3/8	1 31/32	1 11/16	3/4
1 1/8	TW361	SW361	GTW361	GSW361	1 1/2	1 7/16	1 31/32	1 3/4	1 3/16
1 3/16	TW381	SW381	—	GSW381	1 5/8	1 9/16	1 1/8	1 3/4	3/4
1 1/4	TW401	SW401	GTW401	GSW401	1 11/16	1 5/8	1 1/4	1 7/8	3/4
1 5/16	TW421	SW421	—	GSW421	1 3/4	1 11/16	1 1/4	1 7/8	1
1 3/8	TW441	SW441	—	GSW441	1 13/16	1 3/4	1 7/16	2 1/16	1
1 7/16	TW461	SW461	—	—	1 15/16	1 7/8	1 5/8	2 1/4	1
1 1/2	TW481	SW481	—	GSW481	2	1 15/16	1 5/8	2 1/4	1

ASME/ANSI: B107.1-1993

6-Point Shallow Set:

313TWYA Set. TW121A thru TW361 (13 pcs) (3/8" to 1 1/8").

6-Point Shallow Industrial Set:

314GTWYA Set. GTW121A thru GTW401 (14 pcs) (3/8" to 1 1/4").

12-Point Shallow Set:

313SWYA Set. SW121A thru SW361 (except SW191) (13 pcs) (3/8" to 1 1/8").



313SWYA



313TWYA

FLANK DRIVE® Sockets 1/2" Drive



TWM20



SWM241



310TWMYA



310SWMYA

Shallow

mm	6	12	A	B	C	D	E
10	TWM10A	SWM101A	15.0	23.2	22.2	38.1	7.9
11	TWM11A	SWM111A	16.6	23.2	22.2	38.1	8.7
12	TWM12A	SWM121A	18.2	23.2	22.2	38.1	9.5
13	TWM13A	SWM131A	19.0	23.2	22.2	38.1	10.3
14	TWM14A	SWM141A	20.6	23.2	22.2	38.1	10.3
15	TWM15A	SWM151A	22.2	22.2	22.2	38.1	10.3
16	TWM16	SWM161	23.8	22.2	22.2	38.1	11.9
17	TWM17	SWM171	24.6	23.2	22.2	38.1	12.7
18	TWM18	SWM181	25.4	23.8	21.4	38.1	14.2
19	TWM19	SWM191	26.3	24.8	21.3	38.1	13.9
20	TWM20	SWM201	26.7	26.1	21.2	38.1	14.0
21	TWM21	SWM211	28.3	27.5	21.1	38.1	14.0
22	TWM22	SWM221	29.9	28.6	20.9	38.1	14.2
23	TWM23	SWM231	31.2	29.9	20.8	38.1	14.5
24	TWM24	SWM241	32.5	30.9	22.2	38.8	15.8
25	TWM25	SWM251	33.3	31.7	22.2	38.8	15.8
26	TWM26	SWM261	34.9	33.3	23.8	41.2	15.8
27	TWM27	SWM271	36.5	34.9	25.4	42.8	17.4
28	TWM28	SWM281	38.1	36.5	26.9	44.4	17.4
29	TWM29	SWM291	39.3	38.0	26.1	44.5	17.8
30	TWM30	SWM301	41.0	39.6	26.1	44.5	18.5
31	TWM31	SWM311	42.5	41.2	29.1	47.6	19.1
32	TWM32	SWM321	42.5	41.2	28.9	47.6	19.8

Metric 6-Point Shallow Sets:

313TWMYA Metric 6-Point Shallow Set.

TWM12A thru TWM24 (13 pcs) (12 to 24mm).

310TWMYA Metric 6-Point Shallow Set.

TWM10A thru TWM19 (10 pcs) (10 to 19mm).

Metric 12-Point Shallow Sets:

313SWMYA Metric 12-Point Shallow Set.

SWM121A thru SWM241 (13 pcs) (12 to 24mm).

310SWMYA Metric 12-Point Shallow Set.

SWM101A thru SWM191 (10 pcs) (10 to 19mm).



TS241



S241



GTS241



GS201

Deep

mm	6	12	6	12	A	B	C	D	E
3/8	TS121A	S121A	GTS121A	—	19/32	29/32	2 5/8	3 1/4	5 1/16
7/16	TS141A	S141A	GTS141A	—	3/4	29/32	2 5/8	3 1/4	11/32
1/2	TS161A	S161A	GTS161A	GS161A	3/4	29/32	2 5/8	3 1/4	13/32
9/16	TS181A	S181A	GTS181A	GS181A	13/16	29/32	2 5/8	3 1/4	13/32
5/8	TS201	S201	GTS201	GS201	15/16	7/8	1 31/32	3 1/4	15/32
11/16	TS221	S221	GTS221	GS221	31/32	29/32	1 31/32	3 1/4	1/2
3/4	TS241	S241	GTS241	GS241	1 1/32	31/32	2 9/8	3 1/4	9/16
13/16	TS261	S261	GTS261	GS261	1 1/8	1 1/16	2 5/8	3 1/4	9/16
7/8	TS281	S281	GTS281	GS281	1 3/16	1 1/8	2 5/8	3 1/4	9/16
15/16	TS301	S301	GTS301	GS301	1 9/32	1 7/32	1 31/32	3 1/4	3/4
1	TS321	S321	GTS321	GS321	1 11/32	1 9/32	1 31/32	3 1/4	3/4
1 1/16	TS341	S341	GTS341	GS341	1 7/16	1 3/8	1 31/32	3 1/4	3/4
1 1/8	TS361	S361	GTS361	GS361	1 1/2	1 7/16	1 31/32	3 1/4	1 3/16
1 3/16	TS381	S381	GTS381	GS381	1 5/8	1 9/16	2 5/8	3 1/4	1 3/16
1 1/4	TS401	S401	GTS401	GS401	1 11/16	1 5/8	2 5/8	3 1/4	1
1 5/16	TS421	S421	—	—	1 3/4	1 11/16	2 9/16	3 1/4	1
1 3/8	TS441	S441	—	—	1 13/16	1 3/4	2 9/16	3 1/4	1
1 7/16	TS461	S461	—	—	1 15/16	1 7/8	2 5/8	3 1/4	1
1 1/2	TS481	S481	—	—	2	1 15/16	2 5/8	3 1/4	1 1/16

ASME/ANSI B107.1-1993

6-Point Chrome Deep Set:

313TSYA 6-Point Deep Set. TS121A thru TS361 (13 pcs) (3/8" to 1 1/8").

6-Point Deep Industrial Set:

313GTSYA 6-Point Deep Set. GTS121A thru GTS361 (13 pcs) (3/8" to 1 1/8").

12-Point Chrome Deep Set:

313SYA 12-Point Deep Set. S121A thru S361 (13 pcs) (3/8" to 1 1/8").



313TSYA



313SYA

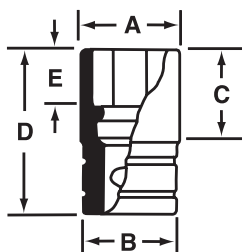


WARNING

- Do not use chrome or industrial finish hand tools with impact drivers.
- Read additional safety precautions on pages 534 to 537.



1/2" Drive FLANK DRIVE® Sockets



313TSMYA



310TSM



313SMA

Deep

mm	6	12	A	B	C	D	E
10	TSM10A	SM10A	15.0	23.2	66.7	82.6	7.9
11	—	SM11A	16.6	23.2	66.7	82.6	8.7
12	TSM12A	SM12B	18.2	23.2	66.7	82.6	9.5
13	TSM13A	SM13A	19.0	23.2	66.7	82.6	10.3
14	TSM14A	SM14A	20.6	23.2	66.7	82.6	10.3
15	TSM15A	SM15A	22.2	22.2	66.7	82.6	10.3
16	TSM16	SM16	23.8	22.2	51.0	82.6	11.9
17	TSM17	SM17	24.6	23.2	51.0	82.6	12.7
18	TSM18	SM18	25.4	23.8	51.0	82.6	14.3
19	TSM19	SM19	26.3	24.6	52.5	82.6	14.2
20	TSM20	SM20	26.7	26.1	58.5	82.6	14.0
21	TSM21	SM21	28.3	27.5	58.5	82.6	14.0
22	TSM22	SM22	29.9	28.6	58.5	82.6	14.2
23	TSM23	SM23	31.2	29.9	58.0	82.6	14.5
24	TSM24	SM24	32.5	30.9	50.0	82.6	15.8
25	TSM25	SM25	33.3	31.7	50.0	82.6	15.8
26	TSM26	SM26	34.9	33.3	50.0	82.6	15.8
27	TSM27	SM27	36.2	34.9	50.0	82.6	17.5
28	TSM28	SM28	37.8	36.5	50.0	82.6	17.5
29	TSM29	SM29	39.3	38.0	64.3	82.6	17.8
30	TSM30	SM30	41.0	39.6	64.0	82.6	18.5
31	TSM31	SM31	42.5	41.2	64.0	82.6	19.1
32	TSM32	SM32	42.5	41.2	63.8	82.6	19.8

6-Point Chrome Deep Sets:

313TSMYA Metric 6-Point Deep Set. TSM12A thru TSM24 (13 pcs) (12 to 24mm).

310TSM Metric 6-Point Deep Set. TSM10A thru TSM20 (10 pcs) (10 to 19mm).

6-Point Chrome Deep/Shallow Set:

320TSWMA Metric 6-Point Shallow/Deep Set. Includes TWM10A thru TWM19 Shallow Sockets (pg. 143) and TSM10A thru TSM20 Deep Sockets (pg. 144) (20 pcs) (10 to 20mm).

12-Point Chrome Deep Set:

313SMA Metric 12-Point Deep Set. SM12B thru SM24 (except SM20.6) (13 pcs) (12 to 24mm).



SU24

Universal

mm	6	A	B	D	E
9/16	SU18	27/32	15/16	2 7/16	11/32
5/8	SU20	15/16	15/16	2 15/32	3/8
11/16	SU22	1 1/16	1 1/16	2 9/16	7/16
3/4	SU24	1 1/8	1 1/8	2 7/8	1/2
13/16	SU26	1 3/16	1 1/8	2 15/16	9/16
7/8	SU28	1 1/4	1 1/8	2 15/16	9/16
15/16	SU30	1 5/16	1 1/8	3	9/16

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Socket Drivers 1/2" Drive



SA20E



307ESAY

Hex

mm	A	B		
5/16	SA10E	GSA10E	2 3/8	FA10E2
3/8	SA12E	GSA12E	2 1/2	SA12E2
7/16	SA14E	GSA14E	2 7/8	SA14E2
1/2	SA16E	GSA16E	3 1/16	SA16E2
9/16	SA18E	GSA18E	3 3/16	SA18E2
5/8	SA20E	GSA20E	3 11/32	LAW120E2
3/4	SA24E	GSA24E	4 1/16	LAW124E2

307ESAY Standard Length Hex Set. SA10E thru SA24E (7 pcs) (5/16" to 3/4").



SADM10E



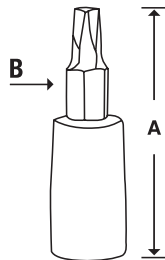
Double Hex

Essential for removal and installation of head bolts on Toyota Highlander, 4Runner, Camry, Matrix, Corolla and Lexus IS300, GS300, SC300 vehicles. Double Hex socket drivers and Triple Square socket drivers cannot be interchanged between applications. Using a Triple Square tool in a Double hex application will strip the bolt head. In general, Triple Square tools are used on European vehicles and Double Hex tools are used on Asian vehicles.

mm	A	B	
10	SADM10E	100	SADM10E2



STX55E

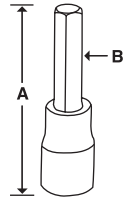


TORX®

#	A	B	
<i>Standard:</i>			
T55	STX55E	2 9/16	FTX55E2
T60	STX60E	3 11/32	STX60E2
T70	STX70E	3 1/2	STX70E2
<i>Long:</i>			
T45	STXL45E	4 5/8	STXL45E2
T50	STXL50E	4 5/8	STXL50E2
T55	STXL55E	4 5/8	STXL55E2
T60	STXL60E	4 5/8	STXL60E2



STXL45E



SAM19E

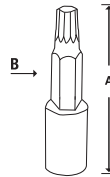


307ESAMY

Hex

mm	A	B	
6	SAM6E	60.5	FAM6E
8	SAM8E	62.0	FAM8E2
10	SAM10E	62.8	SAM10E2
12	SAM12E	81.0	SAM12E2
14	SAM14E	81.0	SAM14E2
17	SAM17E	93.7	SAM17E2
19	SAM19E	103.1	SAM19E2

307ESAMY Metric Standard Length Set. SAM6E thru SAM19E (7 pcs) (6 to 19mm).



STSM10E



TSSKIT

Triple Square

Pinless bits (no roll pin) provide a solid fit, easily replaces and have no hole to collect dirt and grit. Bit sockets are chrome plated. Bits feature natural oil coat finish to protect against corrosion. Double Hex socket drivers and Triple Square socket drivers cannot be interchanged between applications. Using a Triple Square tool in a Double Hex application will strip the bolt head. In general, Triple Square tools are used on European vehicles and Double Hex tools are used on Asian vehicles.

mm	A	B	
10	STSM10E	88.9	STSM10E2
12	STSM12E	109.5	STSM12E2
12	STSM12LE	147.6	STSM12LE2
14	STSM14E	108.0	STSM14E2
16	STSM16E*	108.0	STSM16E2

*Tamper Resistant

STSM14E Metric Triple Square Driver. Applications include 2003 and later VW Touareg front axle bolts, 2003 and later Porsche Cayenne front axle bolts, various Audi / VW axle bolts plus Audi TT differential mount bolts and transmission drain plug.

STSM16E Metric Triple Square Driver. Applications include Audi TT Clutch and Belly Pan, various VW / Audi transmission drain plugs (tamper resistant), 2003 and later VW Touareg front and rear brake caliper bolts, 2003 and later Porsche Cayenne brake caliper bolts plus Detroit Diesel flywheel bolts and front crank pulley on 900 and 4000 engines and head bolts on 900 engines.

TSSKIT Metric Set. Includes 3/8" drive FTSM6E, FTSM8E and FTSM10E Socket Drivers (6, 8 and 10mm) plus 1/2" drive STSM12E, STSM14E and STSM16E Socket Drivers (12, 14 and 16mm) in storage tray.

Applications:

FTSM6E (6mm, 3/8" drive) - Various applications on European vehicles.

FTSM8E (8mm, 3/8" drive) - Remove and install head and accessory bolts on Mercedes, and remove and install axle shaft bolts on VW and Audi's.

FTSM10E (10mm, 3/8" drive) - Used for cylinder head bolts and drive shaft bolts on Mercedes, and remove and install axle shaft bolts on VW and Audi's.

STSM12E (12mm, 1/2" drive) - Remove and install cylinder head bolts on Mercedes, rear toe adjustment on 1999 and newer Audi A6, and axel shaft bolts on new VW's.

STSM14E (14mm, 1/2" drive) see descriptions above.

STSM16E (16mm, 1/2" drive) see descriptions above.



WARNING

- Do not use chrome or industrial finish hand tools with impact drivers.
- Read additional safety precautions on pages 534 to 537.



1/2" Drive Socket Drivers



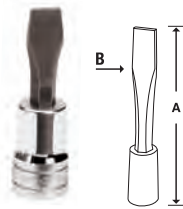
#		A	B
#3	SP32E	2 3/16	SP32E2
#4	SP42E	2 5/16	SP42E2



SP32E

Flat Tip

		A	B
7/16" x .050"	SW28E	3 1/16	SW28E2
1/2" x .075"	SW32E	3 1/16	SW32E2A
5/8" x .093"	SW40E	3 1/4	SW40E2



SW32E



SAM12LE

SAM12LE Long Hex Socket Driver. Essential for removal or installation of bolt found on the lower forks of 2006 and newer Harley-Davidson® Dyna® series. Used when servicing the internal parts of the fork.



SPDL10E

Polydrive Head Bolts

Pinless bits (no roll pin) provide a solid fit, are easily replaced and have no hole to collect dirt and grit. Bit sockets are chrome plated. Bits feature natural oil coat finish to protect against corrosion.

mm		Description	A	B
10	SPDL10E	#10 Polydrive Head Bolt Socket Driver	159	SPDL10E2

SPDL10E Socket Driver. Use to remove and install #10 Polydrive cylinder head bolts on 1998 and later VW/Audi vehicles with 5 valve motors.

Special Purpose Sockets

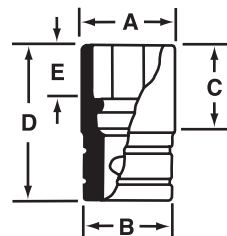
Double Square

#		A	B	C	D	E
3/8	SW412	23/32	7/8	7/8	1 1/2	5/16
7/16	SW414	51/64	7/8	7/8	1 1/2	3/8
1/2	SW416	29/32	7/8	7/8	1 1/2	13/32
9/16	SW418	31/32	29/32	7/8	1 1/2	7/16
5/8	SW420	1 1/16	1	7/8	1 1/2	1/2
11/16	SW422	1 3/16	1 1/8	7/8	1 1/2	1/2
3/4	SW424	1 9/32	1 3/16	7/8	1 1/2	9/16
13/16	SW426	1 7/16	1 3/8	1	1 5/8	5/8
7/8	SW428	1 1/2	1 7/16	1 1/8	1 3/4	5/8
15/16	SW430	1 5/8	1 9/16	1 1/8	1 13/16	11/16
1	SW432	1 11/16	1 5/8	1 1/4	1 7/8	11/16

ASME/ANSI B107.1-1993



SW420



Shallow TORX®

#		A	B	D
E14	SLE140	21/32	7/8	1 1/2
E16	SLE160A	23/32	27/32	1 1/2
E18	SLE180A	27/32	7/8	1 1/2
E20	SLE200A	15/16	7/8	1 1/2
E24	SLE240	1 1/16	1	1 1/2

213AFLEY Combination Drive Shallow TORX® Set. Includes 1/4" drive TLE40A thru TLE100A (pg. 109), 3/8" drive FLE110A thru FLE140A (pg. 129) and 1/2" drive SLE160A thru SLE240 (pg. 152) (13 pcs) (E4 to E24).



SLE160A

WEATHERHEAD® Sockets

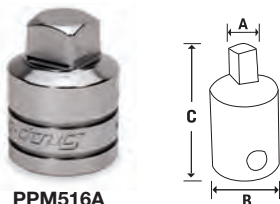
#		A	B
7/8	WH280	1 3/8	1 13/16
29/32	WH290	1 7/16	1 13/16
15/16	WH300	1 1/2	1 13/16



WH290

Pipe Plug

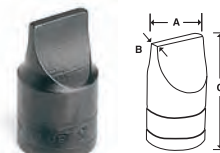
	A	B	C
PPM516A	1/2	15/16	1 7/16



PPM516A

Drag Link

	A	B	C
A26A	3/4	.109	1 11/16
A17A	15/16	.150	1 11/16
A15A	1 3/16	.150	1 11/16



A26A

Torque Adaptor

SRDM624 Torque Adaptor. Services the rear brake caliper mounting bracket assembly on 2007 Ford F450/550 trucks. Tool fits between the bracket bolt and frame to allow the use of a torque wrench to properly torque the bracket bolts. 24mm. 6" long. 12-point wrench design. 1/2" square drive.



SRDM624

FLANK DRIVE® Pentagon Socket

	A	B	C
B2191	1 1/8	1/2	1 1/16

B2191 Pentagon Socket. Services recessed 5-point nuts found on tamper resistant Buffalo covers used by gas, electric, and water companies to protect shut off gates.



B2191

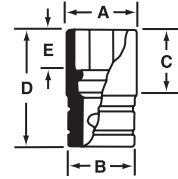
FLANK DRIVE® Power Sockets 1/2" Drive

Deep

	6	A	B	C	D	E
17	SPM17	24.6	24.6	66.6	82.6	12.7
19	SPM19	26.4	26.4	64.8	82.6	11.9
21	SPM21	28.3	28.3	64.8	82.6	12.3



SPM17



Surface Drive Power Sockets



DTS16A

Deep

	II	A	B	C	D	E
1/2	DTS16A	3/4	29/32	2 19/32	3 1/4	13/32
9/16	DTS18A	13/16	29/32	2 19/32	3 1/4	13/32

Surface drive sockets are used in the industrial market for assembly line work. The lead in chamfer and special design of these sockets will engage with a fastener while rotating on a power nut runner. U.S. Patent No. 4,512,220 applies.



DTSM13A

Deep

mm	II	A	B	C	D	E
13	DTSM13A	19.3	21.8	65.8	82.6	10.2
15	DTSM15A	22.3	21.8	65.8	82.6	10.7



DTM15A

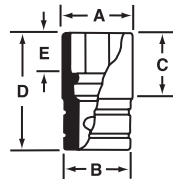
Shallow

mm	II	A	B	C	D	E
15	DTM15A	22.3	22.9	21.3	38.1	10.7

Special Purpose Power Sockets



P412



Shallow Double Square

II	8	A	B	C	D	E
3/8	P412	13/32	7/8	7/8	1 1/2	5/16
7/16	P414	13/16	15/16	7/8	1 1/2	3/8
1/2	P416	29/32	1	7/8	1 1/2	5/16
9/16	P418	1	1 1/8	7/8	1 1/2	1/2
5/8	P420	1 3/32	1 3/16	7/8	1 1/2	1/2
11/16	P422	1 7/32	1 1/4	7/8	1 1/2	13/32
3/4	P424	1 5/16	1 3/8	7/8	1 1/2	9/16
13/16	P426	1 7/16	1 7/16	7/8	1 1/2	5/8
7/8	P428	1 1/2	1 9/16	7/8	1 1/2	5/8
1	P432	1 23/32	1 3/4	1 1/8	1 3/4	3/4



SIPR426

Deep Double Square

II	8	A	B	C	D	E
13/16	SIPR426	1 7/16	1 3/8	2 9/16	3 1/4	5/8
1	SIPR432	1 3/4	1 1/2	2 11/16	3 1/2	3/4
1 1/8	SIPR436	1 15/16	1 1/2	2 23/32	3 1/2	27/32



WARNING

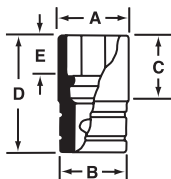


- Do not use chrome or industrial finish hand tools with impact drivers.
- Read additional safety precautions on pages 534 to 537.

1/2" Drive Special Purpose Power Sockets



SIPRL436



MPK121A

Extra Deep Double Square

1/2" Drive	8	A	B	C	D	E
1 1/8	SIPRL436	1 15/16	1 1/2	4 13/32	5	27/32

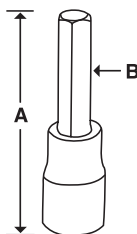
FLANK DRIVE® Magnetic

1/2" Drive	6	A	B	D	E
3/8	MPK121A	19/32	7/8	1 1/2	1/8
7/16	MPK141A	11/16	7/8	1 1/2	5/32
1/2	MPK161A	25/32	15/16	1 1/2	5/32
9/16	MPK181A	7/8	15/16	1 1/2	5/32

Power Drivers



PSA10E

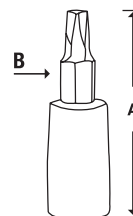


Hex

1/2" Drive	Part	A	B
5/16	PSA10E	2 7/16	FA10E2
3/8	PSA12E	2 9/16	SA12E2
7/16	PSA14E	2 7/8	SA14E2
1/2	PSA16E	3 1/16	SA16E2
9/16	PSA18E	3 1/8	SA18E2
5/8	PSA20E	3 7/16	LAW120E2
3/4	PSA24E	4 1/16	LAW124E2



PSTX50E



TORX®

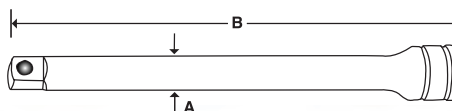
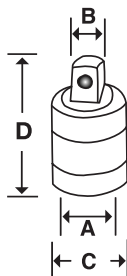
1/2" Drive	Part	A	B
T45	PSTX45E	2 7/16	FTX45E2
T50	PSTX50E	2 9/16	FTX50E2
T50	PSTX500E*	2 7/8	FTX500E2
T55	PSTX55E	3 1/16	FTX55E2

*GM Style TORX

Power Accessories



PA2A



PS2

Adaptors (Lock Button Retention)

1/2" Drive	A	B	C	D
PA2A	3/8	1/2	3/4	1 5/16
PA4E	3/8	1/2	15/16	1 15/32

Extensions (Lock Button Retention)

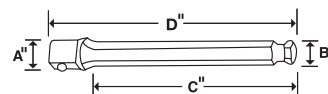
1/2" Drive	A	B
PS2	5/8	2
PS3	5/8	3 1/2
PS5	5/8	5
PS10	5/8	10

Hex Shank

1/2" Drive	A	B	C	D
A3011A	1/2	7/16	1 1/4	2 3/4



A3011A



FLANK DRIVE® Impact Sockets 1/2" Drive



IM200



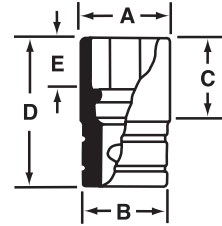
IMD200

RELATED ITEMS

Impact Wrenches (Air), pgs 248, 249
 Impact Wrenches (Cordless), pg 270
 Ratchets (Air), pg 252



307IMDYA



Shallow

11	6	12	A	B	C	D	E
3/8	IM120A	IMD120A	19/32	29/32	7/8	1 1/2	5/16
7/16	IM140A	IMD140A	23/32	29/32	7/8	1 1/2	11/32
1/2	IM160A	IMD160A	13/16	29/32	7/8	1 1/2	13/32
9/16	IM180A	IMD180A	7/8	29/32	7/8	1 1/2	13/32
5/8	IM200	IMD200	15/16	1	7/8	1 1/2	15/32
11/16	IM220	IMD220	1 1/16	1 1/16	3/4	1 1/2	1/2
3/4	IM240	IMD240	1 1/8	1 1/8	3/4	1 1/2	1/2
13/16	IM260	IMD260	1 1/4	1 1/4	3/4	1 1/2	1/2
7/8	IM280	IMD280	1 5/16	1 5/16	13/16	1 1/2	9/16
15/16	IM300	IMD300	1 3/8	1 3/8	1 1/16	1 3/4	3/4
1	IM320	IMD320	1 7/16	1 7/16	1 1/16	1 3/4	3/4
1 1/16	IM340	—	1 9/16	1 9/16	1	2	13/16
1 1/8	IM360	IMD360	1 5/8	1 5/8	1	2	13/16
1 3/16	IM380	—	1 11/16	1 1/2	1 3/32	2	13/16
1 1/4	IM400	IMD400	1 3/4	1 1/2	1 5/32	2	13/16
1 5/16	IM420H	—	1 7/8	1 1/2	1 3/8	2	7/8
1 3/8	IM440	—	1 15/16	1 1/2	1 3/8	2	7/8
1 7/16	IM460	—	2	1 1/2	1 3/8	2	15/16
1 1/2	IM480	—	2 1/8	1 9/16	1 3/8	2	15/16
1 9/16	IM500	—	2 1/4	1 9/8	1 11/16	2 5/16	15/16

311IMYA 6-Point Shallow Set. IM120A thru IM320 (11 pcs) (3/8" to 1").

12-Point Sets:

313IMD 12-Point Shallow Set. IMD120A thru IMD400 (13 pcs) (3/8" to 1 1/4").

307IMDYA 12-Point Shallow Set. IMD120A thru IMD240 (7 pcs) (3/8" to 3/4").

Shallow

mm	6	12	A	B	C	D	E
10	IMM100A	IMDM100A	15.0	22.6	22.2	38.1	7.9
11	IMM110A	IMDM110A	18.2	22.6	22.2	38.1	8.7
12	IMM120A	IMDM120A	19.0	24.3	22.2	38.1	9.5
13	IMM130A	IMDM130A	20.6	24.3	22.2	38.1	10.3
14	IMM140A	IMDM140A	22.2	24.3	22.2	38.1	10.3
15	IMM150A	IMDM150A	23.8	26.4	22.2	38.1	10.3
16	IMM160A	IMDM160A	24.6	26.4	22.2	38.1	11.9
17	IMM170A	IMDM170A	25.4	26.7	22.2	38.1	12.7
18	IMM180	IMDM180	26.7	26.7	19.1	38.1	12.7
19	IMM190	IMDM190	28.3	28.3	21.3	38.1	12.7
20	IMM200	IMDM200	29.9	29.9	21.1	38.1	14.2
21	IMM210	IMDM210	31.5	31.5	21.0	38.1	14.2
22	IMM220	IMDM220	33.3	33.3	21.4	38.1	15.9
23	IMM230	IMDM230	34.1	34.1	27.8	44.5	15.9
24	IMM240	IMDM240	34.9	34.9	27.8	44.5	15.9
25	IMM250	—	29.8	29.8	27.0	44.5	15.9
26	IMM260	—	38.1	38.1	33.3	50.8	15.9
27	IMM270	—	39.4	39.4	27.1	50.8	20.3
29	IMM290	—	41.1	41.1	33.3	50.8	21.1
30	IMM300	—	42.7	42.7	32.1	50.8	21.6
32	IMM320	—	45.8	45.8	32.1	50.8	22.4
34	IMM340	—	47.6	42.9	40.5	52.4	22.4
36	IMM360	—	50.5	45.8	40.5	57.2	22.4
46	IMM460	—	64.8	47.6	50.3	69.9	29.7

6-Point Sets:

315IMMYA Metric 6-Point Shallow Set. IMM100A thru IMM240A (15 pcs) (10 to 24mm).

310IMMYA Metric 6-Point Shallow Set. IMM100A thru IMM190 (10 pcs) (10 to 19mm).

12-Point Set:

315IMDMYA Metric 12-Point Shallow Set. IMDM100A thru IMDM240 (15 pcs)(10 to 24mm).



IMM170A



IMDM150A



315IMDMYA





WARNING

- Do not use chrome or industrial finish hand tools with impact drivers.
- Read additional safety precautions on pages 534 to 537.



1/2" Drive FLANK DRIVE® Impact Sockets

Shallow Thin Wall

		A	B	C	D	E
3/8	IMFS120	19/32	7/8	3/8	1 1/2	7/32
7/16	IMFS140	11/16	7/8	9/16	1 1/2	11/32
1/2	IMFS160	3/4	7/8	5/8	1 1/2	3/8
9/16	IMFS180	13/16	7/8	11/16	1 1/2	13/32
5/8	IMFS200	29/32	29/32	3/4	1 1/2	15/32
11/16	IMFS220	1	1	13/16	1 1/2	1/2
3/4	IMFS240	1 1/16	1 1/16	13/16	1 1/2	1/2
13/16	IMFS260	1 1/8	1 1/8	25/32	1 1/2	1/2
7/8	IMFS280	1 7/32	1 7/32	29/32	1 1/2	9/16
15/16	IMFS300	1 5/16	1 5/16	1 3/16	1 17/32	3/4
1	IMFS320	1 3/8	1 3/8	1 3/16	1 9/16	3/4
1 1/16	IMFS340	1 7/16	1 7/16	1 1/4	1 11/16	13/16
1 1/8	IMFS360	1 1/2	1 1/2	1 1/4	1 3/4	13/16
1 3/16	IMFS380	1 5/8	1 5/8	1 1/4	1 3/4	13/16
1 1/4	IMFS400	1 11/16	1 11/16	1 1/4	1 7/8	13/16
1 5/16	IMFS420	1 3/4	1 3/4	1 1/4	1 7/8	13/16
1 3/8	IMFS440	1 13/16	1 13/16	1 1/4	2 1/16	13/16
1 7/16	IMFS460	1 29/32	1 29/32	1 3/8	2 1/16	13/16
1 1/2	IMFS480	2	2	1 3/8	2 1/16	13/16

311IMFSY 6-Point Shallow Set. IMFS120 thru IMFS320 (11 pcs) (3/8" to 1").



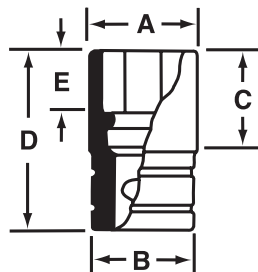
IMFS120



311IMFSY





SIM120A



313SIMA

Deep

		A	B	C	D	E
3/8	SIM120A	19/32	29/32	2 5/8	3 1/4	5/16
7/16	SIM140A	23/32	29/32	2 5/8	3 1/4	11/32
1/2	SIM160A	13/16	29/32	2 5/8	3 1/4	3/8
9/16	SIM180A	7/8	29/32	2 5/8	3 1/4	13/32
5/8	SIM200	31/32	29/32	2 5/8	3 1/4	15/32
11/16	SIM220	1 1/16	1 1/16	2 5/8	3 1/4	1/2
3/4	SIM240	1 1/8	1 1/8	2 5/8	3 1/4	9/16
13/16	SIM260	1 1/4	1 1/4	2 5/8	3 1/4	19/32
7/8	SIM280	1 5/16	1 5/16	2 3/32	3 1/2	9/16
15/16	SIM300	1 3/8	1 3/8	2 3/32	3 1/2	3/4
1	SIM320	1 7/16	1 7/16	2 7/8	3 1/2	3/4
1 1/16	SIM340	1 9/16	1 9/16	2 11/16	3 1/2	25/32
1 1/8	SIM360	1 5/8	1 5/8	2 11/16	3 1/2	25/32
1 3/16	SIM380	1 11/16	1 1/2	2 11/16	3 1/2	25/32
1 1/4	SIM400	1 3/4	1 1/2	2 11/16	3 1/2	1
1 5/16	SIM420H	1 7/8	1 1/2	2 11/16	3 1/2	15/16
1 3/8	SIM440	2	1 1/2	2 11/16	3 1/2	15/16
1 7/16	SIM460	2	1 1/2	2 21/32	3 1/2	15/16
1 1/2	SIM480	2 1/8	1 9/16	2 5/8	3 1/2	15/16
1 9/16	SIM500	2 1/4	1 5/8	2 5/8	3 1/2	15/16

ASME/ANSI B107.2-1995

6-Point Impact Deep Socket Sets:

313SIMA 6-Point Deep Set. SIM160A thru SIM400 (13 pcs) (1/2" to 1 1/4").

309SIMYA 6-Point Deep Set. SIM160A thru SIM320 (9 pcs) (1/2" to 1").

320SIM 6-Point Deep Set. SIM120A thru SIM500 (20 pcs) (3/8" to 1 9/16").

RELATED ITEMS

Impact Wrenches (Air), pgs 248, 249
 Impact Wrenches (Cordless), pg 270
 Ratchets (Air), pg 252

FLANK DRIVE® Impact Sockets 1/2" Drive



SIMM100A



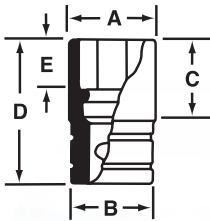
315SIMMYA



310SIMMYA

RELATED ITEMS

Impact Wrenches (Air), pgs 248, 249
 Impact Wrenches (Cordless), pg 270
 Ratchets (Air), pg 252



SIML200

Extra Deep

mm	6	A	B	C	D	E
1/2	SIML160*	25/32	15/16	4 1/4	5	3/8
9/16	SIML180	7/8	15/16	4 1/4	5	13/32
5/8	SIML200	31/32	1	4 1/4	5	15/32
11/16	SIML220	1 1/16	1 1/16	4 1/4	5	1/2
3/4	SIML240	1 1/8	1 1/8	4 1/4	5	9/16
13/16	SIML260	1 1/4	1 1/4	4 1/4	5	19/32
7/8	SIML280	1 5/16	1 5/16	4 1/4	5	21/32
15/16	SIML300	1 3/8	1 3/8	4 1/4	5	23/32
1	SIML320	1 7/16	1 7/16	4 3/8	5	3/4
1 1/16	SIML340	1 9/16	1 9/16	4 3/8	5	25/32
1 1/8	SIML360	1 5/8	1 5/8	4 3/8	5	25/32

ASME/ANSI B107.2-1995

* Use for removing or replacing fuel tank retaining strap nuts. Also has applications on emergency brake adjustment nuts and stabilizer retainers. 1/2" square drive; 1/2", 6-point wrench opening. 5" long.

Deep

mm	6	A	B	C	D	E
10	SIMM100A	15.0	23.2	66.7	82.6	7.9
11	SIMM110A	18.2	23.2	66.7	82.6	8.7
12	SIMM120A	19.0	23.2	66.7	82.6	9.5
13	SIMM130A	20.6	23.2	66.7	82.6	10.3
14	SIMM140A	22.2	23.2	66.7	82.6	10.3
15	SIMM150A	23.8	23.8	50.0	82.6	10.3
16	SIMM160A	24.6	24.6	50.0	82.6	11.9
17	SIMM170	25.1	25.1	57.9	82.6	11.2
18	SIMM180	26.7	26.7	61.0	82.6	12.7
19	SIMM190	28.3	28.3	61.0	82.6	14.2
20	SIMM200	29.9	29.9	61.0	82.6	14.2
21	SIMM210	31.5	31.5	61.0	82.6	14.2
22	SIMM220	33.1	33.1	71.6	88.9	15.7
23	SIMM230	33.1	33.1	64.3	88.9	15.9
24	SIMM240	34.9	34.9	63.5	88.9	15.9
25	SIMM250	36.5	36.5	63.5	88.9	15.9
26	SIMM260	34.9	33.3	50.0	88.9	19.8
27	SIMM270	39.4	39.4	71.0	88.9	20.3
29	SIMM290	41.3	41.3	71.6	88.9	21.3
30	SIMM300	42.9	42.9	71.1	88.9	21.6
32	SIMM320	45.8	45.8	71.1	88.9	22.4
33	SIMM330	46.0	44.5	72.8	88.9	22.4
34	SIMM340	49.3	44.5	72.8	88.9	22.6
35	SIMM350	50.8	45.8	72.8	88.9	22.9
36	SIMM360	50.8	45.8	72.8	88.9	22.9

Metric 6-Point Impact Deep Socket Sets:

315SIMMYA Metric 6-Point Deep Set. SIMM100A thru SIMM240 (15 pcs) (10 to 24mm).

310SIMMYA Metric 6-Point Deep Set. SIMM100A thru SIMM190 (10 pcs) (10 to 19mm).

305SIMMY Metric 6-Point Deep Set. SIMM290, SIMM300, SIMM340, SIMM350, and SIMM360 (5 pcs) (29, 30, 34, 35, and 36mm).

325SIMMY Metric 6-Point Deep Set. SIMM100A thru SIMM360 (25 pcs) (10 to 36mm).



SIMML150

Extra Deep

mm	6	A	B	C	D	E
15	SIMML150	23.2	26.4	91.4	127.0	10.7



SIMMF21

Extra Deep / Thin Wall

Sockets are 34% thinner than a standard thin wall socket. Use to access nuts on long studs and other hard-to-reach areas. Ideal for wheel lugs. Industrial finish helps prevent corrosion. 1/2" square drive.

mm	6	A	B	C	D	E
14	SIMMF14	20.6	23.8	50.8	76.2	25.4
17	SIMMF17	23.8	23.8	50.8	76.2	25.4
19	SIMMF19	25.4	25.4	50.8	76.2	25.4
21	SIMMF21	28.6	28.6	50.8	76.2	25.4
22	SIMMF22	30.2	30.2	50.8	76.2	25.4

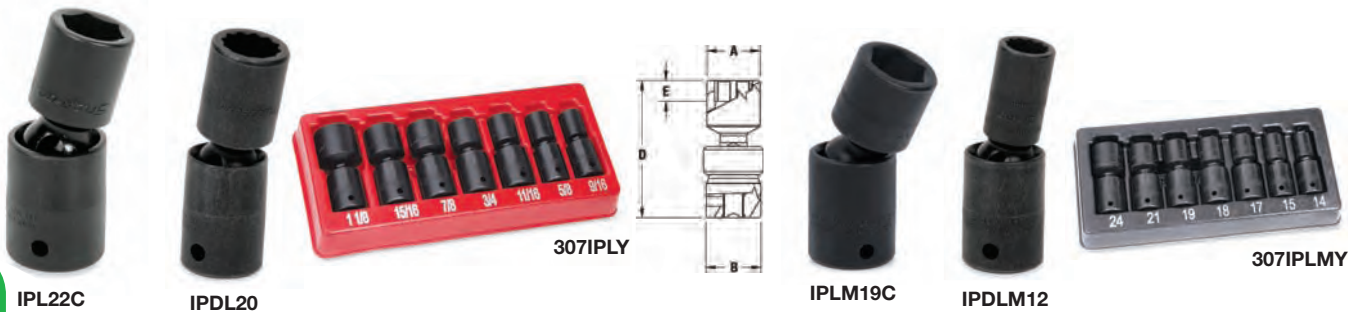


WARNING

• Read additional safety precautions on pages 534 to 537.



1/2" Drive FLANK DRIVE® Impact Sockets



Shallow Swivel

11	6	12	A	B	D	E
1/2	IPL16C	IPDL16	3/4	15/16	2 29/32	11/32
9/16	IPL18C	—	13/16	15/16	2 29/32	11/32
5/8	IPL20C	IPDL20	7/8	15/16	2 29/32	11/32
11/16	IPL22C	—	31/32	1 3/16	3 1/16	13/32
3/4	IPL24C	—	1 1/32	1 3/16	3 1/16	7/16
13/16	IPL26C	—	1 1/8	1 3/16	3 1/16	1/2
7/8	IPL28C	—	1 3/16	1 3/16	3 1/16	9/16
15/16	IPL30C	—	1 9/32	1 3/16	3 1/16	5/8
1	IPL32C	—	1 11/32	1 3/16	3 1/16	11/16
1 1/16	IPL34C	—	1 7/16	1 3/16	3 5/32	11/16
1 1/8	IPL36C	—	1 1/2	1 3/16	3 11/32	3/4
1 3/16	IPL38C	—	1 9/16	1 3/16	3 11/32	3/4
1 1/4	IPL40C	—	1 5/8	1 3/16	3 13/32	13/16
1 5/16	IPL42C	—	1 3/4	1 3/16	3 13/32	7/8

307IPLY 6-Point Shallow Set. IPL18C thru IPL24C plus IPL28C, IPL30C and IPL36C (7 pcs) (9/16" to 3/4", 7/8", 15/16" 1 1/8").

Shallow Swivel

12-Point IPDLM Series sockets can be used for servicing restricted access areas such as drivelines, starters and headbolts on heavy duty trucks and off road equipment.

mm	6	12	A	B	D	E
10	IPLM10C	—	15.6	23.8	73.7	9.7
11	IPLM11C	—	17.8	23.8	73.7	9.7
12	IPLM12C	IPDLM12	18.9	23.8	73.7	9.7
13	IPLM13C	—	19.7	23.8	73.7	8.6
14	IPLM14C	—	21.3	23.8	73.7	8.6
15	IPLM15C	—	22.6	23.8	73.7	8.6
16	IPLM16C	IPDLM16A	24.1	30.2	77.8	10.4
17	IPLM17C	IPDLM17A	25.6	30.2	77.7	10.4
18	IPLM18C	IPDLM18A	26.7	30.2	77.7	10.4
19	IPLM19C	—	28.3	30.2	77.7	11.2
21	IPLM21C	—	31.5	30.2	77.7	12.7
22	IPLM22C	—	33.1	30.2	77.8	14.2
24	IPLM24C	—	34.8	30.2	81.0	15.0

307IPLMY Metric 6-Point Shallow Set. IPLM14C, IPLM15C, IPLM17C thru IPL21C plus IPLM24C (7 pcs) (14, 15, 17 to 21mm, 24mm).



SIP16A

RELATED ITEMS

Impact Wrenches (Air), pgs 248, 249
Impact Wrenches (Cordless), pg 270
Ratchets (Air), pg 252



IPSM21

Deep Swivel

11	6	A	B	D	E
9/16	SIP18A	13/16	1 3/16	3 13/16	11/32
3/4	SIP24A	1 1/32	1 3/16	4 1/4	7/16

Semi Deep Swivel

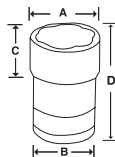
mm	6
21	IPSM21

IPSM21 Metric Semi Deep Impact Swivel Socket. Designed for GM and Ford upper control arm bolts. Welded pivot pin reinforces socket wall and allows full 30 degrees of uninterrupted smooth action for the most efficient power transfer at any angle.

Impact Sockets / Special Purpose



TTWY281A



Shallow Twist

Quickly and easily remove damaged or rounded nuts and bolts. Simply place socket on fastener and turn with 1/2" drive handle or impact gun. Grip on fastener tightens as more torque is applied. No hammering required to install socket over fastener. Use on fasteners up to 1". Applications include oil pan drain plugs, exhaust manifold nuts, studs, pipe nipples and corroded marine fasteners.

11	A	B	C	D
3/4	TTWY241A	1 1/32	1	1 5/8
13/16	TTWY261A	1 1/8	1	1 5/8
7/8	TTWY281A	1 3/16	1 1/16	1 5/8
15/16	TTWY301A	1 1/4	1 3/16	1 5/8
1	TTWY321A	1 5/16	1 1/4	1 5/8

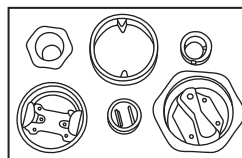
305TTWYA Shallow Twist Set. TTWY241A thru TTWY321A (5 pcs) (3/4" to 1").

Shackle Pin Sockets

Designed with an oval configuration to service shackle pins on International Harvester and Kenworth semi trucks.
SPS10 41/64" x 1 3/32". 1 3/4" long.
SPS11 21/32" x 1 17/32". 1 3/4" long



SPS10



A172A

Drum Plug Socket

A172A One socket removes virtually all screw in drum plugs or caps large or small. Spring loaded inner wrench handles smaller plugs and recesses automatically when removing large plugs. Use with a 1/2" drive ratchet or impact wrench.

Impact Accessories **1/2" Drive**



PIT160



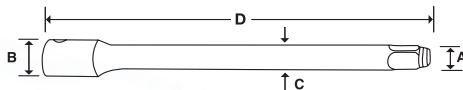
PIT3120EB

Impact Driver

PIT160 This 1/2" drive unit delivers cam action impact when struck with a hammer. U.S. Fed. Spec. GGG-W-641E.
PIT3120EB Impact Driver Set. PIT160 Impact Driver plus sockets and socket drivers (12 pcs) in KRA142 Metal Box.

Includes:

PIT160	Impact Driver	SA20E	5/8" Hex head Driver
A26A	Drag Link Socket	SP32E	#3 PHILLIPS® Driver
SA10E	5/16" Hex Head Driver	SP42E	#3 PHILLIPS® Driver
SA12E	3/8" Hex Head Driver	SW28E	7/16" x .050" Socket Driver
SA14E	7/16" Hex Head Driver	SW32E	1/2" x .075" Socket Driver
SA16E	1/2" Hex Head Driver	KRA142	Metal Box
SA18E	9/16" Hex Head Driver		



IMX52

Extensions (Snap Ring Retention)



	A	B
IMX32B	5/8	3
IMX52	21/32	5 3/32
IMX112	21/32	11 1/4

304IMX Impact Extension Set. Includes IMX32B, IMX52 and IMX112 Extensions (3", 5", 12") plus IP80D Universal Joint (4 pcs).



IMXA42

Extension Adaptor

	A	B	C	D
IMXA42	3/8	1/2	1/2	4



IMXL52



303IMXL

Locking Extensions

Ideal for use on transmission bellhousing bolts, transaxle and suspension service. Pull back collar for fast and easy attachment and removal of sockets. Knurled release collar also provides for easy one hand operation. Single body construction for maximum strength. Locking mechanism specifically designed for impact use. Female drive end recessed to accommodate newer style impact guns.



	A	B
IMXL32	5/8	3 1/2
IMXL52	5/8	5
IMXL102	5/8	10
IMXL182	5/8	18
IMXL242	5/8	24
IMXL312	5/8	31

303IMXL Locking Impact Extension Set. IMXL32, IMXL52 and IMXL102 (3 pcs) (3 1/2", 5", 10").

303AIMXL Locking Impact Extension Set. IMXL182, IMXL242 and IMXL312 (3 pcs) (18", 24" and 31").



IMSFXL18

Locking Extension Adaptors

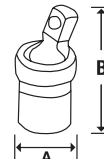
Quick release locking sleeve at the 3/8" drive end provides a secure connection plus easy socket removal.



	A	B	C	D
IMSFXL18	3/8	1/2	0.645	18 (457.2)
IMSFXL24	3/8	1/2	0.645	24 (609.6)
IMSFXL33	3/8	1/2	0.645	33 (838.2)



IP80D



IP800

Universal Joint



	Socket Attachment	A	B
IP800	Ball Type	1 1/4	2 3/4
IP80D	Pin Type	1 1/4	2 3/4



WARNING

- Do not hold swivel joint tools during use.
- Read additional safety precautions on pages 534 to 537.



1/2" Drive General Service Sets



BLPGSS1233 General Service Set

Set Components:

- 15 Fractional (3/8"-1 1/4") and 12 Metric (12-24mm) Standard Sockets
- One Breaker Bar
- One Universal Joint
- One Quick Release Ratchet
- Three Extensions (3", 6" and 10")



BLPGSS1233

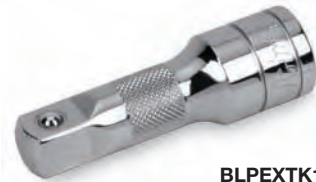
Ratchets, Handles and Accessories



BPRSR940







BPR703



BLPEXTK123



Ratchets

					A	B	C
BPRSR940	Quick Release	Standard	40	9°	2 ³ / ₃₂	1 2 ³ / ₃₂	9 7/ ₈

Features quick release button for rapid socket/accessory changes, even with greasy or oily hands. Contoured handle for comfort and control. Chrome finish for easy clean up. All ratchets in series meet or exceed ANSI B107-10M-1996 specifications. Repair kit is RKRBPBPRSR940.

BPR703 Quick Release Ratchet Set. 1/4" drive BPRTR936, 3/8" drive BPRFR938 and 1/2" drive BPRSR940 Ratchets (3 pcs).

Knurled Extensions

Stock Number	Length, inches
BLPEXTK123	3
BLPEXTK126	6
BLPEXTK1210	10



SXLBP6

303SXLBP



BLPEXTL1212

BLPLLEXT303



Locking Extensions, Knurled

	Length, inches
SXLBP3	3
SXLBP6	6
SXLBP10	10

303SXLBP Locking Extension Set. SXLBP3, SXLBP6 and SXLBP10 (3 pcs) (3", 6" and 10").



Extra Long Locking Extensions

Stock Number	Length, inches
BLPEXTL1212	12
BLPEXTL1218	18
BLPEXTL1224	24

BLPLLEXT303 Extra Long Locking Extension Set. Includes BLPEXTL1212, BLPEXTL1218 and BLPEXTL1224 (12", 18" and 24") (3 pcs).

Ratchets, Handles and Accessories **1/2" Drive**



Turbo T-Handle

Stock No.	Description	Handle Type
S13TURBO	1/2" square drive	Turbo T-Handle



S13TURBO



BLPBB1215

BLPBB1224



Breaker Bar

Stock Number	Length, inches
BLPBB1215	15

BLPBB1224 Breaker Bar. Unique telescoping design extends from 12" to 24" for use in many different applications. Easily extends and retracts by the push of a button. Provides excellent leverage advantage. Lifetime warranty.



Universal Joint

Stock Number	Length, inches
BLPUJ12	2 3/4



BLPUJ12

Sockets



BLPS1234

Standard, inches

Size, inches	Stock No.	Length, inches
3/8	BLPS1238	1 1/2
7/16	BLPS12716	1 1/2
1/2	BLPS1212	1 1/2
9/16	BLPS12916	1 1/2
5/8	BLPS1258	1 1/2
11/16	BLPS121116	1 1/2
3/4	BLPS1234	1 1/2
13/16	BLPS121316	1 1/2
7/8	BLPS1278	1 1/2
15/16	BLPS121516	1 9/16
1	BLPS121	1 9/16
1 1/16	BLPSB121116	1 9/16
1 1/8	BLPSB12118	1 3/4
1 3/16	BLPSB121316	1 3/4
1 1/4	BLPSB12114	1 3/4



BLPSM1216

Standard, mm

Size, mm	Stock No.	Length, mm
12	BLPSM1212	38.1
13	BLPSM1213	38.1
14	BLPSM1214	38.1
15	BLPSM1215	38.1
16	BLPSM1216	38.1
17	BLPSM1217	38.1
18	BLPSM1218	38.1
19	BLPSM1219	38.1
20	BLPSM1220	38.1
21	BLPSM1221	38.1
22	BLPSM1222	38.1
24	BLPSM1224	38.1



WARNING

- Do not hold swivel joint tools during use.
- Read additional safety precautions on pages 534 to 537.



3/4" Drive General Service Sets



434HDB

434HDB 12-Point General Service (Tools with Metal Box).

26 Tools Include:

12-Point Shallow Sockets:

LDH242	3/4"	LDH402	1 1/4"	LDH582	1 13/16"
LDH262	13/16"	LDH422A	1 5/8"	LDH602	1 7/8"
LDH282	7/8"	LDH442	1 3/8"	LDH642	2"
LDH302	15/16"	LDH462	1 7/16"	LDH662	2 1/16"
LDH312	31/32"	LDH482	1 1/2"	LDH682	2 1/8"
LDH322	1"	LDH502	1 9/16"	LDH702	2 3/16"
LDH342	1 1/16"	LDH522	1 5/8"	LDH722	2 1/4"
LDH362	1 1/8"	LDH542	1 11/16"	LDH762	2 3/8"
LDH382	1 3/16"	LDH562	1 3/4"		

also includes:

L32	3" Extension	L82A	Universal Joint
L62	8" Extension	L8112A	Breaker Bar Head
L122	16" Extension	L672B	Ratchet Adaptor
L52B	Sliding Head	L872H	19 1/4" Handle
L872	Ratchet Head	KRA226B	Metal Box



414AHD

414AHD 12-Point General Service (Tools with Storage Tray)

12 Tools Include:

12-Point Shallow Sockets:

LDH342	1 1/16"	LDH462	1 7/16"
LDH362	1 1/8"	LDH482	1 1/2"
LDH402	1 1/4"	LDH522	1 5/8"
LDH422A	1 5/16"	LDH562	1 3/4"
LDH442	1 3/8"	LDH602	1 7/8"

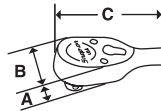
also includes:

L62	8" Extension
L122	16" Extension
L872	Ratchet Head
L872RJ	19 1/4" Handle
L8112A	Breaker Bar Head

Ratchet Heads and Handles



L872



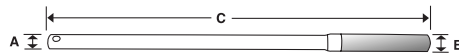
L872RM



L872RJ



L872H



Ratchet Heads

		Sealed	32	11°	A	B	C	
L872	GL872				1 1/4	2 1/2	5 15/16	RKRQC4

Ratchet Handles

		A	B	C
L872H	Plain w/locking Button	13/16	15/16	19 1/4
L872RM	Knurled	15/16		36
L872RJ	Knurled	15/16		19 1/4

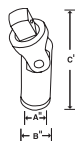
Head and Handle Combinations

	Heads using 13/16" (small) diameter handle holes	Heads using 15/16" (large) diameter handle holes
	L52B Sliding-T	L872 Ratchet Head L8112A Breaker Bar
Short 19 1/4" Handle (Lock Button Both Ends)	L872H	
Short 19 1/4" Handle (Lock Button End/Knurled End)	—	L872RJ L872RJ
Long 36" Handle (Lock Button End/Knurled End)	—	L872RM L872RM

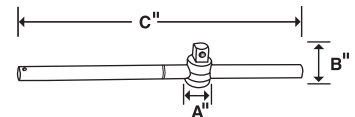
Accessories



L8112A



L52B



Sliding T-Handle Head

Designed for heavier applications. Can be used as a T-handle or as an offset wrench. Spring and friction ball holds head in position.

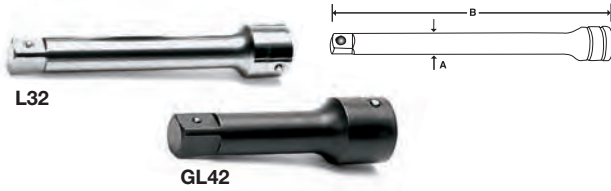
Breaker Bar Head

	A	B	C
L8112A	15/16	1 9/16	3 11/16

	A	B	C
L52B	1 1/2	2 5/16	19 1/4

Use L52B with L872H.

Accessories 3/4" Drive



Extensions - Lock Button

	A	B
L32	15/16	3
L42	15/16	5
L62	15/16	8
L122	15/16	16



Universal Joint

	A	B
L82A	1 9/16	3 7/8



Ratchet Adaptor

	A	B	C	
L672B	44	8°	3/4	2 1/2



Drag Link Sockets

	B x A	A	B	C
GLD138	13/64 x 1 3/8	1 3/8	13/64	2 3/16
GLD139	1/4 x 1 11/16	1 11/16	1/4	2 3/16



Hex Socket Drivers

	A	B
LAW120E	3 3/4	LAW120E2
LAW124E	4 3/8	LAW124E2



Adaptors

	A	B	C	D
GLA12B	1/2	3/4	1 1/8	1 7/8
GLAS1E	3/4	1/2	1 7/16	2 7/16
GLA72A	3/4	1	1 7/16	2 5/8
GLA124A	1	3/4	1 13/16	2 3/4

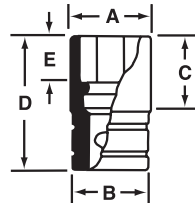
ASME/ANSI B107.10M-1996

FLANK DRIVE® Sockets

Shallow

	A	B	C	D	E	
3/4	LDH242	1 1/8	1 7/16	1 1/4	2	15/32
13/16	LDH262	1 7/32	1 7/16	1 1/4	2	11/16
7/8	LDH282	1 5/16	1 7/16	1 1/4	2	11/16
15/16	LDH302	1 3/8	1 7/16	1 1/4	2	23/32
31/32	LDH312	1 13/32	1 7/16	1 1/4	2	23/32
1	LDH322	1 15/32	1 1/2	1 5/16	2 1/16	3/4
1 1/16	LDH342	1 9/16	1 1/2	1 3/8	2 1/8	3/4
1 1/8	LDH362	1 5/8	1 1/2	1 7/16	2 3/16	13/16
1 3/16	LDH382	1 11/16	1 1/2	1 1/2	2 1/4	7/8
1 1/4	LDH402	1 3/4	1 1/2	1 1/2	2 1/4	15/16
1 5/16	LDH422A	1 7/8	1 5/8	1 9/16	2 5/16	7/8
1 3/8	LDH442	1 15/16	1 5/8	1 9/16	2 5/16	7/8
1 7/16	LDH462	2	1 5/8	1 5/8	2 3/8	15/16
1 1/2	LDH482	2 1/8	1 5/8	1 11/16	2 1/2	1 1/16
1 9/16	LDH502	2 3/16	1 3/4	1 7/8	2 5/8	1 5/32
1 5/8	LDH522	2 1/4	1 3/4	1 7/8	2 5/8	1 5/32
1 11/16	LDH542	2 3/8	1 3/4	2	2 3/4	1 3/16
1 3/4	LDH562	2 7/16	1 3/4	2	2 3/4	1 3/16
1 13/16	LDH582	2 1/2	1 3/4	2 1/8	2 7/8	1 1/4
1 7/8	LDH602	2 9/16	1 3/4	2 1/4	3	1 5/16
2	LDH642	2 3/4	1 3/4	2 3/8	3 1/8	1 3/8
2 1/16	LDH662	2 15/16	1 3/4	2 3/8	3 1/8	1 3/8
2 1/8	LDH682	2 15/16	1 3/4	2 1/2	3 1/4	1 7/16
2 3/16	LDH702	2 15/16	1 3/4	2 1/2	3 1/4	1 1/2
2 1/4	LDH722	3 1/8	1 3/4	2 5/8	3 3/8	1 1/2
2 3/8	LDH762	3 1/4	1 3/4	2 7/8	3 5/8	1 3/4

ASME/ANSI B107.1-1993



LDH482



WARNING

- Frequently inspect, clean, and lubricate all non-sealed ratchet mechanisms with light oil.
- Do not replace worn parts individually; use entire contents of the service kit.
- Read additional safety precautions on pages 534 to 537.



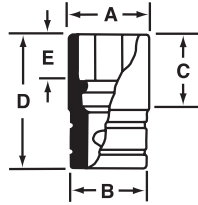
3/4" Drive FLANK DRIVE® Sockets



LDHM412



LS342



Shallow

mm	12	A	B	C	D	E
22	LDHM222	31.1	34.6	30.2	50.8	17.1
24	LDHM242	33.4	34.6	31.8	50.8	17.9
27	LDHM272	37.3	39.5	31.8	54.0	19.9
30	LDHM302	41.0	39.8	34.0	57.2	21.8
36	LDHM362	49.3	41.2	35.1	58.7	22.1
41	LDHM412	55.1	44.5	42.9	66.5	26.7

Deep

mm	6	A	B	C	D	E
1 1/16	LS342	1 9/16	1 1/2	2 3/4	3 1/2	1

FLANK DRIVE® Impact Sockets



IM402



IM302A



IMM302

Shallow

mm	6	12	A	B	C	D	E
9/16	IM182A	—	1	1 5/8	1	1 3/4	7/16
5/8	IM202A	IMD202A*	1 3/32	1 5/8	1	1 3/4	1/2
11/16	IM222A	—	1 5/32	1 5/8	1	1 3/4	9/16
3/4	IM242A	IMD242A	1 1/4	1 5/8	1	1 3/4	9/16
13/16	IM262A	—	1 3/8	1 5/8	1 1/8	1 7/8	5/8
7/8	IM282A	—	1 1/2	1 5/8	1 1/8	1 7/8	5/8
15/16	IM302A	IMD302A*	1 9/16	1 5/8	1 1/8	1 7/8	3/4
1	IM322A	IMD322A*	1 5/8	1 5/8	1 1/4	2	3/4
1 1/16	IM342A	—	1 11/16	1 5/8	1 1/4	2	3/4
1 1/8	IM362A	—	1 7/8	1 5/8	1 3/8	2 1/8	3/4
1 3/16	IM382	—	1 7/8	1 5/8	1 5/16	2 1/8	3/4
1 1/4	IM402	—	2	1 3/4	1 3/8	2 1/8	13/16
1 5/16	IM422	—	2 1/8	1 3/4	1 1/2	2 1/4	7/8
1 3/8	IM442	—	2 1/8	1 3/4	1 1/2	2 1/4	7/8
1 7/16	IM462	—	2 1/4	1 3/4	1 1/2	2 1/4	7/8
1 1/2	IM482	—	2 1/4	1 3/4	1 1/2	2 1/4	15/16
1 9/16	IM502	—	2 7/16	1 3/4	1 9/16	2 3/8	15/16
1 5/8	IM522	—	2 7/16	1 3/4	1 5/8	2 3/8	7/8
1 11/16	IM542	—	2 1/2	1 3/4	1 13/16	2 9/16	1
1 3/4	IM562	—	2 1/2	1 3/4	1 13/16	2 9/16	1
1 13/16	IM582	—	2 5/8	1 3/4	1 5/8	2 5/8	1 1/4
1 7/8	IM602	—	2 5/8	1 3/4	1 3/4	2 3/4	1 1/8
2	IM642A	—	2 7/8	1 3/4	1 15/16	2 7/8	1 1/8
2 1/16	IM662A	—	3	1 3/4	1 7/8	2 7/8	1 3/16
2 3/16	IM702A	—	3 1/4	1 3/4	2 3/16	3 3/16	1 5/16
2 1/4	IM722A	—	3 1/4	1 3/4	2 3/16	3 3/16	1 3/8
2 3/8	IM762A	—	3 1/2	1 3/4	2 3/8	3 1/2	1 7/16

* Applications include repair of heavy duty trucks and off-road equipment, most diesel engines including Caterpillar and Cummins plus head bolts and bearing cap bolts.

IMD242A Applications:

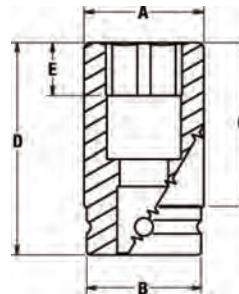
- Most Caterpillar head bolts
- Detroit Diesel main bearing cap bolts
- K19 Cummins head bolts

IMFD242 Applications:

- Most Caterpillar head bolts
- Detroit Diesel main bearing cap bolts
- Cummins K19 vibration dampeners
- Clearance on certain head bolts requires the thin walled socket. On some of these sockets there is a pin that holds the socket onto the gun. This pin will hit the cam if the technician is not careful. These sockets also work on the cam gear for the same engines

Shallow

mm	6	A	B	C	D	E
17	IMM172A	29.4	41.3	25.4	44.5	14.3
19	IMM192A	31.8	41.1	19.1	44.5	14.2
20	IMM202A	32.5	41.3	25.4	44.5	14.3
22	IMM222A	36.5	41.3	28.6	47.6	15.8
24	IMM242A	39.7	41.3	28.6	47.6	15.8
27	IMM272A	42.9	41.3	27.2	50.8	17.5
30	IMM302	47.0	41.3	24.9	53.3	19.1
31	IMM312	49.2	41.3	30.2	53.8	19.1
32	IMM322	50.8	44.5	30.2	53.8	20.6
34	IMM342	50.8	44.5	30.2	53.8	22.4
35	IMM352	54.0	44.5	33.5	57.2	22.4
36	IMM362	54.0	44.5	31.8	57.2	22.4
38	IMM382	57.2	44.5	33.5	57.2	23.9
40	IMM402	60.3	44.5	41.3	66.5	28.4
46	IMM462	65.9	44.5	42.9	66.5	29.0



IMFD242

Shallow Thin Wall

mm	12	A	B	C	D	E
3/4	IMFD242	1 1/8	1 1/2	1 3/8	2 1/8	5/8

Larger sizes available on special order.

FLANK DRIVE® Impact Sockets 3/4" Drive

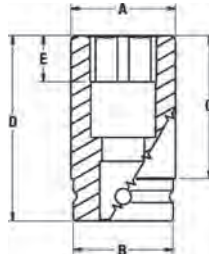
Deep

Hex Size	Part No.	A	B	C	D	E
3/4	SIM242	1 1/4	1 5/8	2	3	9/16
13/16	SIM262	1 3/8	1 5/8	2	3	5/8
7/8	SIM282	1 1/2	1 5/8	2	3	5/8
15/16	SIM302	1 5/8	1 5/8	2	3	5/8
1	SIM322	1 5/8	1 5/8	2	3	11/16
1 1/16	SIM342	1 3/4	1 5/8	2	3	11/16
1 1/8	SIM362	1 3/4	1 5/8	2	3	3/4
1 3/8	SIM382	2	1 3/4	2 1/4	3 1/4	3/4
1 1/4	SIM402	2	1 3/4	2 1/4	3 1/4	7/8
1 5/16	SIM422	2 1/8	1 3/4	2 9/16	3 1/4	7/8
1 3/8	SIM442	2 1/8	1 3/4	2 1/4	3 1/4	7/8
1 7/16	SIM462	2 3/16	1 3/4	2 1/2	3 1/2	7/8
1 1/2	SIM482	2 1/4	1 3/4	2 1/2	3 1/2	15/16
1 9/16	SIM502	2 5/16	1 3/4	2 1/2	3 1/2	15/16
1 5/8	SIM522	2 7/16	1 3/4	2 1/2	3 1/2	15/16
1 11/16	SIM542	2 1/2	1 3/4	2 1/2	3 1/2	1
1 3/4	SIM562	2 1/2	1 3/4	2 1/2	3 1/2	1
1 13/16	SIM582	2 5/8	1 3/4	2 3/4	3 3/4	1 1/16
1 7/8	SIM602	2 11/16	1 3/4	2 3/4	3 3/4	1 1/8
2	SIM642A	2 13/16	1 3/4	2 3/4	3 3/4	1 1/8

Larger sizes available on special order.



SIM402



SIMM302

Deep

mm	Part No.	A	B	C	D	E
30	SIMM302	50.8	44.5	57.4	81.0	19.1
32	SIMM322	49.2	44.5	58.9	82.6	22.4
33	SIMM332	50.8	44.5	58.9	82.6	22.4
35	SIMM352	50.8	44.5	58.9	82.6	22.4
36	SIMM362	54.0	44.5	65.3	88.9	22.4
38	SIMM382	57.2	44.5	65.3	88.9	23.9
41	SIMM412*	55.1	44.5	76.2	100.1	26.7

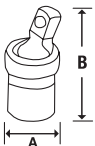
*Applications include usage on Stud piloted, Budd style wheels.

Heavy Duty Truck Wheel Lug Sockets

HDLUGSET2 Heavy Duty Lug Socket Set. This set covers approximately 95% of domestic heavy duty truck applications. Set includes the following sockets: SIM342, SIM482, SIMM332, SIMM382, SIMM412 (all on page 165), DW402C (page 472), plus BW626A, BWD482 and BWD412 (all on page 474) in PAKPB063 storage case. All sockets feature the FLANK DRIVE® wrenching configuration. Special alloy steel combines strength and durability. All sockets 3/4" square drive.

Stock No.	Size	Description	Applications
SIM342	1 3/16" Hex	6-point, Deep	Various
DW402C	1 1/4" Hex	6-point, Extra Deep, Thin Wall	Heavy Duty Dayton style trailers, spoke wheel type
SIM482	1 1/2" Hex	6-point, Deep	Stud piloted, Budd style wheels
SIMM332	33mm Hex	6-point, Deep	General hub piloted wheels
SIMM382	38mm Hex	6-point, Deep	Import trucks
SIMM412	41mm Hex	6-point, Deep	Stud piloted, Budd style wheels
BW626A	13/16" Square	—	Inner nuts on Stud piloted, Budd style wheels
BWD482	1 1/2" Hex - 13/16" Square	Dual Opening (6-pt. Hex)	Stud piloted, Budd style wheels
BWDM412	41mm Hex - 21mm Square	Dual Opening (6-pt. Hex)	Stud Piloted, Budd style wheels

Impact Accessories



IP82

Swivel Ball Universal Joint

Part No.	A	B
IP82	1 3/4	3 5/32



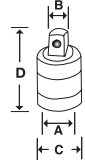
IM243R



IM243P



IM124B



Adaptors

Part No.	A	B	C	D
IM72	3/4	1 with Pin Hole	1 5/8	2 9/16
IM124B	1	3/4 with Pin Hole	2 3/8	2 13/16

3/4" Locking Rings and Pins

For use on IM, IMM, SIM and SIMM sockets on this page.

Stock No.	Drive Size	Description	Use with
IM182R	3/4"	Rubber Locking Ring	All 3/4" Drive Sockets/Accessories
IMR2	3/4"	Socket Retainer	All 3/4" Drive Sockets/Accessories

Use the following for the IM124B Adaptor:

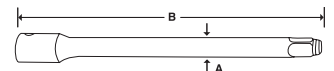
IM243R	1"	Locking Ring	1" Drive Sockets/Accessories Up to 13/8"
IM243P	1"	Steel Locking Pin	1" Drive Sockets/Accessories Up to 1 3/8"

Extensions

Part No.	A	B
IM132A	1	3
IM62B	1	7
IM92B	1	10
IM122B	1	13



IM122A



WARNING Read additional safety precautions on pages 534 to 537.



1" Drive Ratchet Heads and Handles



Ratchet Head

		Sealed	30	12°	A	B	C	
L873	GL873				1 1/2	3 1/8	7 7/8	RKRQC5



Handle

Plain handle with locking buttons at both ends for use on 1" drive Ratchet Heads, Breaker Bar Heads and Sliding T-Handles.

	A	C
L53HB	1 1/8	29

Handle Extension

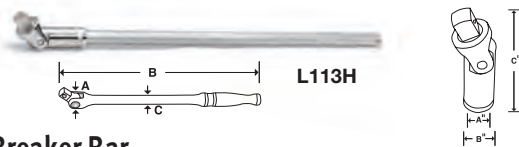
Knurled grip extension handle that attaches to the L53HB Handle for extra leverage. Can only be used with L53HB Handle. L853HA1 Handle will not connect directly to L873 Ratchet Head.

	A	C
L853HA1	1 3/8	36

Head and Handle Combinations

Stock No.	Description	Required Handle	Optional Handle Extension
L873	Ratchet Head	L53HB	L853HA1
L113H	Breaker Bar	L53HB	-
L53A	Sliding T-handle	L53HB	-

Socket and Ratchet Accessories



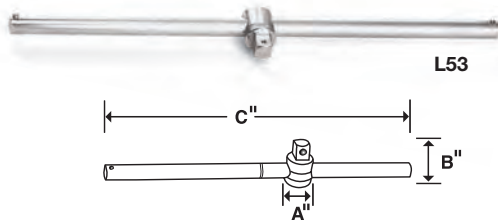
Breaker Bar

Complete Tool		Head Only		Handle	Stock No.
	B		B	C	L53HB
L113H	32 5/32	L113	2 1/8	4 29/32	



Extension - Locking Button

	A	B
L63	1 1/4	8



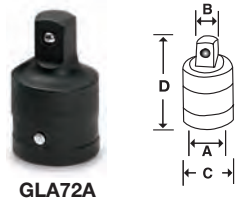
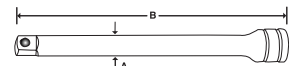
Sliding T-Handle

Complete Tool		Sliding Head Only	Handle
	C	Stock No.	Stock No.
L53	29	L53A	2
			L53HB

Adaptors

	A	B	C	D
GLA72A	3/4	1	1 7/16	2 5/8
GLA124A	1	3/4	1 13/16	2 3/4

ASME/ANSI B107.10M-1996



Hex

	A	B	C
7/8	IMA283	5 5/8	IMA283-2
1	IMA323	5 3/8	IMA323-2
			ME2C1
			ME2C1

Heavy Duty Truck Wheel Lug Sockets

HDLUGSET1 Heavy Duty Lug Socket Set. This set covers approximately 95% of domestic heavy duty truck applications. Set includes the following sockets: SIM383, SIM403, SIM483B, SIMM333, SIMM383 (all on page 167) plus BW726A and BWD483 (all on page 474). All sockets feature the FLANK DRIVE® wrenching configuration. Special alloy steel combines strength and durability. All sockets 1" square drive.

Stock No.	Size	Description	Applications
SIM383	1 3/16" Hex	6-point, Deep	Various
SIM403	1 1/4" Hex	6-point, Deep	Heavy duty Dayton style trailers, spoke wheel type
SIM483B	1 1/2" Hex	6-point, Deep	Stud piloted, Budd style wheels
SIMM333	33mm Hex	6-point, Deep	General hub piloted wheels
SIMM383	38mm Hex	6-point, Deep	Import trucks
BW726A	1 3/16" Square	—	Inner nut on Stud piloted, Budd style wheels
BWD483A	1 1/2" Hex - 13/16" Square	Dual Opening (6-pt. Hex)	Stud piloted, Budd style wheels

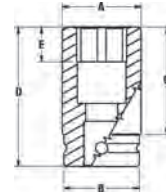
FLANK DRIVE® Impact Sockets 1" Drive

Shallow

II	6	A	B	C	D	E
1 3/8	IM443	2 1/8	2 1/8	1 15/16	2 1/2	7/8
1 7/16	IM463	2 1/4	2 1/4	1 7/16	2 1/2	15/16
1 1/2	IM483B	2 3/8	2 1/4	1 7/16	2 5/8	15/16
1 9/16	IM503A	2 3/8	2 1/4	1 7/16	2 5/8	15/16
1 5/8	IM523A	2 3/8	2 1/4	1 5/8	2 3/4	1 1/16
1 11/16	IM543	2 9/16	2 3/8	1 5/8	2 3/4	1 1/16
1 3/4	IM563	2 5/8	2 3/8	1 23/32	2 7/8	1 5/32
1 13/16	IM583	2 3/4	2 3/8	1 23/32	2 15/16	1 3/16
1 7/8	IM603	2 3/4	2 3/8	1 23/32	2 15/16	1 3/16
1 15/16	IM623	2 3/4	2 3/8	1 23/32	2 15/16	1 3/16
2	IM643	3	2 3/8	1 31/32	3 1/8	1 9/32
2 1/16	IM663	3	2 3/8	1 31/32	3 1/8	1 9/32
2 1/8	IM683	3 1/8	2 3/8	2 3/32	3 1/4	1 9/32
2 3/16	IM703	3 1/4	2 3/8	2 5/32	3 11/32	1 7/16
2 1/4	IM723	3 1/4	2 3/8	2 5/32	3 11/32	1 7/16
2 5/16	IM743	3 3/8	2 3/8	2 5/32	3 1/2	1 1/2
2 3/8	IM763	3 1/2	2 3/8	2 5/32	3 1/2	1 1/2
2 7/16	IM783	3 1/2	2 3/8	2 5/32	3 1/2	1 1/2
2 1/2	IM803	3 1/2	2 3/8	2 1/8	3 5/8	1 5/8
2 9/16	IM823	3 5/8	2 3/8	2 1/8	3 5/8	1 5/8
2 5/8	IM843	3 3/4	2 3/8	2 5/16	3 3/4	1 5/8
2 11/16	IM863	3 3/4	2 3/8	2 15/32	3 7/8	1 13/16
2 3/4	IM883	3 3/4	2 3/8	2 21/32	3 7/8	1 13/16



IM703



SIM563

Deep

II	6	A	B	C	D	E
1 1/16	SIM343	1 13/16	2 1/8	1 13/16	3	3/4
1 1/4	SIM403	2 1/16	2 1/8	2 1/16	3 1/4	7/8
1 5/16	SIM423*	2 1/16	2 1/8	2 1/16	3 1/4	7/8
1 3/8	SIM443	2 1/16	2 1/8	2 1/16	3 1/4	7/8
1 7/16	SIM463A	2 1/4	2 1/8	2 3/32	3 1/4	29/32
1 1/2	SIM483B**	2 3/8	2 1/4	2 11/32	3 1/2	1
1 9/16	SIM503A	2 3/8	2 1/4	2 11/32	3 1/2	1
1 5/8	SIM523B	2 3/8	2 1/4	2 1/2	3 5/8	1
1 11/16	SIM543	2 1/2	2 3/8	2 7/16	3 5/8	1 1/8
1 3/4	SIM563	2 3/4	2 3/8	2 11/16	3 7/8	1 1/8
1 13/16	SIM583	2 3/4	2 3/8	2 11/16	3 7/8	1 3/16
1 7/8	SIM603	2 3/4	2 3/8	2 11/16	3 7/8	1 3/16
1 15/16	SIM623	3	2 3/8	2 15/16	4 1/8	1 1/4
2	SIM643	3	2 3/8	2 15/16	4 1/8	1 5/16

* Applications include use on heavy duty wheel lug nuts.

** Applications include use on wheel lug nuts on Stud-Piloted/Budd style wheel systems.



IM243R



IM243P

1" Drive Locking Rings and Pins

The following are required for tool use:

Stock No.	Drive Size	Description	Use with
IM483R	1" Spline	Rubber Locking Pin, use with IM243R	All Spline Drive Sockets/Accessories 1" Drive Sockets from 1 7/16" and from 35mm
IM243R	1"	Synthetic Rubber Locking Ring for IM243 to IM443, and SIM233 to SIM353	1" Drive Sockets/Accessories Up to 1 3/8" and Up to 35mm
IM243P	1"	Steel Locking Pin, use with IM243R	1" Drive Sockets/Accessories Up to 1 3/8" and Up to 35mm
IMR3	1" Spline	Socket Retainer	All Spline Drive Sockets/Accessories All 1" Drive Sockets/Accessories
IM483P	1" Spline	Steel Locking Pin	All Spline Drive Sockets/Accessories 1" Drive Sockets from 1 7/16" and from 35mm

Deep

mm	6	A	B	C	D	E
30	SIMM303	46.0	53.7	46.0	76.2	19.1
32	SIMM323	52.3	53.7	76.2	82.6	22.4
33	SIMM333*	52.3	53.7	53.3	88.6	22.4
38	SIMM383	60.3	57.2	59.7	88.9	25.4

* Applications include use on wheel lug nuts on Hub-Piloted wheel systems.



SIMM323

Shallow Crawler Track Bolt

II	6	A	B	C	D	E
3/4	IMT243	1 7/16	2 1/8	15/16	2 1/8	11/16
15/16	IMT303	1 19/32	2 1/8	15/16	2 1/8	11/16



IMT243

Shallow Single Square*

II	6	A	B	C	D	E
3/4	IM724	1 15/16	2 1/8	15/16	2 1/8	5/8
13/16	IM726	1 15/16	2 1/8	15/16	2 1/8	5/8
7/8	IM728	2 1/16	2 1/8	15/16	2 1/8	5/8
1	IM732	2 1/8	2 1/8	1 1/16	2 1/4	3/4
1 1/8	IM736	2 1/4	2 1/4	1 1/16	2 1/4	3/4

*Not FLANK DRIVE®



IM724

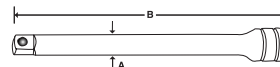
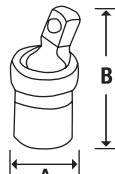
Impact Accessories

Swivel Universal Joint with Pin Hole

IP83	A	B
IP83	2 1/2	4 3/16



IP83



Extensions with Pin Hole

IM133	A	B
IM133	1	3
IM63B	1 1/8	7 1/8
IM123	1 3/8	13 1/8



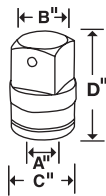
IM133

Adaptors with Pin Hole

IM72	A	B	C	D
IM72	3/4	1	1 5/8	2 9/16
IM124B	1	3/4	2 3/8	2 13/16
IM35	1	1 1/2	2 1/4	3 1/2
IM53	1 1/2	1	3 1/4	4 1/4



IM35



WARNING

- Frequently inspect, clean, and lubricate all non-sealed ratchet mechanisms with light oil.
- Do not replace worn parts individually; use entire contents of the service kit.
- Do not immerse sealed ratchet in fluids.
- Do not use chrome or industrial finish hand tools with power drivers.
- Read additional safety precautions on pages 534 to 537.

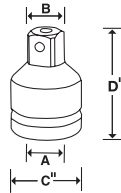
1 1/2" Drive Impact Accessories

Adaptors with Pin Hole

	A	B	C	D
IM35	1	1 1/2	2 1/4	3 1/2
IM53	1 1/2	1	3 1/4	4 1/4



IM53



IM243R



IM243P

Locking Rings and Pins for 1 1/2" Extensions, Adaptors, Impact Sockets and 2 1/2" Impact Sockets

The following are required for tool use:

Stock No.	Drive Size	Description	Use with
IM243R	1 1/2"	Synthetic Rubber Locking Ring, for IM35	1" Drive Sockets/Accessories Up to 1 3/8" and Up to 35mm
IM243P	1 1/2" Spline	Steel Locking Pin, for IM35	1" Drive Sockets/Accessories Up to 1 3/8" and Up to 35mm
IMR3	1 1/2" Spline	Socket Retainer, for IM35	All Spline Drive Sockets/Accessories All 1" Drive Sockets/ Accessories
IM445R	1 1/2"	Synthetic Rubber Locking Ring, for IM105, IM205, IM59, IP85, and "IGE Series" sockets	All 1 1/2" Drive Sockets/Accessories
IM729P	2 1/2"	Steel Locking Pin, for IM95	All 2 1/2" Drive Sockets

FLANK DRIVE® Impact Sockets

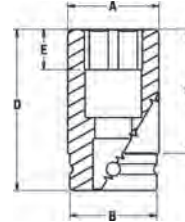
Deep

	A	B	C	D	E
SIM785	3 25/32	3 1/4	3 17/32	5 5/32	1 9/16

Larger sizes available on special order



SIM785



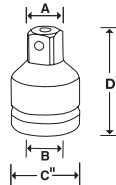
#5 Spline Drive Impact Accessories

Spline-to-Square Drive Adaptor

	A	B	C	D
IMSA3	1" Square	No. 5, 14 Tooth	2 3/8	3 3/8



IMSA3



IMR3



IM243P



IM243R

Master Ring and Pin Chart for Impact Sockets and Accessories

The following are required for tool use:

Stock No.	Drive Size	Description	Used With	See Page:
IM182R	3/4"	Rubber Locking Ring	All 3/4" Drive Sockets/Accessories	165, 168, 474
IMR2	3/4"	Socket Retainer	All 3/4" Drive Sockets/Accessories	165, 168, 474
IM243R	1"	Locking Ring, for IM243 to IM443, and SIM233 to SIMM353	1" Drive Sockets/Accessories Up to 1 3/8" and Up to 35mm	165, 167, 168, 474
IM243P	1"	Steel Locking Pin, use with IM243R	1" Drive Sockets/Accessories Up to 1 3/8" and Up to 35mm	165, 167, 168, 474
IMR3	#5 Spline	Socket Retainer	All Spline Drive Sockets/Accessories All 1" Drive Sockets/Accessories	167, 168, 474
IM483R	#5 Spline	Rubber Locking Ring, use with IM483R	All Spline Drive Sockets/Accessories 1" Drive Sockets from 1 7/16" and from 35mm	167, 168
IM483P	#5 Spline	Steel Locking Pin	All Spline Drive Sockets/Accessories 1" Drive Sockets from 1 7/16" and from 35mm	167, 168
IM445R	1 1/2"	Rubber Locking Ring	All 1 1/2" Drive Sockets/Accessories	168
IM729P	2 1/2"	Steel Locking Pin	All 2 1/2" Drive Sockets	168