

AUGER DRIVE COMPONENTS

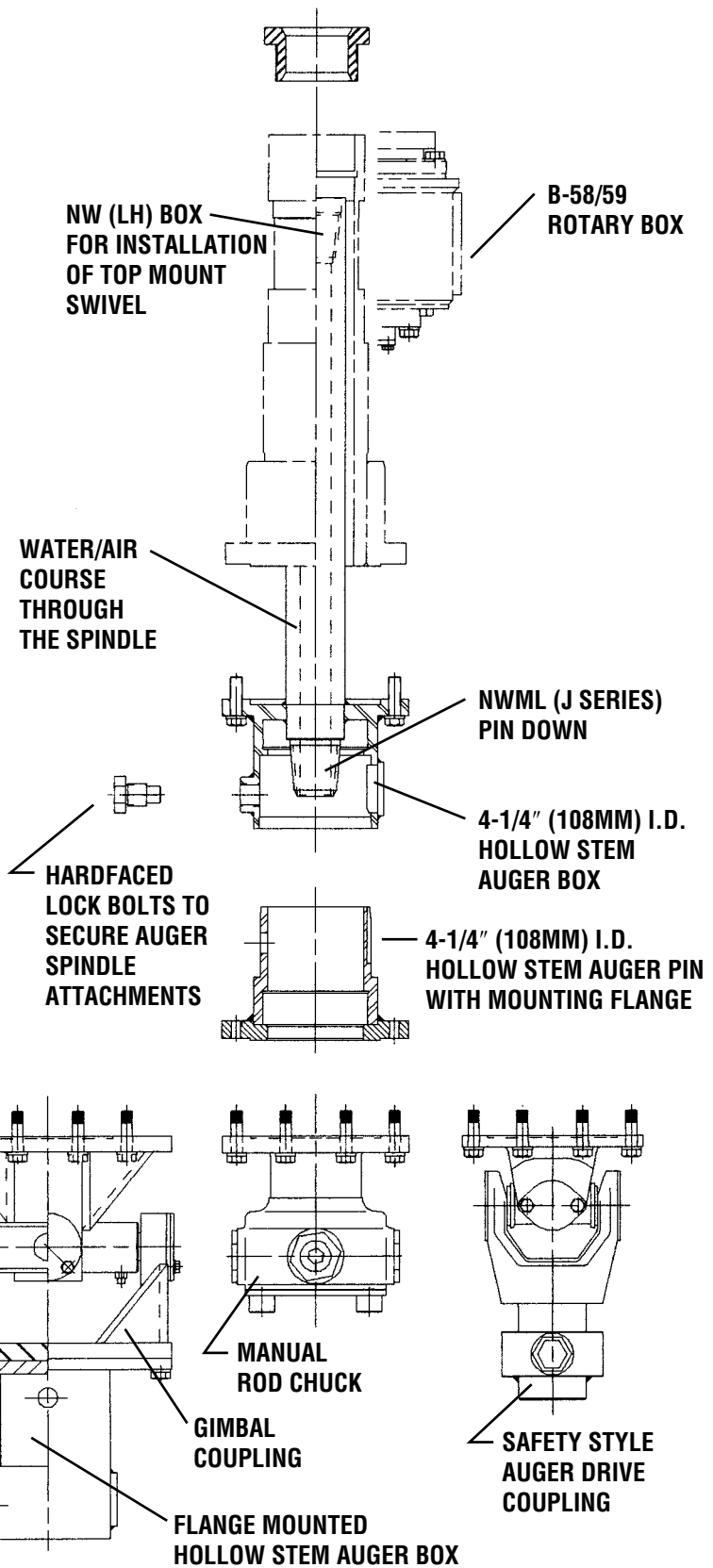
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This section covers the standard components that are required to upgrade the performance of your existing Mobile drill. Heads are equipped with open spindles. Change quickly from auger drilling to either mud/air rotary or diamond core drilling. The gimbal assemblies and universal drives are designed with the driller in mind for easy and rapid coupling to the drill string. Additional quick change adapters are available that allow for faster field changes when changing auger or hex sizes. For assistance in selecting the correct combinations, please contact the factory for further information.

QUICK CHANGE ADAPTER WITH QUILL ROD & BUSHING

A quick change coupling using a 4-1/4" (108mm) TRI-LOK box and pin combination with drill rod through the spindle for instant change between auger drilling and rotary/core drilling. The 4-1/4" (108mm) TRI-LOK box coupling is connected to the drill spindle through a multi-bolt flange. The 4-1/4" (108mm) TRI-LOK pin is connected to the safety auger coupling or the gimbal coupling. A drill rod through the spindle with a bushing allows for rotary drilling with the use of a top mount water swivel. Available in the following combinations: NWML rod pin bottom and NW rod box (L.H.) top or NWML rod pin bottom and NWML rod box top.

Note: Order the auger couplings separately. Specifications on page 3-5.



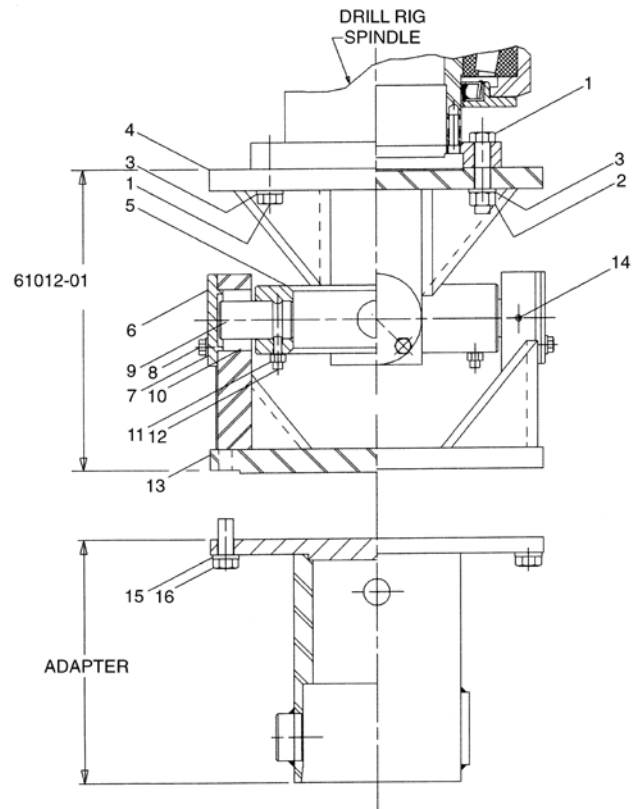
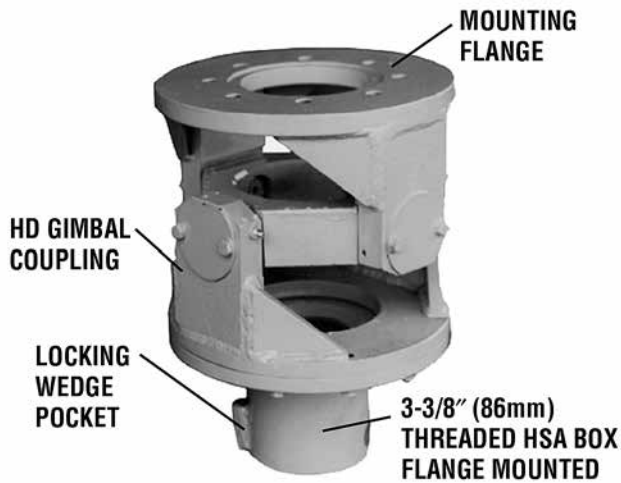
Key: * Designates weights less than 1 lb (.5kg)

† Consult Factory

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AUGER DRIVE COMPONENTS

3 MOBILE HD GIMBAL COUPLING



Mobile's Gimbal Coupling is an open center auger coupling that can be used with Mobile's exclusive in-hole sampling hammer. The coupling connects hollow stem augers to drill rigs with open spindles and permits continuous access through the spindle and augers to the bottom of the hole. Available only for the MOBILE DRILL models listed below, gimbal couplings are used with the drill model and hollow stem auger noted in parentheses. **Auger sizes are identified by auger I.D.**

ADAPTER: THREADED AUGER

Description	Lb/Kg	Part No.
2-1/2" HSA (63.5mm).....	19 (8.6).....	150109
3-3/8" HSA (86mm).....	20 (9.1).....	140635
4" HSA (102mm).....	21 (9.5).....	140840
6" HSA (152mm).....	24 (10.9).....	150191

ADAPTER: TRI-LOCK AUGER (3-KEY)

Description	Lb/Kg	Part No.
3-1/4" HSA (83mm).....	19 (8.6).....	213296
4-1/4" HSA (108mm).....	27 (12.2).....	150480
6-5/8" HSA (168mm).....	35 (15.9).....	150453
8-1/4" HSA (210mm).....	40 (18.1).....	216561
10-1/4" HSA (261mm).....	63 (28.6).....	150619
12-1/4" HSA (311mm).....	86 (39.1).....	217486
BLANK FLANGE.....	24 (10.9).....	217013

ADAPTER: 2-KEY HEAVY DUTY

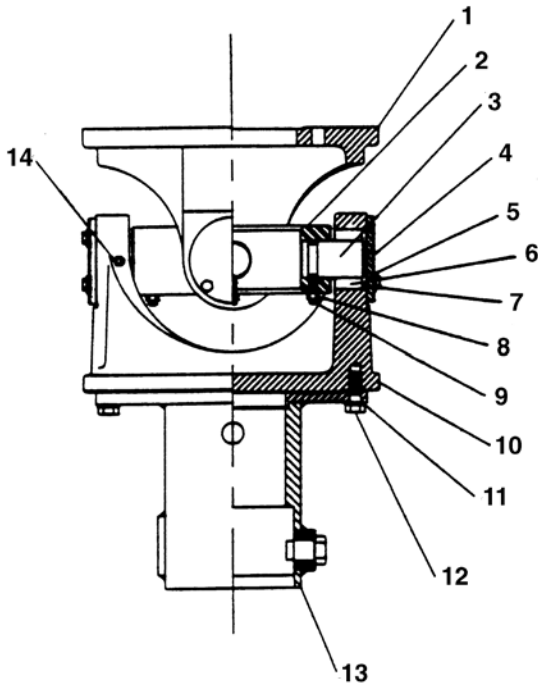
Description	Lb/Kg	Part No.
4-1/4" HSA (108mm).....	27 (12.2).....	150694
6-1/4" HSA (159mm).....	33 (15.0).....	217904

Other Adapters available on request.

COMPONENT PARTS

Ref	Description	Lb/Kg	Part No.
	Gimbal Coupling (includes items 1-16).....	75 (34).....	61012-01
1	Hex Bolt (8 Req'd for B-47HD, B-53 & B-80) ... *		3100-0067
1	Hex Bolt (8 Req'd for B-57, B-59 & B-61HDX) .. *		3100-0037
2	Hex Nut (8 Req'd for B-47HD, B-53 & B-80) ... *		3122-0008
3	Lock Washer (8 Req'd).....	*	3126-0008
4	Top Yoke.....	20 (9.1).....	052644
5	Cross.....	16 (7.3).....	140632
6	Retainer Cap (4 Req'd).....	*	140630
7	Lock Washer (8 Req'd).....	*	3126-0005
8	Hex Bolt (8 Req'd).....	*	3100-0008
9	Pin (4 Req'd).....	1 (.5).....	140633
10	Bearing (4 Req'd).....	1 (.5).....	140634
11	Hex Jam Nut (4 Req'd).....	*	3204-0005
12	Set Screw (4 Req'd).....	*	3142-0081
13	Bottom Yoke.....	22 (10).....	140631
14	Grease Fitting (4 Req'd).....	*	3129-0001
15	Lock Washer (10 Req'd).....	*	3126-0005
16	Hex Bolt (10 Req'd).....	*	3100-0008

HEAVY DUTY GIMBAL COUPLING



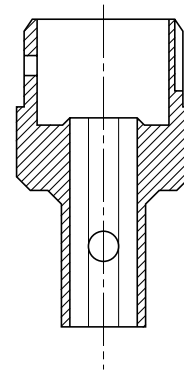
Mobile's Heavy Duty Gimbal Coupling is a heavy duty, open center auger coupling that can be used with Mobile's exclusive in-hole sampling hammer. The coupling connects hollow stem augers to drill rigs with open spindles and permits continuous access through the spindle and augers to the bottom of the hole. Available for all MOBILE drill models. **Auger sizes are identified by auger I.D.**

COMPONENT PARTS

Ref	Description	Lb/Kg	Part No.
	Gimbal Coupling (includes items 1-14)..... †		61041-01
1	Yoke, Top	†	217792-01
2	Cross..... †		217793
3	Pin..... †		217794
4	Cap, Retainer..... †		217795
5	Lockwasher, 5/16"..... †		3126-0005
6	Bearing..... †		217796
7	Bolt, Hex 5/16-18 UNC x 3/4" Lg..... †		3100-0008
8	Nut, Hex Jam 5/16-18 UNC..... †		3204-0005
9	Setscrew, Hex Socket Head..... †		3142-0091
10	Yoke, Bottom..... †		217792-02
11	Lockwasher, 1/2"..... †		3126-0008
12	Bolt, Hex 1/2-13 UNC x 1-1/2" Lg..... †		3100-0037
13	Auger Connector (4-1/4 HSA)..... †		217797
	Auger Connector (6-5/8 HSA)..... †		217798
	Auger Connector (8-1/4 HSA)..... †		217799
	Auger Connector (10-1/4 HSA)..... †		217800
	Auger Connector (12-1/4 HSA)..... †		217801
14	Fitting, Grease..... †		3129-0001

Other Adapters available on request.

GIMBAL TO HEX ADAPTER



TRI-LOK™ Shown

Gimbal to hex adapters allow using a gimbal coupling set up for threaded augers to be used to turn tools with hex drives. It consists of an auger pin up and a hex socket down. **Sizes are identified by hollow stem auger I.D. and hex size.**

HEX ADAPTER - THREADED AUGER

Description	Lb/Kg	Part No.
3-3/8" (86mm) Pin to 1-5/8" (41mm) Hex Box.... 14 (6.4).....		006828
3-3/8" (86mm) Pin to 2" (51mm) Hex Box..... 15 (6.8).....		150159-01
4" (102mm) Pin to 1-5/8" (41mm) Hex Box..... 15 (6.8).....		150160-01
4" (102mm) Pin to 2" (51mm) Hex Box..... 16 (7.3).....		150160-02

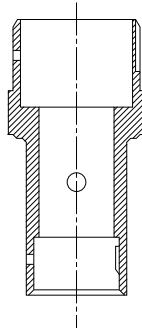
HEX ADAPTER: TRI-LOK AUGER

Description	Lb/Kg	Part No.
3-1/4" (83mm) Pin to 1-5/8" Hex Box..... 11 (5).....		150344-02
3-1/4" (83mm) Pin to 2" (51mm) Hex Box..... 12 (5.4).....		150344-01
4-1/4" (108mm) Pin to 1-5/8" (41mm) Hex Box.... 15 (6.8).....		150496-01
4-1/4" (108mm) Pin to 2" (51mm) Hex Box..... 16 (7.3).....		150496-02
6-5/8" (168mm) Pin to 1-5/8" (41mm) Hex Box... 18 (8.2).....		150456-01
6-5/8" (168mm) Pin to 2" (51mm) Hex Box..... 18 (8.2).....		150456-02

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ADAPTER: HOLLOW STEM AUGER PIN UP TO HOLLOW STEM AUGER BOX DOWN



TRI-LOK™ To TRI-LOK™ Shown

Size adapters allow the driller to quickly change auger size without having to reconfigure the gimbal coupling. It consists of a pin coupling up and various sizes of TRI-LOK or 2-key threaded auger box couplings down. **Sizes are identified by hollow stem auger I.D.**

SIZE ADAPTER: THREADED TO THREADED

Description	Lb/Kg	Part No.
4" (102mm) Pin to 3-3/8" (86mm) Box.....	30 (13.6)	150160-03

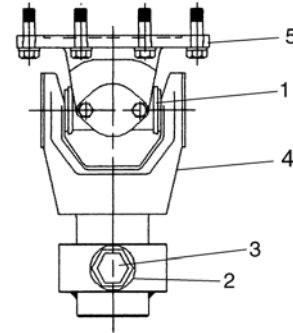
SIZE ADAPTER: THREADED TO TRI-LOK

Description	Lb/Kg	Part No.
3-3/8" (86mm) Pin to 6-5/8" (168mm) Box	30 (13.6)	150159-03

SIZE ADAPTER: TRI-LOK TO TRI-LOK

Description	Lb/Kg	Part No.
4-1/4" (108mm) Pin to 6-5/8" (168mm) Box.....	45 (20.4)	150547-02
6-5/8" (168mm) Pin to 3-1/4" (83mm) Box.....	24 (10.9)	150456-03
6-5/8" (168mm) Pin to 4-1/4" (108mm) Box.....	30 (13.6)	150456-05
6-5/8" (168mm) Pin to 8-1/4" (210mm) Box.....	40 (18.1)	150456-07
6-5/8" (168mm) Pin to 10-1/4" (260mm) Box.....	68 (30.8)	150645-04
8-1/4" (210mm) Pin to 4-1/4" (108mm) Box.....	38 (17.2)	150539-04
8-1/4" (210mm) Pin to 6-5/8" (168mm) Box.....	40 (18.1)	150539-05

AUGER COUPLING ASSEMBLIES



Coupling is connected to drill spindle through a multi-bolt flange. A universal joint is connected to the hex socket to lessen bearing wear on mis-aligned holes. A rubber sheath completely covers the countersunk connecting bolts to provide a smooth surface and enhance operator safety.

Description Part No.

1-1/8" (29mm) Hex w/fabricated collar (B-24, B-31).....	71109-15
1-5/8" (41mm) Hex w/fabricated collar (B-24, B-31)	71109-14
1-5/8" (41mm) Hex Heavy Duty w/safety collar (B-47HD, B-53, B-57, B-59, B-61HDX)	71109-11
2" (51mm) Hex Heavy Duty w/safety collar (B-47HD, B-53, B-57, B-59, B-61HDX)	71109-10

COMPONENT PARTS

Ref Description Part No.

1	Journal & bearing kit (B-24, B-31).....	210146-06
1	Journal & bearing kit (B-47HD, B-53, B-57, B-59, B-61HDX)	214541
2	Threaded bushing	150308
3	Lockbolt (for 1-1/8" (29mm) Hex).....	216808-10
3	Lockbolt.....	216808-02
4	Lower yoke for 1-1/8" (29mm) Hex for 71109-15	†
4	Lower yoke for Light Duty 1-5/8" (41mm) Hex for 71109-14	†
4	Lower yoke for Heavy Duty 1-5/8" (41mm) Hex for 71109-11	217279-02
4	Lower yoke 2" 51mm) Hex for 71109-10	217279-01
*	Neoprene boot (Use with P/Ns 71109-14, -15)	217299
*	Neoprene boot (Use with P/Ns 71109-10, -11)	217298
5	Flanged yoke (Use with P/Ns 71109-14, -15).....	217714
5	Flanged yoke (Use with P/Ns 71109-10, -11)	214542

* Not shown

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QUICK CHANGE ADAPTER WITH QUILL ROD & BUSHING

B-57 Center Rod

Assembly No.	Quick Change Size	Upper Connection	Lower Connection	Upper Adapter	Lower Adapter	Spindle Bushing
23176-21	3-1/4" HSA Pin Down	NW Rod Box (L.H.)	NWML Rod Box	216451	216455	180455-13
23182-01	3-1/4" HSA Box Down	1-1/4" NPT L.H. Box	NW Rod Pin	216523	216524	180455-13
23182-02	3-1/4" HSA Box Down	NW Rod Box (L.H.)	NWML Rod Pin	216537	216524	180455-13
23182-03	4-1/4" HSA Box Down	NW Rod Box (L.H.)	NWML Rod Pin	216555	216556	180455-13
23182-04		Replaced by 23182-01				
23182-05	3-1/4" HSA Box Down	NW Rod Box (L.H.)	NW Rod Pin	216721	216524	180455-13
23182-06	4-1/4" HSA Box Down	No Center Rod	No Center Rod	217074	216556	

B-5700/B-58/B-59/B-5900/B-61HDX Center Rod

Assembly No.	Quick Change Size	Upper Connection	Lower Connection	Upper Adapter	Lower Adapter	Spindle Bushing
23182-06	4-1/4" HSA Box Down	No Center Rod	No Center Rod	217074	216556	
23182-07		Replaced by 23182-08				
23182-08	4-1/4" HSA Box Down	NWML Rod Box	NWML Rod Pin	217443	216556	051308
23182-09	4-1/4" HSAHD Box Down	NW Rod Box(L.H.)	NWML Rod Pin	217555	217554	051308
23182-10	4-1/4" HSA Box Down	NW Rod Box (L.H.)	NWML Rod Pin	217567	216556	051308
23182-11	4-1/4" HSA Box Down	2" NPT L.H. Box	2-3/8" Mayhew Junior	217700	216556	052901

B-31/B-47 Center Rod

Assembly No.	Quick Change Size	Upper Connection	Lower Connection	Upper Adapter	Lower Adapter	Spindle Bushing
23176-01	3-1/4" HSA Pin Down	NW Rod Box (L.H.)	NWML Rod Box	217376	217377	216354
23176-11	3-1/4" HSA Box Down	NW Rod Box	NWML Rod Pin	216537	217190	216354
23176-12	3-1/4" HSA Pin Down	NW Rod Box (L.H.)	NWML Rod Pin	217376	217377	216354
23176-21	3-1/4" HSA Pin Down	NW Rod Box (L.H.)	NWML Rod Box	216451	216455	180455-13

B-47HD/B-53/B-80 Center Rod

Assembly No.	Quick Change Size	Upper Connection	Lower Connection	Upper Adapter	Lower Adapter	Spindle Bushing
23182-06	4-1/4" HSA Box Down	No Center Rod	No Center Rod	217074	216556	
23176-50	4-1/4" HSA Box Down	NW Rod Box (L.H.)	NWML Rod Pin	217639	216556	140489

B-90/B-4300/B-4500 Center Rod

Assembly No.	Quick Change Size	Upper Connection	Lower Connection	Upper Adapter	Lower Adapter	Lower Adapter	Spindle Bushing
23195-01	6-5/8" HSA Pin Down	2" NPT L.H. Internal	3-1/2" API Reg Pin	217529	217530	217745	180455-21
23195-02	6-5/8" HSA Pin Down	2" NPT Internal	3-1/2" API Reg Pin	217529	217530	217746	180455-21
		2-1/2" NPT External					
23195-03	6-5/8" HSA Pin Down	NW L.H. Internal	3-1/2" API Reg Pin	217529	217530	217788	180455-21
23195-04	6-5/8" HSA Pin Down	NW L.H. Internal	3-1/2" API Reg Pin	217894	217530	N/A	180455-21
23195-05	6-5/8" HSA Pin Down	NW L.H. Internal	3-1/2" API Reg Box	217529	217530	218555	180455-21
23195-06	6-5/8" HSA Pin Down	NW L.H. Internal	3-1/2" API Reg Pin	219053	217530	217788	180455-21
23195-07	6-5/8" HSA Pin Down	2-1/2" NPT L.H. Internal	4-1/2" I J	219053	217530	219053	180455-23
23195-08	6-5/8" HSA Pin Down	NW L.H. Internal	3-1/2" API Reg Pin	219103	219105	219102	180455-21

Key: * Designates weights less than 1 lb (.5kg)

† Consult Factory

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