

TUBULAR RUNNING SERVICE

Tubular Running Service

1. Handling tools

Handling tools are very important in any drilling operation. They are designed for suspending, moving, making up and breaking out and rotating tubulars in and around the well center and on the rig floor. Handling Tools are critical for successful well operations.

1.1 Manual Tongs

It is a tool of making up and breaking out the connections of tubular goods(eg.tubing, casing,dp,hwdp,dc,etc.) Changing lug jaws and latch steps can adjust different handling sizes of the tongs. They could interchange with NOV and Woolley etc, The tong is tough, heavy-duty designs with heat treated hinge pins and long-lasting"stagger tooth" tong dies(blue diamond,Pyramid).

Type	Size range (in)	Size range(mm)	Rating (KN·m)
LF(HT14)	2 3/8 to 7	60.3 to 177.8	22
C(HT35)	2 3/8 to 10 3/4	60.3 to 273.1	48
B (HT55)	3 1/2 to 13 3/8	88.9-339.7	55/75
SB	3 1/2 to 13 3/8	339.7 to 915	75/55/40
AAX	2 7/8 to 13 3/8	73 to 339.7	75/40
WWC	2 3/8 to 10 3/4	60.3 to 273.05	27/20/14
WWB	2 3/8 to 10 3/4	60.3 to 273.05	48/35
DB(HT65)	3 1/2 to 17	88.9 to 432	90/55
SDD(HT100)	4 to 17	101.6 to 431.8	135/100/80
Casing tong	13 3/8	339.7	8
Extended casing tong	13 3/8 to 25 1/2	339.7 to 647.7	35
	25 1/2 to 36	647.7 to 915	55
Workover tongs	2 3/8 to 10 3/4	60.3 to 273.05	35

1.2 Elevators

1.2.1 Manual operated elevator

It is a tool of lifting all existing pipe.

Type	Size Range(in)	Size Range(mm)	Rating range (ton)
DD center latch elevator	2 3/8 to 5 1/2	60.3 to 139.7	150 to 350
DDZ center latch elevator(18°)	2 3/8 to 6 5/8	60.3 to 168.28	100 to 750
CDZ drill pipe elevator (18°)	2 3/8 to 5 1/2	60.3 to 139.7	150 to 500
SX side door elevator	7 to 20	177.8 to 508	350 to 500
TA center latch elevator(DC)	2 7/8 to 11 1/4	73 to 285.75	35 to 150
TA center latch elevator(tubing)	1.05 to 5	26.67 to 127	35 to 125
TA center latch elevator(casing)	4 1/2 to 10 3/4	114.3 to 273.05	150
SLX side door elevator	3 1/2 to 14	88.9 to 355.6	65 to 350
CD side door elevator	2 3/8 to 9 7/8	60.3 to 250.82	100 to 750

1.2.2 Slip type elevator (Y series)

It is the tool of handling drill pipe, tubing and small casing.

Type	Size Range(in)	Size Range(mm)	Rating range (ton)
YT slip tubing elevator	1.315 to 3 1/2	33.4 to 88.9	75
HYT tubing elevator	2 3/8 to 3 1/2	60.3 to 88.9	150
MYT slip tubing elevator	1.315 to 2 7/8	33.4 to 73	40
LYT tubing elevator	1.05 to 1 1/16	26.7 to 52.4	20
HYC casing elevator	3 1/2 to 7 5/8	88.9 to 193.7	200
MYC casing elevator	3 1/2 to 7	88.9 to 177.8	125
YC casing elevator	3 1/2 to 7	88.9 to 177.8	75

1.2.3 Single joint elevator (Type SJ)

It is the tool of handling single casing or tubing.

Size Range(in)	Size Range(mm)	Rating range (ton)
2 3/8 to 2 7/8	60.3 to 73.03	45
3 1/2 to 4 3/4	88.9 to 120.7	45
5 to 5 3/4	127 to 146.1	45
6 to 7 3/4	152.4 to 193.7	45
8 5/8 to 10 3/4	219.1 to 273.1	45
11 3/4 to 13 3/8	298.5 to 339.7	45
13 5/8 to 14	346.1 to 355.6	45
16 to 20	406.4 to 508	45
21 1/2 to 24 1/2	546.1 to 622.3	60
26 to 28	660.4 to 711.2	60
30 to 36	762 to 914.4	60

1.2.4 Single joint elevators (Type SP)

It is the tool of handling single casing, tubing, and drill pipe, etc. with taper shoulder.

Type	Size Range(in)	Size Range(mm)	Rating range (ton)
SP5°	2 3/8 to 10 3/4	60.3 to 273.1	5
SP12°	2 3/8 to 4 1/2	60.3 to 114.3	5
SP18°	2 7/8 to 6 5/8	73.03 to 168.3	5

1.2.5 Single joint elevators (Type SJX)

It is the tool of running single joints of tubing and casing from V-door to well center working with CRT Casing Running Tools.

Type	Size Range(in)	Size Range(mm)	Rating range (ton)
SJX 5	2 3/8 to 4 1/2	60.3 to 114.3	5
SJX 5	4 1/2 to 7	114.3 to 177.8	5
SJX 5	7 to 10	177.8 to 254	5
SJX 5	10 to 14	254 to 355.6	5

1.2.6 Sucker rod elevator (Type SRE)

It is the tool of handling sucker rods.

Type	Size Range(in)	Rating range (ton)
SRE20	1/2, 5/8,3/4,7/8,1,1 1/8,1 1/4,1 1/2	20
SRE25	5/8,3/4,7/8,1	25

1.2.7 Air-operated elevator

It is the tool of handling tubulars through remote opening and closing.

Type	Size Range(in)	Size Range(mm)	Rating range (ton)
DD-150	4 1/8 to 8 3/8	104.7 to 212.7	150
DDZ-500	3 1/2 to 6 5/8	88.9 to 168.28	500

1.2.8 Hydraulic elevator

It is the tool of handling drill pipes, drill collars, casing and tubing through changing the bushing.

Type	Tubular	Size Range(in)	Size Range(mm)	Rating range (ton)
DDZH	Drill pipe with 18°taper	2 3/8 to 5	60.3 to 127	250 to 500
DDZH	Casing	4 1/2 to 7	114.3 to 177.8	250 to 500
DDZH	Drill Collar	3 1/8 to 6 3/4	79.38 to 171.5	250 to 500
DDZH	Tubing	2 3/8 to 5 1/2	60.3 to 139.7	250 to 500
CDZH	Drill pipe with 18°taper	3 1/2 to 6 5/8	88.9 to 168.3	500
CDZH	Casing	4 1/2 to 9 5/8	114.3 to 244.5	500
CDZH	DC	4 3/4 to 9 3/4	120.6 to 247.6	500
CDZH	Tubing	2 3/8 to 4 1/2	60.3 to 114.3	500

1.3 Slips

We supply a range of slips including drill pipe, rotary, drill collar, casing, and Pneumatic slips.

1.3.1 Drill pipe slips (Type SD)

They are used for drill pipes. According to gripping length, there is three types SDS(They are suitable for shallow drilling),SDML(They are suitable for medium drilling),SDXL(They are suitable for deep drilling.)

Slip body size(in): 3 1/2, 4 1/2, 5, 5 1/2, 5 7/8, 7

Type	Size Range(in)	Size Range(mm)
SDS (DP OD)	2 3/8 to 5	60.3 to 127
SDML(DP OD)	2 3/8 to 5 1/2	60.3 to 139.7
SDXL(DP OD)	3 1/2 to 7	88.9 to 177.8

1.3.2 Flake rotary slips (Type W)

Its structure is three segment type. It could handle different sizes of drill pipes, drill collars and casing through changing inserts or insert bowls.

Type	Tubulars Size range (in)	Tubulars Size range(mm)
W3 1/2-5/100	2 7/8 to 5	73 to 127
W5-7/100	5 to 7	127 to 177.8

1.3.3 Drill pipe slips (Type B)

This kind of slip has special design of transferring all torque to slip bodies, which prolong the life of slips.

Slip body size(in): 4 1/2, 5, 5 1/2

Type	Size Range(in)	Size Range(mm)	Depth of well(feet)
B short(DP OD)	2 3/8 to 4 1/2	60.3 to 114.3	8000
B Long(DP OD)	2 3/8 to 5 1/2	60.3 to 139.7	18000
X long(DP OD)	3 1/2 to 5	88.9 to 127	28500

1.3.4 Drill pipe Slips (Type DU)

Its feature is handling a large range of pipe sizes, owning light body.

Slip body size(in): 4 1/2, 5 1/2, 7

Type	Size Range(in)	Size Range(mm)
DU(DP OD)	2 3/8 to 7	60.3 to 177.8
DUL(DP OD)	2 3/8 to 7	60.3 to 177.8
SDU(DP OD)	3 1/2 to 7	88.9 to 177.8

1.3.5 Drill collar slips (Type DCS)

It is designed for handling drill collars, it could handling different sizes through changing inserts or the quantity of slip body.

Type	Size Range(in)	Size Range(mm)	Insert Bowl No.
DCS-S(DC OD)	3 to 4 7/8	76.2 to 123.8	API or NO.3
DCS-R(DC OD)	4 1/2 to 7	114.3 to 177.8	API or NO.3
DCS-L(DC OD)	6 3/4 to 14	171.4 to 355.6	API or NO.3 or NO.2 or NO.1

1.3.6 Drill collar slips (Type A)

It is a tool of multi-segment type slip, it could adjust according to the changes of drill collars' OD after abrasion.

Type	Size Range(in)	Size Range(mm)	Insert Bowl No.
A (DC OD)	3 to 11 1/4	76.2 to 298.45	API or NO.3 or NO.2

1.3.7 Drill collar slips (Type WT)

It could handle drill collars from 4 1/2" to 9 1/2".

Type	Size Range(in)	Size Range(mm)	Insert Bowl No.	Max.Load
WT4 1/2-6 (DC OD)	4 1/2 to 6	114.3 to 152.4	API or NO.3	40 short tons
WT5 1/2-7 (DC OD)	5 1/2 to 7	139.7 to 177.8	API or NO.3	40 short tons
WT6 3/4-8 1/4 (DC OD)	6 3/4 to 8 1/4	171.4 to 209.6	API or NO.3 or	40 short tons
WT8-9 1/2 (DC OD)	8 to 9 1/2	203.2 to 241.3	API or NO.3	40 short tons

1.3.8 Casing slips (Type UC-3)

The casing will not deform through using this kind of slip. It should work with spider and insert bowls with same taper.

Casing OD(in)	Spec. of Slip Body	Qty of Segments	Qty of Inserts	Taper	Rated Capacity(sTons)
7 to 42	8 5/8 to 13 3/8	10 o 32	10 to 32	1:3/4	250

1.3.9 Casing slips (Type CMS)

Casing OD(in)	Qty of Segments	With Insert Bowl No.
4 1/2" to 30"	9 to 37	API, No.1 or No.3

1.3.10 Pneumatic slips

It is a tool of pneumatic tools to hoist drill pipes and handling casing,tubing etc, match all range of rotary tables.

Type	Rotary Table Size(in)	Pipe Size(in)	Rated capacity(sTons)	Working pressure(Mpa)	Max. Pressure(Mpa)
PS175	17 1/2	2 3/8 to 5 3/4	150	0.6 to 0.8	1
PS205	20 1/2	2 3/8 to 5 3/4	250	0.6 to 0.8	1
PS275	27 1/2	2 3/8 to 9 7/8	350	0.6 to 0.8	1
PS375	37 1/2	2 3/8 to 14	500	0.6 to 0.8	1
PS16	27 1/2,37 1/2, 49 1/2	3 1/2 to 7 3/4	500	0.6 to 0.8	1
PS portable	23,27 1/2, 37 1/2,49 1/2	2 3/8 to 5 1/2	250/350	0.6 to 0.8	1
PS Slant hole	For slant hole drilling rig	2 7/8 to 13 3/8	250	0.6 to 0.8	1
PS560	560mm through hole	1.9 to 7	350	0.6 to 0.8	1

1.4 Links

Links is a tool of hanging elevators from top drive systems and hooks etc.

1.5.1 Weldless Links

Weldless links are forged from a single piece of high strength alloy steel and heat treated to provide maximum tensile strength.

Type	Rating(sTons)	Length(in)
Weldless links	150	71
	250	106
	350	130
	450	142

1.5.2 Perfection Links

Perfection links are for light loads. They are made by forging, bending and electric welding of high quality steel bar stock, which is then heat-treated and magnafluxed. For loads which exceed capacity ratings of Perfection Links, Weldless links are recommended.

Type	Rating(sTons)	Length(in)
Perfection links	75	60
	100	60
	150	67

1.5 Safty clamp

1.5.1 Safty clamp (Type MP)

It is a tool of handling drill collars,flush joint pipes and small shoulder pipes. It could applicate to various of pipes through add or less links. API7K.

Model	Size range(in)	Qty of links
MP-S	2 7/8 to 5	7 to 8
MP-R	4 1/2 to 10 1/2	7 to 11
MP-M	10 1/2 to 15 7/8	12 to 16
MP-L	15 7/8 to 19 3/8	17 to 19
MP-XL	19 3/8 to 30 1/2	19 to 28

1.5.2 Safty clamp (Type C and T)

It is a tool of handling flush joint pipes an drill collars.

Type	Pipe OD	Qty of links
WA-C	3 3/4 to 15 5/8	7 to 18
WA-T	1 1/8 to 4 1/2	4 to 6

1.6 Elevator/Spider

It is a tool of lifting and suspending tubulars, eg. tubing, heavy wall pipe and drill collars. The main body can be dressed as a casing elevator or as a spider. The elevator consists of an upper unit using a bell guide and bottom guide. The lower unit is dressed as a spider, using a top guide to aid in centering the casing.

Type	Pipe size(in)	Rating(sTons)	Normal operating Pressure(Mpa)	Max. operating Pressure(Mpa)
SE150	2 3/8 to 5 1/2	150	0.6 to 0.8	1
SE350(14)	4 1/2 to 14	350	0.6 to 0.8	1
SE350(20)	16 to 20	350	0.6 to 0.8	1
SE500(14)	4 1/2 to 14	500	0.6 to 0.8	1
SE500(24 1/2)	16 to 24 1/2	500	0.6 to 0.8	1
SE750	6 5/8 to 14	750	0.6 to 0.8	1

1.7 Spiders

1.7.1 Pneumatic Spiders

It is a tool of handling tubing, casing and drill pipe for drilling and repairing in oil well.

Type	Pipe size(in)	Spec. Of slip body	Rating(sTons)
C	1.315 to 5 1/2	3 1/2 to 5 1/2(integral)	80
CHD	1.315 to 5 1/2	3 1/2 to 5 1/2(integral)	120
HD	1.315 to 5 1/2	3 1/2 to 5 1/2(integral)	125
E	2 3/8 to 7 5/8	3 1/2 to 7 5/8(integral)	175
QQP/60	2 3/8 to 3 1/2		60
QQP/75	2 3/8 to 3 1/2		75
QQP/100	2 3/8 to 5		100

1.7.2 Tubing Spider (Type TS)

It is a tool of handling drill collars, casings,tubings and slick pipes.

Type	Pipe size(in)	Rating(sTons)
TS 3 1/2-100	1.05 to 3 1/2	100
TS 5 1/2-100	2 3/8 to 5 3/4	100

1.7.3 API Spider

It has the same ID and 1:3 taper with API split master bushing.

Type	Pipe size(in)	Rating(sTons)
8 5/8 API spider	2 1/8 to 8 5/8	100
9 5/8 API spider	9 5/8 to 10 3/4	150

1.7.4 Hinged Casing Spider

The spider body is hinged type, the insert bowl is split type. It should be put on rotary table to operate, applicable to various sizes of casing.

Type	Pipe size(in)	Rating(sTons)
JOY 13 3/8/200	7 to 13 3/8	200
JOY 20/200	7 to 20	200
JOY 30/200	16 to 30	200
JOY 36/200	18 5/8 to 36	200
JOY 30/500	16 to 30	500
JOY 36/500	18 5/8 to 36	500
HCS 20/500	2 3/8 to 20	500

1.8 Bushings

1.8.1 Casing bushings and insert bowls

It is a tool of handling casing from 2 3/8in to 30in. Type CU and CUL are solid bushings. Type CB is split bushings.

Rotary table size(in)	Type	Casing size (in)							
		2 3/8 to 8 5/8	9 5/8 to 10 3/4	11 3/4 to 13 3/8	16	18 5/8 to 20	24	26	30
17 1/2 to 20 1/2	CU	Body bushing 3102+insert bowl 1809	Body bushing 3102 + insert bowl 1902	Body bushing 3102					
27 1/2	CUL	Body bushing 3103+insert bowl 3105 +1809	Body bushing 3103 + insert bowl 3105 +1902	Body bushing 3103 + insert bowl 3105	Body bushing 3103+ insert bowl 3104	Body bushing 3103			
27 1/2	CB	Body bushing 6695+ insert bowl 6126A+ 6115	Body bushing 6695+ insert bowl 6126A+ 6114	Body bushing 6695+insert bowl 6126A	Body bushing 6695+insert bowl 6127	Body bushing 6695			
37 1/2	CB	Body bushing 10187,10188, 10189,11553 + insert bowl 6126A + 6115	Body bushing 10187,10188,10189,11553+ insert bowl 6126A+6114	Body bushing 10187,10188,10189,11553+insert bowl 6126A	Body bushing 10187,10188, 10189,11553+ insert bowl 6127	Body bushing 10187, 10188, 10189, 11553	Body bushing 11253	Body bushing 16454	Body bushing 11763

1.8.2 Master bushings and insert bowls

API standard drill pipe slips, drill collar slips, casing slips and roller kelly bushing could be put in, could be exchanged with NOV, Emsco, Ideco, gardner.

Type	Rotary table size(in)	Insert bowl	Pipe size(in)
MSS(solid) (Square drive)	17 1/2 to 23	insert bowl 1011	2 3/8 to 7 5/8
		Extended insert bowl 1024	2 3/8 to 8 5/8
	27 1/2	insert bowl 1022	2 3/8 to 7 5/8
		Extended insert bowl 1025	2 3/8 to 8 5/8
		Insert bowl 1026	9 5/8 to 10 3/4
Insert bowl 2002	11 3/4 to 13 3/8		
MSS(Split) (Square drive)	17 1/2 to 27 1/2		2 3/8 to 7 5/8
MSPC(solid) (pin drive)	20 1/2 to 22 1/2	insert bowl 1809	2 3/8 to 8 5/8
		insert bowl 1902	9 5/8 to 10 3/4
		master bushing1805-1	11 3/4 to 13 3/8
		master bushing19333	11 3/4 to 13 3/8
	23 to 27 1/2	Insert bowl 1810	2 3/8 to 8 5/8
		Insert bowl 1904	9 5/8 to 10 3/4
Insert bowl 1903		11 3/4 to 13 3/8	
MDSP(split) (pin drive)	17 1/2 to 20 1/2		2 3/8 to 8 5/8
MSP(split) (pin drive)	27 1/2		2 3/8 to 8 5/8
MPCH(pin drive)	37 1/2	Insert bowl 6608	2 3/8 to 8 5/8
		Insert bowl 6609	9 5/8 to 10 3/4
		Insert bowl 6610	11 3/4 to 13 3/8
	49 1/2	MPCH 37 1/2	2 3/8 to 13 3/8

1.9 Master bushing accessories

1.9.1 Bit breaker adapter plate

It is installed inside of master bushing drive pin holes.

1.9.2 Lifting slings

It is used for carrying and lifting bushings and insert bowls.

1.9.3 Bit breaker

It could break out tricone bits.

1.9.4 Drill pipe power tongs

1.10 Roller kelly bushings

There is two ways of drive: square drive and pin drive.

There is three types: heavy,medium and light-duty.

Model	Type	Drive way	Kelly size(in)	
			Squre	Hex
HDS	Heavy duty	Square drive	2 1/2 to 6	3 to 6
27-HDP	Heavy duty	Pin drive	2 1/2 to 6	3 to 6
20-HDP	Heavy duty	Pin drive	2 1/2 to 6	3 to 6
RTM4	Medium duty	Square drive	2 1/2 to 5 1/4	3 to 4 1/4
RTS4	Light duty	Square drive	2 1/2 to 4 1/4	3 to 4 1/4

1.11 Power tools

1.11.1 Spinning wrenches

SSW40 spinning wrench is a kind of wheel-type spinning tool.

DP and DC size(in)	Working pressure(Mpa)	Air consumption	Spinning speed
3 1/2 to 9 1/2	0.62 to 0.83	32m/min	0-120r/min(5" dp)

1.11.2 Kelly Spinner

It is a tool of connecting single pipe by working with mouse hole clamping device.

Type	Drive mode	Max.pressure (psi)	Stall torque (ft/lb)
KS-6600	Air	72 to 130	1100
KS-6800	Hydraulic	2000	1215

1.12 Others:

1.12.1 Quick release thread protectors

It is a tool of protect thread through convient operation during transporting or using, it is easy to lock and loose thread. Made of strong wear-resistant rubber,high strength steel for liner.

Used for a wide range of thread types, eg BTC,LTC,STC etc.

Pipe size range: 2 3/8" to 24"

1.12.2 Thread protector air inflatable;

1.12.3 Stabbing Guide

It is a tool of matching connections easily and quickly, protecting thread during operating

Used for a wide range of thread types, eg BTC,LTC,STC etc.

Pipe size range: 2 3/8" to 24"

1.12.4 Inserts and dies

We also have special inserts could let you use your standard handling tools with corrosion-resistant alloy (CRA) tubulars);

1.12.5 Fill and circulate tools

2. Hydraulic Power Unit(HPU)

Electric power units or diesel power units are available to supply hydraulic power for all onshore and offshore applications. The air/water cooled hydraulic power units especially are suitable for hot desert and for continuous working environment. All the parts are explosion-proof.

3. Power tong

3.1 Drill pipe tong

It is a tool of making up and breaking out in drilling well and workover operations

Type	Pipe size range	Max.Torque(fl.lb)
DPT 5	DP size 2 1/2" to 5"(coupling size 2 3/8" to 3 1/2")	18440
	Casing size 2 1/2" to 5"(coupling size 2 3/8" to 3 1/2")	
	Tubing size 2 1/2" to 5"(coupling size 2 3/8" to 3 1/2")	
DPT 6 3/8	DP size 3.35" to 6 3/8"(coupling size 2 3/8" to 5")	36880
	Casing size 4 1/2" to 6" (coupling size 4 1/2" to 5 1/2")	
	Tubing size 5.43" to 6.14" (coupling size 3 1/2" to 4 1/2")	
DPT 8	DP size 5" to 8" (coupling size 3 1/2" to 8")	73750
DPT 8(2)	DP size 5" to 8" (coupling size 3 1/2" to 8")	92200

3.2 Casing tong

It is a tool of making up and breaking out casing or tubulars.

Type	Pipe size range(in)	Max.Torque(fl.lb)
CPT 7	4" to 7"	12900
CPT 7(Hydra.)	4" to 7"	13270
CPT 13 3/8	4 1/2" to 13 3/8"	29500
CPT 13 3/8(Hydra.)	4 1/2" to 13 3/8"	27285
CPT 13 3/8(Hydra.2)	4 1/2" to 13 3/8"	42775
CPT 14	4 1/2" to 14"	42030
CPT 14(Hydra.)	4 1/2" to 14"	52000
CPT 20(Hydra.)	9 5/8" to 20"	66375

3.3 Casing backup tong

Type	Pipe size range(in)	Max.Torque(fl.lb)
CBT 7.63	CBT 14.37(Hydra)	11800
CBT 14.37	5" to 14.37"(coupling size:4 1/2" to 13 3/8")	25810
CBT 7	5 1/2 to 7" (coupling size:5 1/2")	11800
CBT 14.37(Hydra)	5" to 14.37(coupling size:4 1/2" to 13 3/8")	25810

3.4 Tubing tong

It is a tool of making up and breaking out of a range of tubings and small casing and small drill pipes in well service. It could be equipped with automatic torque control system.

Type	Pipe size range(in)	Max.Torque(fl.lb)
TPT 3 1/2	main tong 2 3/8" to 3 1/2"(backup tong:2 3/8" to 4 1/2")	2213
TPT 4 1/2	main tong 2 7/8" to 4 1/2"(backup tong:3 1/2" to 5 1/8")	4425
TPT 5 1/2	main tong 2 7/8" to 5 1/2"(backup tong:3 1/2" to 6 1/8")	8851
TPT 5 1/2-T	main tong 1.9" to 5 1/2"(backup tong:2 3/8" to 6 1/8")	8851