



Hammer Unions and Swivel Joints



Hammer Unions

Material

DINGLI unions are manufactured from steel forgings using materials appropriate to specific pressure ratings.

End Connections

DINGLI unions are available in a choice of end connections. API line pipe threads are standard. Butt weld and socket weld ends can be provided.

Sour Service

Sour service is available and all H2S service parts of DINGLI unions conform to the latest NACE specifications.

Low Temperature Service

DINGLI unions can be supplied for low temperature applications with suitable impact value testing.

Interchangeability

All DINGLI union components of the same size and figure are WECO interchangeable. All DINGLI union nuts have 3 hammer lugs.

Hammer Union Quick Reference Chart

Assembly Colour Key for Standard Service	Pressure Rating(Psi)				Nominal Pipe Size(inch.mm)															
	Standard Service		Sour Gas Service		1/8	1/4	1/2	3/4	2	2 1/2	3	4	5	6	8	10	12			
	Cold Working	Test	Cold Working	Test	25	32	40	50	65	80	100	125	150	200	250	300				
Fig. No.																				
50		500	750	NA	NA							✓	✓							
100		1'000	3'000	NA	NA				✓	✓	✓	✓		✓	✓					
200		2'000	3'000	NA	NA	✓	✓	✓	✓	✓	✓	✓		✓	✓					
206		2'000	3'000	NA	NA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
207		2'000	3'000	NA	NA						✓	✓		✓						
211		2'000	3'000	NA	NA		✓	✓	✓	✓	✓	✓								
400		2'500	3'750	2'500	3'750									✓	✓		✓			
400		4'000	6'000	4'000	6'000				✓	✓	✓	✓								
600		4'000	6'000	NA	NA				✓	✓	✓	✓								
602		6'000	9'000	6'000	9'000	✓		✓	✓	✓	✓	✓	✓							
1002		10'000	15'000	7'500	12'000	✓	✓	✓	✓	✓	✓	✓	✓							
1003		10'000	15'000	7'500	12'000				✓		✓	✓	✓							
1502		15'000	75'000	10'000	15'000	✓			✓		✓	✓								
2002		20'000	75'000	NA	NA				✓		✓	✓								
2202		NA	NA	15'000	22'500				✓		✓	✓								

Frac Subs/Hose Unions



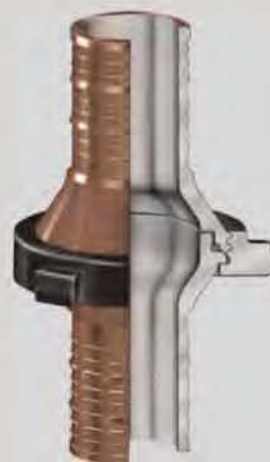
Line Pipe Threads



Socket Weld with Female Plug Assembly



Socket weld



Hose Nipple

FIG 50 UNION

500 PSI CWP



Recommended for air, Water, oil or gas service to 500 PSI NSCWP. Standard subs are threaded for API line pipe.

SIZE	LENGTH	NUT RADIUS	WEIGHT Kg.
4"	6"	5 ^{1/8"}	12.5
5"	5"	5 ^{1/4"}	10.00

FIG 100 UNION

1'000 PSI CWP



Recommended for air, water, oil, or gas service to 1'000 PSI NSCWP. Standard subs are threaded for API line pipe and are WECO interchangeable. Also available with butt weld ends.

SIZE	LENGTH	NUT RADIUS	WEIGHT Kg.
2"	3 ^{5/8"}	2 ^{29/32"}	2.38
2 ^{1/2"}	4 ^{9/32"}	2 ^{5/8"}	3.60
3"	5 ^{1/8"}	4"	6.36
4"	5 ^{3/4"}	4 ^{11/16"}	10.45
6"	6 ^{7/8"}	6 ^{7/8"}	20.20
8"	7 ^{5/16"}	7 ^{13/16"}	27.70

FIG 200 UNION

2'000 PSI CWP



Recommended for air, water, oil, or gas service to 2000 PSI NSCWP. A union of great utility meeting most requirements in the medium pressure ranges. Precision seating surfaces assure dependable pressure seal. Standard subs are threaded for API line pipe and are WECO interchangeable. Sizes of 2" and above also available with butt weld end connections.

SIZE	LENGTH	NUT RADIUS	WEIGHT Kg.
1"	2 ^{19/32"}	2"	0.80
1 ^{1/4"}	2 ^{25/32"}	2 ^{5/32"}	1.07
1 ^{1/2"}	2 ^{29/32"}	2 ^{13/32"}	1.07
2"	3 ^{1/4"}	2 ^{29/32"}	2.38
2 ^{1/2"}	4 ^{1/4"}	3 ^{5/8"}	4.50
3"	4 ^{17/32"}	4 ^{1/4"}	6.90
4"	4 ^{15/16"}	5"	9.14
6"	6 ^{25/32"}	6 ^{1/2"}	19.30
8"	7 ^{5/16"}	7 ^{13/16"}	29.10
10"	9 ^{3/32"}	9 ^{1/16"}	41.36

FIG 206 UNION

2'000 PSI CWP



Recommended for air, water, oil or gas service to 2'000 PSI NSCWP. A O ring is mounted on the plain sub to provide an additional seal. Subs and nuts of the Fig.206union are interchangeable with the Fig.200 Union. Standard subs are threaded for API line pipe. Sizes of 2" and above also available with butt weld ends Connections.

SIZE	LENGTH	NUT RADIUS	WEIGHT Kg.
1"	2 ^{19/32"}	2"	0.80
1 ^{1/4"}	2 ^{25/32"}	2 ^{5/32"}	1.07
1 ^{1/2"}	2 ^{29/32"}	2 ^{13/32"}	1.07
2"	3 ^{1/4"}	2 ^{29/32"}	2.38
2 ^{1/2"}	4 ^{1/4"}	3 ^{5/8"}	4.50
3"	4 ^{17/32"}	4 ^{1/4"}	6.90
4"	4 ^{15/16"}	5"	9.10
6"	6 ^{25/32"}	6 ^{1/2"}	19.30
8"	7 ^{5/16"}	7 ^{13/16"}	29.10
10"	9 ^{3/32"}	9 ^{1/16"}	41.36

*All weights are approximate
NSCWP-Non Shock Cold Working Pressure

FIG 207 UNION

2'000 PSI CWP



Recommended for air, water, oil, or gas service to 2'000 PSI NSCWP. A blanking cap with O ring seal provides an efficient and dependable closure. The threaded sub is interchangeable with Fig.200 threaded sub. Also available with butt weld ends.

SIZE	LENGTH	NUT RADIUS	WEIGHT Kg.
3"	3 ^{3/4} "	2 ^{3/4} "	4.45
4"	4 ^{45/64} "	3 ^{17/32} "	7.38
6"	5 ^{37/64} "	4 ^{27/32} "	17.10

FIG 400 UNION

4'000 PSI CWP

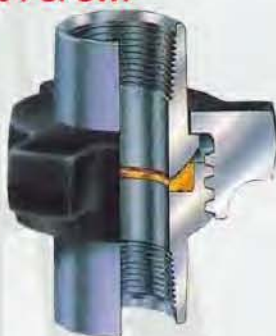


Recommended for air, water, oil, or gas service to 4'000 PSI NSCWP. Utilizes precision ball and cone seating surfaces for easy alignment and dependable pressure seal. Sizes over 4" are rated to 2'500 PSI NSCWP. Also available with a lip-type seal in 2" size only as Fig. 402.

SIZE	LENGTH		NUT RADIUS	WEIGHT Kg.
	TOTAL	CTR.BR.		
2"	5 ^{1/4} "	1/4"	3 ^{9/16} "	5.00
2 ^{1/2} "	6 ^{3/16} "	3/8"	4 ^{1/4} "	8.30
3"	6"	3/8"	4 ^{1/4} "	8.75
4"	8 ^{7/32} "	3/8"	5"	14.50
6"	1 ^{11/32} "	3/8"	6 ^{5/8} "	28.80
8"	11 ^{13/32} "	3/8"	7 ^{5/8} "	42.70
12"	10 ^{7/8} "	3/8"	10 ^{1/4} "	74.43

FIG 600 UNION

6'000 PSI CWP



Recommended for air, oil, gas or steam service to 6'000 PSI NSCWP. Rugged and fast 2 pitch acme thread makes this the quickest union to make-up or break out(only two turns). The threaded sub is fitted with a bronze seat insert for added effectiveness in pressure sealing.

SIZE	LENGTH		NUT RADIUS	WEIGHT Kg.
	TOTAL	CTR.BR.		
1"	3 ^{9/16} "	1/4"	2 ^{5/32} "	1.59
1 ^{1/2} "	4 ^{7/8} "	1/4"	3 ^{7/32} "	4.30
2"	6 ^{7/16} "	1/4"	3 ^{3/4} "	6.80
2 ^{1/2} "	7 ^{9/16} "	3/8"	4 ^{1/4} "	9.10
3"	8 ^{11/16} "	3/8"	4 ^{1/2} "	13.18
4"	10 ^{1/16} "	3/8"	5 ^{1/4} "	18.63

FIG 602 UNION

6'000 PSI CWP



Recommended for air, water, oil, gas or mud service to 6'000 PSI NSCWP. This union has a replaceable lip-type seal ring which specifically designed to minimize fluid flow turbulence. Lip-type ring provides a pressure seal and protection for metal-to-metal seating surfaces. Smaller and lighter than Fig.600 unions and are truck counting where size and weight are critical.

SIZE	LENGTH		NUT RADIUS	WEIGHT Kg.	LENGTH BUTT.WELD SCH.80
	TOTAL	CTR.BR.			
1"	3 ^{17/32} "	1/4"	2 ^{5/32} "	1.59	3 ^{17/32} "
1 ^{1/4} "	4 ^{29/32} "	1/4"	3 ^{7/32} "	4.54	4 ^{11/16} "
1 ^{1/2} "	4 ^{29/32} "	1/4"	3 ^{7/32} "	4.10	4 ^{11/16} "
2"	5 ^{1/4} "	1/4"	3 ^{3/4} "	5.90	5 ^{1/32} "
2 ^{1/2} "	6 ^{1/8} "	3/8"	4 ^{1/4} "	8.20	5 ^{1/8} "
3"	6 ^{1/4} "	3/8"	4 ^{1/2} "	10.45	5 ^{7/16} "
4"	8 ^{1/4} "	3/8"	5 ^{7/32} "	15.00	6 ^{1/16} "

*All weights are approximate

NSCWP-Non Shock Cold Working Pressure

FIG 1002 UNION

10'000 PSI CWP



Recommended for air, water, oil, gas and mud service to 10'000 PSI NSCWP. This union has a replaceable lip-type seal ring which specifically designed to minimize fluid flow turbulence. The lip-type ring works similarly as in the Fig.602 union. These unions are for use on high pressure systems and trucks.

SIZE	LENGTH		NUT RADIUS	WEIGHT Kg.	LENGTH
	TOTAL	CTR.BR.			BUTT.WELD SCH.80
1"	3 ^{17/32"}	1/4"	2 ^{5/32"}	1.59	3 ^{17/32"}
1 1/4"	4 ^{7/8"}	1/4"	3 ^{7/32"}	4.54	-
1 1/2"	4 ^{7/8"}	1/4"	3 ^{7/32"}	4.10	4 ^{11/16"}
2"	5 ^{1/4"}	1/4"	3 ^{3/4"}	6.00	5 ^{1/32"}
2 1/2"	5 ^{15/16"}	3/8"	4 ^{1/4"}	7.95	5 ^{1/8"}
2 1/2"EU	6 ^{1/8"}	3/8"	4 ^{1/4"}	7.95	-
3"	6 ^{1/4"}	3/8"	4 ^{1/2"}	10.00	5 ^{3/8"}
4"	8 ^{1/4"}	3/8"	5 ^{7/32"}	17.95	5 ^{11/16"}
5"	-	-	6 ^{1/4"}	25.90	5 ^{15/16"}

5" size rated at 7'500 PSI CWP and 12'000 PSI test, 5" unions for sour gas rated at 5'000 PSI CWP and 7'500 PSI test

FIG 1003 UNION

10'000 PSI CWP



Recommended for high pressure manifolding and drilling rig use where alignment of piping components is a problem. Recommended for air, water, oil, gas or mud service to 10'000 PSI NSCWP. This union has a ball seat that allows a total of 150(±7-1/20) angular adjustment. An O ring seal in addition to the metal-to-metal seat assures a pressure tight connection.

SIZE	LENGTH		NUT RADIUS	WEIGHT Kg.
	TOTAL	CTR.BR.		
2"	4 ^{3/4"}	-	3 ^{1/2"}	05.64
3" LP THD	9 ^{1/8"}	3/8"	4 ^{7/8"}	20.45
3" SCH 160	8 ^{7/8"}	-	4 ^{7/8"}	21.60
3" XX HVY	9 ^{1/8"}	-	4 ^{7/8"}	22.00
4" LP THD	10 ^{15/16"}	1/2"	6"	32.95
4" SCH 160	10 ^{11/16"}	-	6"	34.54
4" XXX HVY	10 ^{5/16"}	-	6"	35.45
5" SCH 160	10 ^{9/16"}	-	6"	33.63
5" XX HVY	10 ^{5/16"}	-	6"	34.77

5" size rated at 7'500 PSI CWP and 12'000 test, 5" unions for sour gas rated at 5'000 PSI CWP and 7'500 PSI test

FIG 1502 UNION

15'000 PSI CWP



Recommended for air, water, oil, gas and mud service to 15'000 PSI NSCWP. This union has a replaceable lip-type seal ring with specifically designed to minimize fluid flow turbulence. The lip-type ring also provides a pressure seal and protection for metal-to-metal seating surface and are recommended for manifold and truck mounting or other installations where high pressure is encountered.

SIZE	LENGTH		NUT RADIUS	WEIGHT Kg.	LENGTH
	TOTAL	CTR.BR.			BUTT.WELD XX HVY
1"	4 ^{3/8"}	1/4"	2 ^{3/4"}	3.82	-
2"	7"	1/4"	4"	9.54	6 ^{1/4"}
3"	7 ^{5/8"}	3/8"	4 ^{13/16"}	14.1	5 ^{1/4"}
4"	8 ^{1/2"}	1/2"	6 ^{1/16"}	34.0	-

Derates to 10'000 PSI WP for sour service

FIG 2002 UNION

20'000 PSI CWP



Recommended for standard service to 20'000 PSI NSCWP. Available in butt weld end connections only. Available as Fig. 2202 for sour service(15'000 PSI WP).

SIZE	LENGTH	NUT RADIUS	WEIGHT Kg.
2"	7 ^{3/8"}	3 ^{23/32"}	10.45
3"	8 ^{5/8"}	6 ^{5/32"}	21.80
4"	8 ^{1/2"}	6"	34.50

*All weights are approximate
NSCWP-Non Shock Cold Working Pressure

Swivel Joints



Available in sizes 3/4" through 3" up to 15'000 PSI non-shock cold working pressure, DINGLI Swivel Joints offer the following features...

- Minimum flow restriction
- Heavy duty hex head style ball loading plug
- Grease retainer ring (ensures clean ball race)
- Standard packing units (Operating temperature to 2250F)
- High temperature packing units (Operation temperature to 4500F)
- Superior hardened ball races ensure uniform surface hardness and depth for longer life under severe thrust and radial loading.

Standard Swivel Joints are provided with API line pipe threads.

Other end connections are available on request.

Available for standard and sour service.

All sizes are available in 8 styles, for 3600 rotation in 1, 2 or 3 planes.

Quick Reference Chart

MODEL	COLOR CODE	NSCWP	END CONNECTIONS	Standard Service						Sour Service					
				SIZE(inch)						SIZE(inch)					
				3/4	1-1/4	1-1/2	1	2	3	3/4	1-1/4	1-1/2	1	2	3
Low Pressure	BLUE	1000	Female Line Pipe Threads					✓	✓						
High Pressure	OLIVE GREEN	6000	Fig. 602 Union											✓	✓
	SILVER	6000	Female Line Pipe Threads	✓	✓	✓	✓	✓	✓						
Extra High Pressure Long Sweep	OLIVE GREEN	7500	Fig. 1002 Union												
	OLIVE GREEN	10000	Fig. 1502 Union											✓	✓
	BLACK	10000	Female Line Pipe Threads					✓	✓					✓	✓
	OLIVE GREEN	15000	Fig. 2202												
	RED	15000	Fig. 1502					✓	✓					✓	✓
	LIGHT BLUE	20000	Fig. 2002					✓	✓						

Long Radius Swivel Joints

All models are made from closed die forged alloy steel body members.



STYLE NO.10
MxM Union Ends



STYLE NO.50
MxF Union Ends



STYLE NO.10
MxF Union Ends



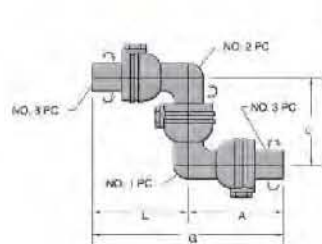
STYLE NO.10
Threaded Ends



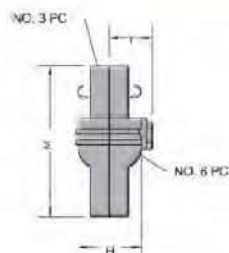
STYLE NO.50
Threaded Ends

Swivel Joints

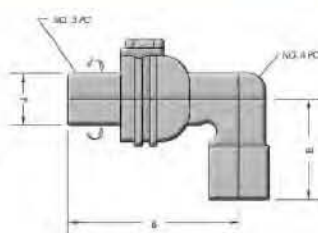
Short Radius Swivel Joints



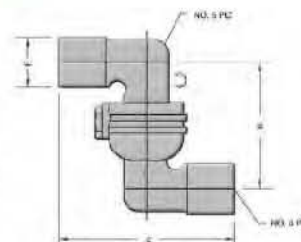
Style No. 10
(Three Planes of Rotation)



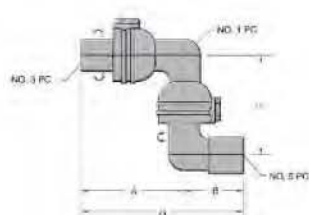
Style No. 20
(One Plane of Rotation)



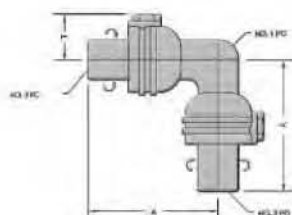
Style No. 30
(One Plane of Rotation)



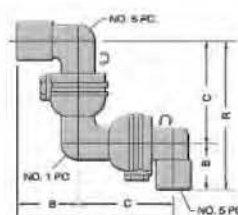
Style No. 40
(One Plane of Rotation)



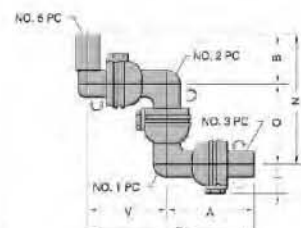
Style No. 50
(Two Planes of Rotation)



Style No. 60
(Two Planes of Rotation)



Style No. 70
(Two Planes of Rotation)



Style No. 80
(Three Planes of Rotation)

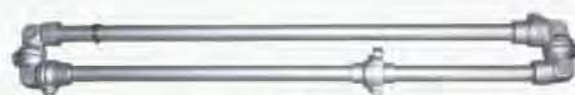
SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	R	S	T	V
3/4", 1"	4 ^{5/8}	2 ^{23/32}	4 ^{7/32}	7 ^{11/32}	5 ^{7/16}	1 ^{3/4}	9 ^{1/4}	2 ^{7/16}	1 ^{3/4}	4 ^{7/32}	4 ^{5/8}	5 ^{3/16}	6 ^{15/16}	4 ^{7/32}	8 ^{27/32}	6 ^{15/16}	4 ^{5/8}	1 ^{7/8}	4 ^{7/32}
1 1/4", 1 1/2"	4 ^{23/32}	3 ^{3/16}	4 ^{9/32}	7 ^{25/32}	6 ^{3/8}	2 ^{1/2}	9 ^{7/16}	2 ^{7/8}	2 ^{3/8}	4 ^{9/32}	4 ^{23/32}	5 ^{15/32}	7 ^{15/32}	4 ^{9/16}	9 ^{9/16}	7 ^{15/32}	4 ^{23/32}	2 ^{1/8}	4 ^{27/32}
2"	5 ^{27/32}	4 ^{1/32}	5 ^{7/8}	9 ^{7/8}	8 ^{1/16}	3 ^{1/8}	12 ^{5/16}	4 ^{1/8}	3 ^{5/16}	5 ^{7/8}	6 ^{15/32}	6 ^{21/32}	10 ^{1/32}	6	12 ^{11/32}	9 ^{29/32}	5 ^{27/32}	2 ^{21/32}	6 ^{1/2}
2 1/2"	7 ^{1/8}	4 ^{7/8}	7 ^{11/16}	12	9 ^{3/4}	4	14 ^{1/4}	4 ^{1/2}	3 ^{3/4}	7 ^{13/16}	7 ^{1/8}	8 ^{3/4}	12 ^{3/16}	7 ^{11/16}	14 ^{13/16}	12 ^{9/16}	7 ^{1/8}	7 ^{1/8}	7 ^{11/16}
3"	8 ^{5/8}	4 ^{5/8}	7 ^{15/16}	13 ^{1/4}	9 ^{1/4}	4 ^{5/16}	18 ^{1/16}	5 ^{13/16}	4 ^{1/2}	8 ^{3/4}	9 ^{7/16}	9 ^{1/8}	12 ^{9/16}	7 ^{15/16}	17 ^{3/8}	12 ^{9/16}	9 ^{7/16}	9 ^{7/16}	8 ^{3/4}

Steel Hose Assemblies

High pressure cementing and circulating hoses incorporate swivel joints of forged steel with superior quality hardened ball races and high pressure type packing units.

Pup Joints

Available with integral, welded or NPST union end connections from 10'000 to 15'000 PSI NSCWP for standard and sour service.



One wing union and two style 50 or style 10 swivel joints with threaded ends.



One wing union and one each style 50 and style 10 swivel joints with integral wing union ends.











Four wing unions and two style 50 or style 10 swivel joints with integral wing union ends













Other products

DINGLI also supply manufactures Flange to Wing Adapters, Wing to Wing Adapters, Flanged Tees and Crosses and Assortment other products having usage in varied oilfield applications.



Integral Fitting Specifications

Nom.Size In.			1	1.5	2			3			4		
Figure No.			1502	1502	602	1502	2002	602	1502	2002	602	1002	1502
CWP(PSI)			15'000	15'000	6'000	15'000	20'000	6'000	15'000	20'000	6'000	10'000	15'000
Longsweep Elbow		FxM Wt.(kg)			10	12.6		24.5	22.9		40.4	40.4	
		FxM Wt.(kg)			12.4	14.7		45.6	46.3	100			
Elbows		MxM Wt.(kg)			16.3	18.5		52.2	54.9				
		FxF Wt.(kg)			8.2	10.9		38.1	39.5				
Tees		FxFxF Wt.(kg)	13.2	15.4	12	13.2	14.5	50.8	51.7	99.8	44.9	45.8	90.7
		FxFxM Wt.(kg)	14.4	18	14.2	17	19	56.2	58	115	51.7	52.6	106
		FxMxF Wt.(kg)	14.4	18	14.2	17	19	56.2	58	115	51.7	52.6	106
		FxMxM Wt.(kg)	15.9	21.1	16.3	20.9	23.6	61.7	64.4	129	57.6	59	122

Nom. Size In.		1	1.5	2			3			4		
Figure No.		1502	1502	602	1502	2002	602	1502	2002	602	1002	1502
CWP(PSI)		15'000	15'000	6'000	15'000	20'000	6'000	15'000	20'000	6'000	10'000	15'000
Tees	 MxMxF Wt.(kg)	15.9	21.1	16.3	20.9	23.6	61.7	64.4	129	57.6	59	122
	 MxMxM Wt.(kg)	17.2	23.6	18.6	24.7	28.1	67.1	70.8	144	64	64.9	137
Longsweep Elbow	 MxM Wt.(kg)			12.2	34	15.4	30	29.5		46.3	46.3	
Crosses	 FxFxFxF Wt.(kg)		31.8	26.3	26.8		71.2	61.7		65.3	65.5	
	 FxFxMxF Wt.(kg)		35	28.1	30		76.2	80.7		71.2	71.2	
	 FxFxMxM Wt.(kg)		37.6	30.4	33.1		81.6	83		77.1	77.1	
	 FxMxMxF Wt.(kg)		37.6	30.4	33.1		81.6	83		77.1	77.1	37.6
Crosses	 FxMxMxM Wt.(kg)		40.4	32.7	36.3		87.1	89.4		83	83	
	 MxMxMxM Wt.(kg)		142.6	35	39.5		92.1	95.7		89.4	89.4	
Laterals	 MxFxF Wt.(kg)	26.3	27.9	21.5	24.3			40.1		53.1	78.9	141
	 FxFxF Wt.(kg)	25.4						40.9				
Wyes	 MxFxF Wt.(kg)		20	12.7	12.2	12.7						

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