

M D-II PRACTICAL

AIM : To design joint of given dimension

Software Used : Solid Works 2020

THEORY : A Knuckle Joint is mechanical joint used to connect 2 rods which are under tensile load. There is small amount of flexibility, angular movement.

Knuckle joint consists of following major components :-

1. Single Eye
2. Fork
3. Knuckle Pin

Modes of failure :-

1. Shear failure of pin.
2. Crushing of pin against rod
3. Tensile failure of bolt & bar.

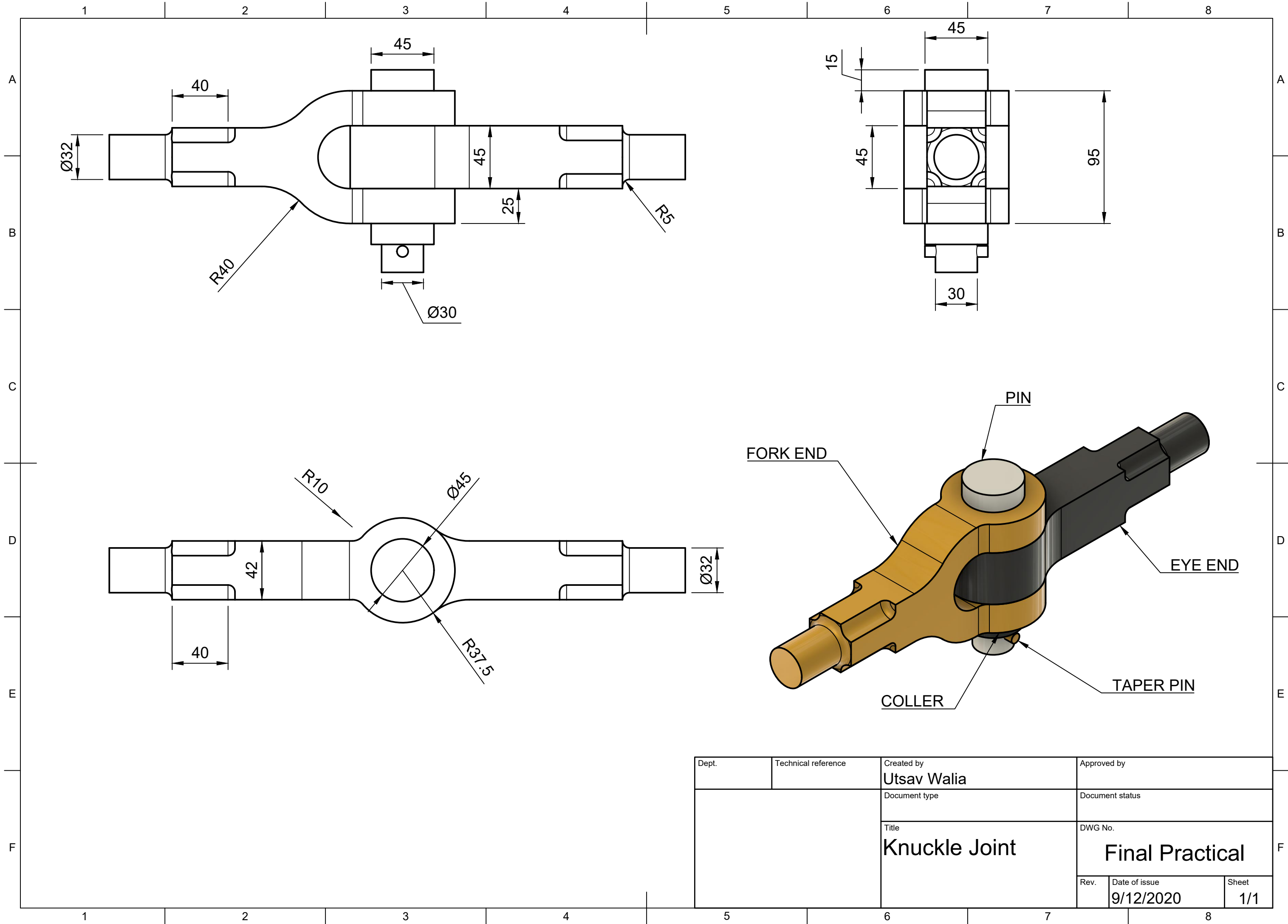
APPLICATIONS :

1. Link of roller chain.
2. Used in Tractor \rightarrow Knuckle Joint.

3. Rod of jib crane.
4. Tension link in bridge structure.
5. Tie rod joint of roof truss.

COMMANDS USED:-

1. Extrude
2. Move
3. Mirror
4. Fillet
5. Circle
6. Rectangle



Dept.	Technical reference	Created by Utsav Walia	Approved by	
		Document type	Document status	
		Title Knuckle Joint	DWG No. Final Practical	
			Rev.	Sheet
			Date of issue 9/12/2020	1/1